AGLS Metadata Element Set
Part 2: Usage Guide

A non-technical guide to using
AGLS metadata for describing resources

Version 1.3

National Archives of Australia

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This document is provided by the National Archives of Australia as the most up-to-date version of the AGLS standard. It is not an official standard of Standards Australia, but is provided free of charge to those organisations wishing to obtain the most recent version of the element set and usage guide.

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1 SCOPE AND INTRODUCTION

1.1 Purpose and scope

This document is intended to be an entry point for those wishing to implement the AGLS Metadata Standard for the online description of resources that are available either online or offline. As a usage guide it provides details on the use of AGLS metadata and how to assign metadata to resources in order to make them more widely 'discoverable' on the Internet. The guide explains in non-technical language how to use AGLS metadata elements to describe resources in order to make them more accessible. It includes examples of the use of each element in a number of different syntaxes. This guide also includes information about certain business issues that need to be resolved when a decision is made to implement AGLS metadata.

This Usage Guide is intended for use with Part 1 of the AGLS Metadata Element Set Standard, which explains the semantics of the AGLS elements and qualifiers. This guide should not be used without reference to that document. The most up-to-date version of this Usage Guide is available from the National Archives of Australia website at: http://www.naa.gov.au/agls.

1.2 What is metadata?

Metadata is just a new term for something that has been around for as long as humans have been writing. It is the Internet-age term for information that librarians traditionally have put into catalogues and archivists into archival control systems. The term 'meta' comes from a Greek word that denotes 'alongside, with, after, next'. More recent Latin and English usage would employ 'meta' to denote something transcendental, or beyond nature. Metadata, then, can be thought of as data about other data. Although there are many varied uses for metadata, the term is commonly used to refer to descriptive information about online (World Wide Web) resources, generally called 'resource discovery metadata'.

Resource discovery metadata is information in a structured format that describes a resource or a collection of resources. A metadata record, then, consists of a set of properties, or elements, which characterise resources and which are used to describe a resource. For example, a metadata system common in libraries – the library catalogue – contains a set of metadata records with elements that describe a book or other library item: author, title, date of creation or publication, subject coverage, and the call number specifying location of the item on the shelf.

The linkage between a metadata record and the resource(s) it describes may take one of two forms:

1. elements may be contained in a record separate from the item, as in the case of the library's catalogue record; or
2. the metadata may be embedded in the resource itself.

Examples of embedded metadata that is carried along with the resource itself include the Cataloguing In Publication (CIP) data printed on the verso of a book's title page; or the Text Encoding Initiative (TEI) header that can be found in many electronic texts. Many metadata standards in use today, including the Dublin Core standard, do not prescribe either type of linkage, leaving the decision to each particular implementation.

Although the concept of metadata predates the Internet and the Web, worldwide interest in metadata standards and practices has burgeoned with the increase in electronic publishing and the proliferation of individual and organisational websites, and the concomitant 'information overload' resulting from vast quantities of undifferentiated digital data available online. Anyone who has attempted to find information online using one of today's popular Web search services has probably experienced the frustration of retrieving hundreds, if not thousands, of 'hits' with limited ability to refine or make a more precise search. The wide-scale adoption of descriptive standards and practices for electronic resources will improve retrieval of relevant resources from the so-called 'Internet commons'. Weibel and Lagoze, two leaders in the field of metadata development, note that:

> The association of standardized descriptive metadata with networked objects has the potential for substantially improving resource discovery capabilities by enabling field-based (e.g., author, title) searches, permitting indexing of non-textual objects, and allowing access to the surrogate content that is distinct from access to the content of the resource itself.[1]

The most well-known resource discovery metadata is the Dublin Core metadata element set.

1.3 What is AGLS?

AGLS is a resource discovery metadata standard based on the Dublin Core (DC) metadata element set (DCMES). The Dublin Core metadata set is a simple set of elements for describing a wide range of networked resources. The Dublin Core standard comprises fifteen elements, the semantics (definitions) of which have been established through consensus by an international, cross-disciplinary group of professionals from librarianship, archives, computer science, text encoding, the museum community, and other related fields of scholarship.

Dublin Core has as its goals the following characteristics:

- simplicity of creation and maintenance;
- commonly understood semantics;
- international scope; and
- extensibility.

The DCMES has been issued as an American National Standard, NISO Z39.85. More information about Dublin Core metadata and the Dublin Core Metadata Initiative (DCMI) is available at http://au.dublincore.org/ (the Australian mirror of the official DCMI website).

The AGLS element set consists of 19 elements: the 15 Dublin Core elements, with four additional elements designed for the Australian context. AGLS differs from the Dublin Core standard in other important ways. First, AGLS can be used for describing both online (ie web pages or other networked resources) and offline resources (eg books, museum objects, paintings, paper files etc). Second, AGLS is intended to describe more than information resources. It was also designed to describe services and organisations. Third, AGLS differs from the Dublin Core

[1] Stuart Weibel and Carl Lagoze, 'An element set to support resource discovery', *International Journal on Digital Libraries*, 1, 1997, pp. 176–86).

standard in its use of qualifiers and the identification of mandatory elements of description (see section 4.2).

1.4 Why use AGLS metadata?

With so many resources available within an organisation, across the nation or across the world, metadata allows us to describe these resources in simple and small packages of information. Thus, compared to the resources themselves, metadata can be made available to more people, more easily. If a resource is worth making available then it is worth describing it with metadata to maximise the ability of clients to locate it online.

The aim of the AGLS Metadata Standard is to ensure that people searching the Australian information space on the World Wide Web have fast and efficient access to descriptions of many different resources. AGLS metadata should enable people to locate the resources they need without having to possess a detailed knowledge of where the resources are located or who is responsible for them.

Using standardised descriptions also enables web-based search engines to do their job more efficiently. This in turn helps ensure that people searching websites are presented with relevant and meaningful 'hits' in response to search requests.

Increasingly, the World Wide Web is becoming the preferred means of delivering information and services. There is little point investing money and effort in publishing information or delivering a service over the web if the intended audience cannot locate it. The use of standardised metadata schemas such as AGLS in conjunction with a suitable metadata enabled search engine, will help people find the resources they require amidst the immense and often anarchic information space of the World Wide Web. A small amount of additional investment in the creation and maintenance of AGLS metadata can significantly increase the return on the initial web publishing investment. With the magnitude of resources available on the Internet, metadata is a unique mechanism that provides a higher quality service for discovery of these resources. AGLS metadata will play an important role in publishing resources – via the Internet – to virtually anyone in the world.

1.5 Extending the AGLS Metadata Standard

AGLS is designed to be extendible so those with different or more specific metadata needs may add extra elements and qualifiers to AGLS to meet their own requirements. When a new metadata set based on AGLS, is being developed, it is important to remember that the new set must be compliant with AGLS to the extent that creating metadata for an extension metadata set also creates AGLS metadata. This aim can be guaranteed by applying the following principles:

- any existing AGLS elements used in a new metadata set must retain the same semantics as those defined in the AGLS Metadata Element Set;
- mandatory elements in AGLS must remain mandatory in the new set; and
- the semantics of any qualifiers added to existing AGLS elements in the new metadata set must be consistent with the semantics of the parent element.

In addition, the National Archives of Australia recommends the use of encoding schemes for any new elements or qualifiers whose content is to be drawn from a controlled list of values.

As AGLS Maintenance Agency, the National Archives is interested in other metadata sets that are based on AGLS, and their compatibility with AGLS. If an organisation has developed, or is about to develop, a new metadata standard based on AGLS, the National Archives would be very interested in receiving information about the new standard in order to monitor compatibility. Contact the National Archives at agls@naa.gov.au with details about the standard and the semantics of the elements.

1.6 Compatibility issues and the 'dumb-down rule'

An increasing number of metadata standards are in use or being developed, not only in Australia but also internationally. This proliferation of metadata standards raises questions about how compatible the different standards will be. This guide discusses how new metadata sets based on AGLS can remain compatible with the AGLS standard (see section 1.5). Because AGLS is based closely on the Dublin Core standard (DC), it is important for AGLS to remain compatible with DC by making changes to the AGLS Metadata Standard that reflect changes to the Dublin Core standard.

A guiding principle established by the Dublin Core Metadata Initiative (DCMI) to ensure compatibility is the so-called 'dumb-down' rule. Put simply, this rule states that an element value must be meaningful when no qualifiers are present. Thus, for example, a value for DC.Coverage.spatial must be meaningful when the element is in the simple form DC.Coverage. Similarly in AGLS, the value for the qualified element AGLS.Mandate.act must make sense when the element is in the form AGLS.Mandate. More detailed information about application of the 'dumb-down' rule can be found on the DCMI website at: http://au.dublincore.org/documents/usageguide/#dumbdown.

1.7 AGLS and other Australian metadata initiatives

AGLS is only one of a number of resource discovery metadata initiatives in Australia. Most of the other initiatives are based on either DC or AGLS. One exception is the Australia and New Zealand Land Information Council (ANZLIC) Metadata Standard which is used for describing spatial data sets. The ANZLIC standard is similar to other international geographic metadata standards and will conform to ISO 19115 when that standard is finalised. More information about the ANZLIC Metadata Standard can be found at: http://www.anzlic.org.au/asdi/metaelem.htm. Dr Simon Cox, a member of the AGLS Working Group, has prepared a mapping from the ANZLIC standard to the AGLS standard. This mapping is available on the National Archives website at: http://www.naa.gov.au/recordkeeping/gov_online/agls/mapping/anzlic.html.

There are other significant Australian resource discovery metadata standards based on AGLS or DC. Usually, metadata that conforms with one of these other metadata standards will also comply with the AGLS standard. More information can be obtained from the following URLs:

- Education Network Australia (EdNA), a metadata standard based on DC for describing education resources (http://standards.edna.edu.au/metadata/index.html)
- Environmental Resources Information Network (ERIN), another DC-based standard for describing Australian environmental resources (http://www.ea.gov.au/sdd/erin/)

- HealthInsite, a metadata standard based on AGLS, developed by the Commonwealth Department of Health and Aged Care for describing resources related to all aspects of health (http://www.healthinsite.gov.au/content/internal/page.cfm?ObjID=000764C8-FE42-1DEF-9E6983032BFA006D)

2 IMPLEMENTING AGLS

2.1 Which resources to describe with AGLS metadata

Organisations need to consider who their customers are or what market they are filling. This will help them decide which resources need to be described with AGLS metadata. The resources could be described individually or at a collection or aggregate level.

If an organisation chooses to create metadata for all the pages (items) on its website, or the great majority of them, it would then be possible to treat high-level entry pages as individual items, rather than as collection-level resources. This strategy would do away with the need for ongoing maintenance of the metadata in the high-level entry pages, since they would now be treated as individual resources, rather than as collections.

Resources can be documents on web servers, client services which may be provided online or offline, collections of videos, an organisation itself, or people. There is no real limit to what can be described using AGLS metadata. AGLS metadata helps people locate resources (services or information they require) either by linking to the resource (eg a web address) or by providing contact information (eg the street address, phone number or other locations) for a particular resource.

An organisation needs to decide which of its resources requires AGLS metadata. This can be a staged process. Not every resource needs to be described. For example, an organisation may decide initially to apply AGLS metadata to all of its documents on its web server, then progressively to other resources, first at the collection level (that is, describing a set of resources), then at an individual level. Ultimately, which resources you describe depends on the purpose of the resources.

A good rule to follow is: 'If it's worth publishing online, it's worth AGLS metadata'.

Embedding the AGLS metadata approach into a publishing quality process may also prove a useful management and authoring practice. If information is considered relevant and important to clients, it is likely to be subject to a publishing quality process. This manual complements and extends that process.

2.2 Creating AGLS metadata

Primarily, the creator or publisher of a resource will create the metadata that describes it. This process can be aided by software tools that automatically extract or create some of the metadata. Also, third parties may 'add value' to the AGLS metadata over time.

In some cases, an organisation may use the services of information management professionals or intermediaries to help apply AGLS metadata to resources.

2.3 Updating metadata

Not all AGLS metadata elements are mandatory. An organisation can add to or update its AGLS metadata at any time, so there is no need to capture all details at once. AGLS metadata is dynamic and flexible, so it can easily cater for changes and additions over time.

2.4 Advantages and disadvantages

With proper AGLS metadata, an organisation's customers will be able to find information and services offered by the organisation more easily. Effort must therefore be put into creating such metadata for your organisation's resources.

Adoption of this standard will provide long-term benefits for an organisation. There is a serious, but not overwhelming, commitment needed to support AGLS metadata. The initial effort may be high, but over time the benefits are worthwhile.

Business case analyses for adopting metadata have shown a number of significant benefits, including:

- providing clients with a seamless method for accessing resources;
- enabling clients to locate resources without needing a detailed knowledge of organisational structures;
- providing a consistent national approach to resource access;
- ensuring high-quality information and services are comprehensively available;
- providing organisations with consistent information management procedures; and
- providing a rich and competitive environment for dissemination of resources of all types.

2.5 Retrofitting AGLS metadata

It is most cost effective to create metadata as early as possible in the life of a resource – ideally when the resource is created or published.

An organisation needs to decide whether existing (legacy) resources need to be described with AGLS metadata. This is a business decision that requires careful consideration of the benefits over the costs.

2.6 How much to describe

An organisation needs to consider its customers' needs. At what level do they want to find your resources? Do they need individual documents or collections of documents? An analysis of your customers' demands and expectations is important in determining the level of detail you apply with AGLS metadata.

2.7 How to prioritise AGLS metadata

How important is it that your customers get access to your resources? How quickly do they need it? Answering these questions will determine how to prioritise creation and dissemination of your AGLS metadata.

2.8 Thesaurus terms

A thesaurus is a type of controlled vocabulary which has many benefits for information description and discovery. Use of a thesaurus is very important for applying consistent AGLS metadata. It is strongly recommended that, if a relevant thesaurus exists within an organisation, it be used for the appropriate elements; otherwise consider establishing a thesaurus that meets your community's needs, or using an existing thesaurus compiled by another organisation.

Using controlled language sets ensures consistent descriptive terminology and aids efficient and high-quality information retrieval. Correct application of thesaurus terms to describe resources will enable end-users to discover those resources. A properly constructed resource description thesaurus acts as a common language between the organisation and the community, especially when the thesaurus terms are integrated with the search facility via pick lists or by automatic redirection of non-preferred search terms.

There are both *subject* thesauruses and *function* thesauruses. A descriptor from a subject thesaurus captures the intellectual content of a resource, that is, what the resource is about. There are many subject thesauruses already available for organisation use. A function thesaurus captures the role of the resource, that is, to which business activity the resource relates. Organisations are encouraged to develop their own functional thesauruses based on an analysis of their business processes. These thesauruses will be useful for both recordkeeping classification and online resource description.

2.9 Administrative metadata

In some cases, organisations may also benefit from capturing information that indicates when the AGLS metadata was created or updated and who was responsible for doing so. This is usually called administrative metadata. Your organisation may have extra administrative metadata elements specific to your area of work or community needs. These metadata elements are not covered in this manual, but your organisation may decide to capture this information.

Although there is, as yet, no formal standard for administrative metadata the Admin Core metadata schema is likely to meet the needs of AGLS metadata for administrative metadata elements. If your organisation decides to capture/create administrative metadata it should consider using the Admin Core metadata set. The working paper, which describes the Admin Core metadata elements, can be found at: http://metadata.net/admin/draft-iannella-admin-01.txt. The Dublin Core Metadata Initiative (DCMI) is working on the development of the Admin Core metadata schema. More information is available from: http://au.dublincore.org/groups/admin/ (Australian mirror).

Other extensions to AGLS metadata are permissible and easily supported. If your organisation has a need for more specific metadata, then extending AGLS is the preferred mechanism (see section 1.5).

2.10 AGLS metadata deployment: checklist

Currently, the most cost-effective mechanism to deploy AGLS metadata is to use the embedded method, ie. embedding the metadata record in the <HEAD> section of the HTML code for the web resource. Alternative mechanisms can be used (see section 3.1). An organisation can use any of the tools listed in section 3.7 to generate the META tags associated with a resource. The META tags would then need to be inserted into the HTML document, and placed on the web server. With this in place, metadata enabled search engines will locate the AGLS metadata and enter it into a repository. If an organisation wishes its resource(s) to be discovered and accessible by specific community audiences (eg business, health, education), it is important that the metadata also conform to the metadata standards (which are based on AGLS) of these sector-specific groups.

Below is a checklist for embedding AGLS metadata, encoded in HTML META tags, into web documents.

STEP 1 – Select a metadata creation tool that best meets your needs. Familiarise yourself with this tool. (See the list in section 3.7.)

STEP 2 – Using the tool, enter the mandatory AGLS metadata elements about the resource. This will provide the minimum information required. (See the AGLS metadata summary in Appendix A.)

STEP 3 – Using the tools, enter the other (non-mandatory) AGLS metadata elements about the resource. The more information you provide, the better the description will be. (See the AGLS metadata summary in Appendix A.)

STEP 4 – Using the tool, export the AGLS metadata into the META tag format.

STEP 5 – Using your preferred editor or word processor, open the HTML document and insert the META tag text at the beginning of the document. This is usually right after the <HEAD> tag.

STEP 6 – Submit your HTML document to your web server following your normal procedure.

Should an organisation have a preference for a database repository or resource management system to store AGLS metadata, this can also be used. The database repository or resource management system would need to be configured to accept AGLS metadata elements and users would need tools to create and write the metadata to the database. For participation in a metadata-enabled search service, the repository or resource management system would need to provide public access to the AGLS metadata records. This could be through installation of gateways that communicate using common protocols, such as Z39.50, X.500 and HTTP.

3 AGLS METADATA TECHNICAL ISSUES

3.1 Technology options

There are a number of technology options for creating, storing and accessing AGLS metadata. These will evolve over time as new products and services become available and as new features are added. This section details some of the current options for creating and managing AGLS metadata. Be aware, however, that this area is rapidly changing as organisational metadata needs are articulated to the marketplace.

3.2 Creating and storing metadata

Ideally, metadata should be created using a purpose-built tool, so cataloguers need not be concerned with the syntax of the metadata. Metadata creation tools can be:

- part of a resource creation system, such as a word processor;
- part of a resource management system, such as an electronic record keeping system, a web-based registration system (eg BEP), or a web content management system; or
- stand-alone tools.

Metadata can be stored in two main ways:

- in a database separately from the resource, or
- embedded within the resource being described.

A database storing metadata can be implemented using many technologies. It may be a relational database management system or just a file system containing metadata records. Metadata storage choices will be determined, to a large extent, by specific business needs and resource types.

Some resources can contain their own metadata. For example, it is possible to embed metadata within web pages using the HyperText Markup Language (HTML) META tag. It is also possible to embed metadata in XML (eXtensible Markup Language) syntax. XML has been developed by the WWW Consortium (W3C) and is now an official W3C recommendation. It is possible in the future that Resource Description Framework (RDF) syntax will be the syntax of choice for expressing AGLS metadata. However, at the time of writing (February 2002), RDF has not finalised its preferred mechanism for expressing metadata and cannot yet be recommended as the syntax of choice for metadata in XML.

3.3 Collection-level description

In the case of a collection-level AGLS metadata record, it is essential to provide a full description of the set of resources in the collection, as this metadata record would be covering a number of valuable resources. To help searchers find items within collections which might be relevant to their enquiry, it is important to ensure the range qualifier of the Date element is updated to reflect changes in the collective dates of creation of the items contained in the collection; for example, when existing items are modified or new items added to the collection. This is especially necessary when describing collections of electronic resources that are not individually described by their own metadata. Organisations might choose to create collection-level AGLS records linked to high-level entry pages on their website. This would be

an appropriate strategy when a business decision has been taken not to create metadata for every item on the website. It is important that the collection-level AGLS records describe all the resources in the collection, not just the high-level entry page.

3.4 Describing services using AGLS metadata

Services offered to the public are resources, as are any other online or offline information sources. Services are, however, a much more active resource than documents containing information. For resource discovery purposes, therefore, resource description needs to be approached differently when a service is the resource being described.

The AGLS Working Group has developed a set of guidelines which explain in detail how to use the AGLS Metadata Standard for describing services. Although these guidelines were developed for government agencies, there is no reason that the principles set out in the document cannot be used as the basis for describing services offered by non-government organisations. The guidelines define a service in this way:

> a service exists where a relationship is established between a business function of a government agency and a person's identified needs. Examples of government services are providing family allowance assistance and delivering water supply.

The Services Guidelines are an adjunct to, rather than a part of, this Usage Guide and are available from http://www.naa.gov.au/recordkeeping/gov_online/agls/describing_services/services_intro.html.

3.5 Syntax

For data to be exchanged and understood by computers that are linked over a network, the data has to be written in a standard syntax. Currently, HTML is the most commonly used form of standardised syntax over the World Wide Web. Syntax can be seen as the mechanism for 'delivering' metadata records, and can be quite independent of the storage option chosen, although storage options can, to some extent, influence the syntax chosen for delivery. However, consideration should be given to supporting a common syntax for communicating and delivering metadata, independently of how it is stored and accessed. The W3C Resource Description Framework (RDF) is a developing standard for resource description and discovery using XML and offers the promise of reducing syntax problems. However, until the method of expressing metadata in RDF becomes settled, RDF cannot be recommended as the syntax of choice for XML metadata. Instead it is recommended that AGLS metadata be expressed in straight XML syntax, according to the XML schema for AGLS available from the National Archives of Australia. Nevertheless, AGLS metadata may be expressed in any syntax appropriate to an organisation's business needs. The most important consideration is to use a syntax that will support the harvesting of your metadata by suitable metadata-enabled Internet search engines.

AGLS is based on a qualified form of the Dublin Core Metadata Element Set (DCMES). The types of qualifiers used by AGLS, are each expressed differently, depending on the syntax chosen for writing the AGLS metadata. Sections 3.5.1 and 3.5.2 describe AGLS metadata written in HTML 4.0 syntax and XML, respectively.

Use of metadata tools for creating either HTML or XML encoded metadata is recommended.

3.5.1 HTML syntax

Compared to XML, HTML is syntactically limited. Nevertheless, suitable conventions regarding the content of attributes of <META> elements permit recording of most aspects of AGLS (qualified DC). The conventions for recording AGLS in HTML, described here, are based on a note for the Dublin Core Metadata Initiative, titled 'Recording qualified Dublin Core metadata in HTML meta elements', by Simon Cox, Eric Miller and Andy Powell. A full version of this can be found at: http://au.dublincore.org/documents/2000/08/15/dcq-html/. Each element has a prefix indicating which metadata schema the element is drawn from: 'DC' for Dublin Core, and 'AGLS' for Australian Government Locator Service.

3.5.1.1 Element refinements

Element refinements are not supported directly in HTML <META> elements, so a syntax convention relying on the use of characters within these text strings is used.

To accommodate element refinements, dots (.) are used to append qualifiers to DC element names, following much existing practice. If a hierarchical qualification scheme is being used, multiple qualifiers, separated by dots, may be appended.

3.5.1.2 Encoding schemes

HTML version 4 allows use of two additional attributes of the <META> elements, SCHEME and LANG[UAGE]. These both accommodate Value Qualifiers, ie the indication of use of an encoding scheme or controlled vocabulary for the metadata element value. Where a `SCHEME` or `LANG` is specified, the value must be encoded in the element `CONTENT` according to that scheme, including use of any punctuation characters.

Example: AGLS metadata record in HTML 4.0

```
<link rel = "schema.DC" href="http:/purl.org/DC/elements/1.1/">
<link rel = "schema.AGLS" href="http://www.agls.gov.au/agls/1.2">
<META NAME="DC.Identifier" SCHEME="URI"
CONTENT="http://www.naa.gov.au/recordkeeping/default.html">
<META NAME="DC.Creator" SCHEME=”AglsAgent” CONTENT="corporateName=National Archives of
Australia; address=Queen Victoria Terrace, Parkes, ACT; contact=+61 2 6212 3600">
<META NAME="DC.Publisher" SCHEME=”aglsAgent” CONTENT="corporateName=National Archives
of Australia">
<META NAME="DC.Rights" SCHEME="URI"
CONTENT="http://www.naa.gov.au/html/copyright.html">
<META NAME="DC.Title" CONTENT="Services to Government">
<META NAME="DC.Subject" SCHEME="APAIS" CONTENT="archives; information management;
public administration">
<META NAME="DC.Description" CONTENT="This page provides access to information about
records and recordkeeping in the Commonwealth, including references to standards,
guidelines and advice">
<META NAME="DC.Language" SCHEME="RFC3066" CONTENT="en">
<META NAME="DC.Coverage.jurisdiction" SCHEME=”AglsJuri” CONTENT="Commonwealth of
Australia">
<META NAME="AGLS.Function" SCHEME="AGIFT" CONTENT="recordkeeping standards">
<META NAME="AGLS.Function" SCHEME="NAA Functions Thesaurus" CONTENT="Recordkeeping
Standards – Advice">
<META NAME="DC.Date.modified" SCHEME="ISO8601" CONTENT="1998-08-27">
<META NAME="DC.Type.aggregationLevel" CONTENT="collection">
<META NAME="DC.Type.category" CONTENT="document">
<META NAME="DC.Type.documentType" SCHEME="agls-document" CONTENT="report">
<META NAME="DC.Format" SCHEME="IMT" CONTENT="text/html">
```

Note: The schema URL for AGLS used in the example below is not a real URL.

3.5.2 XML syntax

In the future RDF in XML may become the preferred syntax for expressing AGLS metadata. However, at the present time (February 2002) only straight XML is recommended for expressing AGLS metadata in XML. Because XML is a more sophisticated markup language than HTML it is possible to express quite complex metadata structures.

One of the means by which this is achieved is by using a facility in XML known as XML-namespace. Use of XML-namespace allows any number of different metadata schemas to be used together to achieve the structured expression of detailed and complex resource description metadata. In XML, however, case is significant, so ‘dc’ means something different to ‘DC’. The Dublin Core Data Model working group has recommended that Dublin Core be described using lower-case, ie ‘dc’ (note: this only affects the way metadata is written in XML, not in HTML). In addition, the names of DC (and hence AGLS) metadata elements are also in lower case.

The bipartite characterisation of qualifiers still applies in XML, since this is a semantic feature of AGLS, but qualified DC / AGLS metadata looks different when written in XML. One significant difference is that the dot (.) notation used for expressing element refinements is not used in XML. The other obvious feature of XML is the declaration of the schemas being used in XML-namespace (xmlns) at the top of the metadata record. The National Archives has produced a guide to

expressing AGLS metadata in XML which includes examples of encoding AGLS metadata records in XML. This guide is available from http://www.naa.gov.au/agls.

3.6 Metadata access standards

Metadata must be accessible in a standard way so search engines can easily find the resource descriptions and provide this information to the searcher. There are three main mechanisms for accessing metadata. Each has different advantages and disadvantages and will reflect the capabilities and maturity of the information systems that are used by an organisation or that harvest an organisation's metadata.

3.6.1 Embedded metadata

The first mechanism uses current technologies supported by the web and HTML. Metadata records are included within HTML files using the <META> tag. If the resource being described is itself an HTML file, the metadata becomes an integral part of the resource being described and is written to conform to the syntax of the HTML version being used. However, one drawback of this mechanism is that non-HTML resources must have HTML descriptions if they are to be described using metadata. This requires creation of 'front-end' HTML pages to contain metadata for such things as PDF, MS Word or GIF files and could have significant resource implications. Another liability is that, when parts of the metadata change, for instance following administrative change, some of the metadata embedded in each HTML file will need to be updated or changed.

XML and RDF encodings of AGLS metadata will allow more structure within embedded AGLS metadata records.

3.6.2 Metadata repositories

The second mechanism involves use of databases to store and manage metadata descriptions. Metadata databases with standard query interfaces are often called metadata repositories. Metadata databases are queried for metadata records using standard information retrieval protocols such as Z39.50 or X.500/LDAP.

This mechanism (ie storing metadata in a database) provides more flexibility, as there are no static records. The metadata can be made available in various arrangements or syntaxes that can easily be modified over time. An added advantage of storing AGLS metadata in a database is the ease with which global changes and amendments can be made after initial creation. On the other hand, setting up the metadata repository in the first place is more difficult than simply embedding metadata in HTML pages, and does have implications for retrieval of the metadata by search engines.

Initially, the metadata records from the databases should support their native syntaxes, but move towards standards such as Z39.50 and XML.

3.6.3 Resource management systems

The third mechanism involves exploiting an organisation's resource management system. These systems provide significant amounts of metadata describing resources (eg databases, documents and records) and services. The metadata managed by resource management systems is often sophisticated and may support recordkeeping activities, resource management and resource archiving as well as resource discovery. However, such metadata can often be translated to the standards required

by a resource discovery system. Examples of resource management systems include recordkeeping systems, document management systems, web management systems, records management systems and collection management systems.

Some resource management systems can provide automatic facilities to support:

- export of selected metadata records into either of the mechanisms above; and / or
- public access to selected records within the resource management system, via the Z39.50 or X.500 / LDAP protocols.

If an organisation has a resource management system, this mechanism does not require significant new investment and helps consolidate metadata management. The National Archives of Australia has published a recordkeeping metadata standard which designers and developers of recordkeeping systems can use to meet organisation recordkeeping metadata needs. The standard is an extension of the AGLS Metadata Standard so systems that create and capture metadata described by the recordkeeping metadata standard also create AGLS metadata that can be exported to a web environment as needed.

Some records in a resource management system should not be available to the public. Care must be taken to maintain access restrictions when exporting records or providing direct public access to a resource management system. The AGLS Rights element should be used in all cases where there are restrictions on access or use.

3.7 AGLS metadata tools

A number of tools or systems are available for creating and managing general metadata. Also, a number of systems will be developed that specifically support AGLS in free and commercial products.

A list of general metadata tools is available at:
http://www.dstc.edu.au/RDU/MetaWeb/toolpost.html.

Listed below are tools that have explicit support for creating and managing AGLS metadata.

3.7.1 Embedded AGLS Metadata

A number of software tools can help create AGLS metadata that can be embedded in HTML / XML documents, for example:

- MetaEdit – a trial version can be downloaded from:
  http://www.dstc.edu.au/Downloads/demo_download.html#hotmeta
- Klarity – a demonstration is available at: http://www.klarity.com.au/
- Metabrowser - an Internet Explorer based metadata editor. See
  http://www.metabrowser.spirit.net.au/

3.7.2 Metadata repositories

Most, if not all currently available database products can be configured to accept AGLS metadata elements.

3.7.3 Resource management systems

There are none that specifically support AGLS metadata yet, however, a number of currently available resource management systems do support metadata and can be configured to support AGLS metadata elements.

4 USING THE AGLS METADATA ELEMENTS

4.1 Characteristics of metadata elements

The AGLS Metadata Standard consists of 19 elements based on the Dublin Core element set described in section 1.3, plus a number of qualifiers which can be used with particular elements. In order for a metadata record to be compliant with the AGLS standard, at least five or six of the metadata elements must be present. The mandatory elements are:

- Creator
- Publisher (note: this element is not mandatory for descriptions of services)
- Title
- Date
- Subject OR Function
- Identifier OR Availability

Each AGLS element has a number of common characteristics, including:

- Each metadata element is repeatable.
- Each metadata element can contain any number of words or numbers and there is generally no fixed limit to the length of the element value. However, discretion should be used, as *too much* metadata will defeat the purpose of succinct descriptions.
- Each metadata element value can be in any (written) language. (This is not to be confused with the AGLS Language element, which defines the language in which the resource itself is expressed). For most Australian purposes the language of the AGLS Metadata Standard is English. See Appendix H for a complete list of language values.

4.2 Qualifiers

Although AGLS is based on the Dublin Core (DC) Metadata Standard, AGLS goes beyond the existing DC model in its use of qualifiers.

Qualifiers are additions and extensions to the metadata elements that give metadata creators the option to refine the semantics of the element set, and add precision to the values of the metadata elements. For example, it may be useful to indicate that the value has been selected from a particular controlled vocabulary, such as a list of keywords, or is encoded using a particular convention – the format for dates is an important case – or in a particular natural language.

There is no mandatory requirement to use qualifiers in AGLS metadata. AGLS metadata is perfectly valid without their use. However, use of qualifiers will allow for a greater understanding of the resources being described and it is recommended they be used wherever appropriate.

It may be desirable to restrict the semantics of the relationship between the resource and the element value, for example by specifying the exact type of refinement a contributor made to the resource. The element value may itself be usefully represented as a compound object, such as addresses where components like street,

locality and postcode can be clearly recorded separately. These refinements are achieved by use of various qualifiers.

AGLS uses two types of qualifiers in its implementation of DC:

- element refinements; and
- encoding schemes.

4.2.1 Element refinements

Element refinements refine the semantics of the element by further specifying the relationship of the element value to the resource itself. For example, the Relation element will have a 'relationship type' to indicate the nature of the relationship between resources (eg isBasedOn, hasFormat, references etc). Since element refinements are a significant extension to the semantics of an element, the AGLS standard will continue to specify the element refinements that can be used for each element. The element refinements which can be used in AGLS are listed in the description of each element.

Note that single word qualifier names are written all in lower case, but qualifier names consisting of more than one word have the initial letter of the second and subsequent words in upper case (eg act, but isBasedOn). This is the standard accepted by the DC community.

4.2.2 Encoding schemes

Encoding schemes indicate how the value is to be interpreted if it has been chosen from a controlled vocabulary (eg LCSH, MeSH, KAAA) or is encoded using some externally defined standard (eg RFC 3066, ISO 8601, URI).

In AGLS metadata written in HTML syntax, encoding schemes are indicated using the 'Scheme' and 'Lang' attributes. The scheme attribute indicates that the value of the metadata element has either been taken from an existing controlled vocabulary (thesaurus), or has been encoded using some externally defined standard. The encoding scheme adds value to the metadata element by providing brief details of the standard on which the metadata element is based. For example, ISBN is an encoding scheme for a number of AGLS elements. It indicates that the value of the element has been encoded as an International Standard Book Number (ISBN). Examples of schemes that can be used with AGLS metadata elements are listed in the element descriptions below. Note that these lists of schemes are not exhaustive, and organisations should use whatever schemes are appropriate to their functions and activities.

The 'Lang' attribute, which is considered to be an encoding scheme, is used to specify the language of the content of the metadata element, but it is not a crucial aspect of an element. AGLS reminds publishers that the content of the Lang attribute is defined by the HTML standard to be derived according to RFC 3066 (see Appendix H).

4.2.3 Scheme usage

As AGLS Maintenance Agency for the AGLS Metadata Standard, the National Archives is interested in schemes being used with the AGLS set. Organisations should contact the National Archives at agls@naa.gov.au with details about schemes they are using to deploy AGLS metadata for their resources. The National Archives also requires information on the various schemes being used in order to ensure that

the XML schemas for AGLS are up to date. Eventually, the National Archives hopes to maintain a list of different schemes and their application on the AGLS website.

4.3 AGLS metadata evolution

It is possible that new qualifiers might be necessary as the deployment of AGLS metadata increases and new services are created to provide advanced search services. The AGLS Standard and this Usage Guide will evolve over time to meet this need. As the AGLS Maintenance Agency ratifies new extensions, they will be reflected in newer versions of the AGLS Metadata Standard.

What is presented in this current guide is not the final version of AGLS metadata. Implementers of AGLS are encouraged to provide suggestions on additional extensions to AGLS metadata that meet their needs and the needs of their clients. See section 6.1 for contact information.

5 AGLS METADATA ELEMENTS AND EXAMPLES

5.1 Element names and descriptions

In the element descriptions in sections 5.2 to 5.20, a formal single-word label is specified to make the syntactic specification of elements simpler for encoding schemes. Although some environments, such as HTML, are not case-sensitive, it is recommended best practice always to adhere to the case conventions in the element names given below to avoid conflicts in the event that the metadata is subsequently converted to a case-sensitive environment, such as XML. Note that the XML examples below are for unqualified AGLS metadata only, and are not to be taken as normative.

The description of each element in the following pages uses the structure shown in Table 5.1.

Table 5.1 Metadata element description	
Name	The short version of the element name.
HTML element name	The HTML syntax label for the element
XML element name	The XML syntax label for the element
Obligation	The obligation status of the element

A number of possible encoding schemes for use with each element are listed in Appendix A.

5.2 Creator element and examples

Table 5.2 sets out the name and description for the Creator element.

Table 5.2 Creator	
Name	Creator
HTML element name	DC.Creator
XML element name	dc:creator
Definition	The entity primarily responsible for making the resource content
Obligation	Mandatory

5.2.1 Guidelines for content creation for Creator

This will usually be the name of the person or organisation responsible for creating the content of the resource.

When expressing personal names, the AGLS standard is to include the last name first followed by a comma, then the first name (eg Smith, Mary). In the case of organisations where there is a clear hierarchy for the creator, express the full hierarchy from largest to smallest. Values can also be structured according to the AglsAgent Scheme, described at Appendix B.

5.2.2 HTML examples for Creator

Unqualified

```
<META NAME="DC.Creator" CONTENT="Smith, Peter">
<META NAME="DC.Creator" CONTENT="The Flight Centre, Woden ACT">
```

Qualified

```
<META NAME="DC.Creator" SCHEME="GOLD" CONTENT="c=AU;o=Commonwealth of Australia;ou=Department of Communications, Information Technology and the Arts;ou=National Archives of Australia">
<META NAME="DC.Creator" SCHEME="AglsAgent" CONTENT="corporateName=BHP Corporate Library;contact=+61 3 9999 9999;address=5th floor, 1111 Smith Street, Flemington Victoria">
```

5.2.3 XML examples for Creator

Unqualified

```
<dc:creator>John Jones</dc:creator>
<dc:creator>Pete's Tyre Service</dc:creator>
```

5.3 Date elements and examples

Table 5.3 sets out the name and description for the Date element.

Table 5.3 Date	
Name	Date
HTML element name	DC.Date
XML element name	dc:date
Definition	A date associated with an event in the life of the resource
Obligation	Mandatory

5.3.1 Guidelines for content creation for Date

Dates should be generally formatted according to ISO 8601. This specifies dates in the form YYYYMMDD, and can accommodate times (eg 20010430T13:23:31 represents 30 April 2001, 1.23.31pm). Note that AGLS follows the World Wide Web Consortium (W3C) implementation described in that organisation's 'Date and Time Formats' (W3DTF) note at http://www.w3.org/TR/NOTE-datetime. This implementation uses small dashes '-' to separate the date components (eg 2001-04-30). See Appendix I.

Use the 'valid' element refinement with the DCMIPeriod encoding scheme for specifying currency dates of a service or information. The DCMIPeriod encoding scheme specifies the use of ISO8601 for dates, and includes components that indicate start and end dates for validity. The Availability element should be used for the dates of periodic or seasonal service availability. Note that it is possible to express date ranges according to ISO 8601 as in the example below.

5.3.2 Qualifiers for Date

The qualifiers for use with the Date element are:

- created: the creation date of the resource (not the metadata record);
- modified: the date the resource was last modified;
- valid: the date the resource becomes valid or ceases to be valid, or the date range for which the resource is valid; and
- issued: the date on which the resource was made formally available in its current form.

5.3.3 HTML examples for Date

Unqualified

```
<META NAME="DC.Date" CONTENT="17 March 2002">
```

Qualified

```
<META NAME="DC.Date.valid" SCHEME="DCMIPeriod" CONTENT="start=2001-05-01; end=2001-09-30">
<META NAME="DC.Date.valid" SCHEME="ISO8601" CONTENT="2001-05-01/2001-09-30">
<META NAME="DC.Date.modified" SCHEME="ISO8601" CONTENT="2001-05-01">
```

5.3.4 XML examples for Date

Unqualified

```
<dc:date>24 December 2001</dc:date>
<dc:date>2001-12-24</dc:date>
```

5.4 Description elements and examples

Table 5.4 sets out the name and description for the Description element.

Table 5.4 Description	
Name	Description
HTML element name	DC.Description
XML element name	dc:description
Definition	A textual description of the content and/or purpose of the resource
Obligation	Optional

5.4.1 Guidelines for content creation for Description

Description is used for a brief textual description of the content and/or purpose of the resource. The content of this element is useful for simple resource discovery, remembering that search engines often display text from the Description field. Text entered in the Description element should be succinct and clearly describe the contents or attributes of the resource/s to which the metadata applies.

It is particularly useful for describing non-textual resources such as services, images and video clips, sound files etc. The information for this element needs to be based on the subject and / or purpose of the resource itself.

It is important to remember that although there is no limit conceptually on how much text the *Description* tag can contain, most harvesters impose character limits on the length of the text.

5.4.2 Describing services

Use of this element is strongly recommended for services. It should provide a concise description of the content and / or purpose of the service, short enough to be read out on the telephone, client-focused, identifying the problem that people inquire about, rather than the solution.

5.4.3 HTML example for Description

Child Care Access Hotline:

```
<META NAME="DC.Description" CONTENT="This site provides information
for parents on the location of child care services and the range of
government financial assistance available, including the
Supplementary Services Program (SUPS) and the Special Needs Subsidy
Scheme (SNSS).">
[Note: this description is 205 characters.]
```

5.4.4 XML example for Description

```
<dc:description>Fibre Optic Cables, Ethernet Equipment, Connectors,
Networking Cabling KVM Switches and Media Converters by L-
com</dc:description>
```

5.5 Title element and example

Table 5.4 sets out the name and description for the Title element.

Table 5.5 Title	
Name	Title
HTML element name	DC.Title
XML element name	dc:title
Definition	A name given to the resource
Obligation	Mandatory

5.5.1 Guidelines for content creation for Title

It is often difficult to decide the correct title for a resource. Creation of ad hoc titles for resources is not recommended. General title rules are:

- use the content of the HTML <TITLE> tag (if provided) as long as it clearly describes the resource;
- use the wording of the title on the resource where this conveys the correct meaning for the resource; and
- do not use the file name of the resource.

AGLS recommends that authors of web pages ensure that HTML titles are meaningful since most search engines will use these in search results.

5.5.2 Qualifiers

The element refinement 'alternative', is the only qualifier for Title. It should be used where the resource is also known under a different title, or has recently changed and is still known by its previous title.

5.5.3 Describing services

Use the title that the Creator uses to identify the service to its clients. Use a naming convention that best identifies the service to clients. Title may identify an individual service or a group of services depending on the organisational structure for service delivery.

5.5.4 HTML examples for Title

Unqualified

```
<META NAME="DC.Title" CONTENT="Investigation into Research and
Development Funding in Australia">
```

Qualified

```
<META NAME="DC.Title.alternative" CONTENT="The Mortimer Report">
```

5.5.5 XML example for Title

Unqualified

```
<dc:title>ACCC acts against used car GST claims</dc:title>
```

5.6 Type element and examples

Table 5.6 sets out the name and description for the Type element.

Table 5.6 Type	
Name	Type
HTML element name	DC.Type
XML element name	dc:type
Definition	The category or genre, and aggregation level of the resource
Obligation	Optional

5.6.1 Guidelines for content creation for Type

The Type element is one of the more important elements to enable discovery of resources. It signals the aggregation level of a resource and specifies the resource type. At a high level resources can be of one of three types (ie the category): document, service, or agency (organisation). Specific document and service types can be described using the documentType and serviceType element refinements with the agls-document and agls-service controlled lists respectively. Appendixes E and F set out the scope of these refinements.

Using the aggregationLevel element refinement allows differentiation between collections of items and individual items. Search engines may use this to preference collections in result lists.

Because category=document and aggregationLevel=item are defaults for the *Type* element, when item-level resources are being described it is only necessary to use the documentType refinement (ie DC.Type.documentType in HTML) to specify the type of document.

5.6.2 Qualifiers

There are a number of element refinements for Type. When a service is being described DC.Type.category should be used with the value 'service'. It is recommended that the service type is further specified using the serviceType element refinement and the agls-service list of values at Appendix F. For collection-level documents DC.Type.aggregationLevel can be used with the value 'collection'.

The element refinements include the following:

- category: specifies the actual type of resource being described. There are only three values for this qualifier: service, document, agency (organisation).
- aggregationLevel: specifies the level of aggregation of the resource being described. There are only two values possible: item or collection.
- documentType: describes the form of the resource where category = document (document is used in its widest sense).
- serviceType: describes the type of service being offered where category = service.

The element refinements of 'category' and 'documentType' or 'serviceType' may be used to better describe resources when relevant.

5.6.3 Describing services

Repeat the Type element with the 'category' element refinement and the value 'document' if the resource you are describing has significant information content. The documentType qualifier values listed in Appendix E also may be used.

The actual business processes or transactions represented by the service (eg bookings and reservations, certificates) are described using the 'serviceType' element refinement.

5.6.4 HTML examples for Type

Unqualified

```
<META NAME="DC.Type" CONTENT="Annual report">
```

Qualified

```
<META NAME="DC.Type.category" CONTENT="service">
<META NAME="DC.Type.serviceType" SCHEME="agls-service"
CONTENT="benefits and entitlements">
```

5.6.5 XML examples for Type

Unqualified

```
<dc:type>dataset</dc:type>
<dc:type>complaints and appeals</dc:type>
```

5.7 Function element and examples

Table 5.7 sets out the name and description of the Function element.

Table 5.7 Function	
Name	Function
HTML element name	AGLS.Function
XML element name	agls:function
Definition	The business function to which the resource relates
Obligation	Conditional (ie mandatory if Subject not used)

5.7.1 Guidelines for content creation for Function

Use this element to describe the business function of the organisation to which the resource being described relates. Note that the Function element does not relate to the function of the resource itself.

Specific business units of an organisation will generally be responsible for particular functions. As such, there will be variation in the values within the *Function* element when describing business units and their resources. Government agencies may use the Australian Governments Interactive Functions Thesaurus (AGIFT) as a source of function terms.

5.7.2 Describing services

If an organisation-specific functional thesaurus exists, it should be used with the *Function* element. Organisation-specific functional thesauruses should be developed in accordance with the processes described in *AS ISO 15489*.

5.7.3 HTML examples for Function

Unqualified:

```
<META NAME="AGLS.Function" CONTENT="School Education">
```

Qualified

```
<META NAME=”AGLS.Function” SCHEME=”KAAA” CONTENT=”Occupational Health
and Safety”>
```

5.7.4 XML example for Function

Unqualified

```
<agls:function>collection management</agls:function>
```

5.8 Subject elements and examples

Table 5.8 sets out the name and description for the Subject element.

Table 5.8 Subject	
Name	Subject
HTML element name	DC.Subject
XML element name	dc:subject
Definition	The topic or content of the resource
Obligation	Conditional (ie mandatory if Function not used)

5.8.1 Guidelines for content creation for Subject

Use of a thesaurus or controlled vocabulary will ensure consistency in Subject entries across an organisation. In general, choose the most significant and unique subject terms, avoiding those too general to describe a particular resource. Provide adequate terms to allow resource discovery, but do not repeat variations of terms, synonyms, case or tense variations, or alternate spellings. Separate terms or phrases by a semicolon. If the subject of an item is an individual or an organisation, write the name in the manner described for personal names under the Creator element (5.2). In this case, do not put the name in the Creator element unless the person who is the subject of the resource is also the person who created the resource content..

The Australian Public Affairs Information Service (APAIS) is a general thesaurus of humanities and social science terms. It can be used if no other, more appropriate, thesaurus exists for the describing the subjects/topics dealt with by an organisation. The APAIS thesaurus is available online from the National Library of Australia at http://www.nla.gov.au/apais/thesaurus/.

All controlled vocabulary schemes and thesauruses used by organisations should be registered with the National Archives of Australia so the RDF and XML schemas for AGLS can be kept up to date.

5.8.2 HTML examples for Subject

Unqualified

```
<META NAME=”DC.Subject” CONTENT=”diabetes mellitus; prevention and
control; retinal diseases; vision impairments”>
```

Qualified

```
<META NAME="DC.Subject" SCHEME=”APAIS” CONTENT="Adoption; Child
development; Child health; Child psychology; Child sexual abuse;
Child welfare">
```

5.8.3 XML example for Subject

Unqualified

```
<dc:subject>inland waterways; irrigation; weirs</dc:subject>
```

5.9 Availability element and examples

Table 5.9 sets out the name and description of the Availability element.

Table 5.9 Availability	
Name	Availability
HTML element name	AGLS.Availability
XML element name	agls:availability
Definition	How the resource can be obtained or accessed, or contact information
Obligation	Conditional (ie mandatory for descriptions of offline resources)

5.9.1 Guidelines for content creation for Availability

The *Availability* element is primarily used for non-electronic resources to provide information on how consumers may obtain physical access to a resource. The content structure of the element can include the structure described in the AglsAvail encoding scheme, described at Appendix C, or a free-text description of how to obtain the resource. It is used for resources that are not available online. AGLS metadata records can be created for each service, such as a telephone service or a specific form or service that can only be completed by physically attending a shopfront or office location.

5.9.2 Describing services

Full details of how the service can be obtained or contact information can be provided using the structure described in the AglsAvail Scheme. It is important that metadata provided in this element supports both direct and mediated searching (eg call centre operator). Repeat the *Availability* element to show multiple access points. Fees or pricing may be included, but may be inappropriate if a complex schedule of pricing exists.

If a resource is available both as an online and offline service, the DC.Identifier element will be used to reference the online resource. The *Availability* element is used to identify how a client may access or obtain the relevant service offline.

5.9.3 HTML examples for Availability

Unqualified

```
<META NAME="AGLS.Availability" CONTENT="Medical assistance is
available by contacting the after hours hotline on 1800 123456">
```

Qualified

```
<META NAME=”AGLS.Availability” SCHEME=”AglsAvail”
CONTENT=”corporateName=Better Read Than Dead;address=121 King Street,
Newtown, NSW;hours=Mon-Sat 9.30am-9pm, Sun 10am-6pm; cost=$29.95”>
```

5.9.4 XML example for Availability

Unqualified

```
<agls:availability>This service can be accessed at the Bills and
Grants Office, 2nd floor, 111 Smith Street Smithville, VIC at a cost
of $15.00 per application</agls:availability>
```

5.10 Identifier element and examples

Table 5.10 sets out the name and description for the Identifier element.

Table 5.10 Identifier	
Name	Identifier
HTML element name	DC.Identifier
XML element name	dc:identifier
Definition	An unambiguous reference to the resource within a given context
Obligation	Mandatory

5.10.1 Guidelines for content creation for Identifier

Recommended best practice is to identify the resource by means of a string or number conforming to a formal identification system. Examples of formal identification systems include the Universal Resource Identifier (URI) which includes the Uniform Resource Locator (URL), the Digital Object Identifier (DOI), International Standard Book Number (ISBN) and International Standard Serial Number (ISSN). For online resources, use the URL of the resource.

It is important to note that the Identifier element will only work if the online resource being described has a stable URL or URI. Web systems that dynamically generate resources with a different URL or URI each time they are served cannot support the deployment of AGLS metadata and thus should not be used by organisations implementing AGLS.

For online resources like formal publications that bear an International Standard Book Number (ISBN) or International Standard Serial Number (ISSN), the element may be repeated to provide this information, if required.

5.10.2 HTML examples for Identifier

Unqualified

```
<META NAME="DC.Identifier"
CONTENT="http://www.naa.gov.au/recordkeeping/gov_online/agls/user_man
ual/intro.html">
```

Qualified

```
<META NAME="DC.Identifier" SCHEME="ISBN" CONTENT="0 642 42242 7">
```

5.10.3 XML example for Identifier

Unqualified

```
<dc:identifier>http://www.myorg.com.au</dc:identifier>
```

5.11 Publisher element and examples

Table 5.11 sets out the name and description for the Publisher element.

Table 5.11 Publisher	
Name	Publisher
HTML element name	DC.Publisher
XML element name	dc:publisher
Definition	The entity responsible for making the resource available
Obligation	Conditional (ie.mandatory except for service descriptions)

5.11.1 Guidelines for content creation for Publisher

This element is used for providing information about ownership of the resource. It will usually be the same as the Creator, where this is an organisation name, but may be the parent department of a sub-unit or separate office of a higher-level organisation, where these smaller units are listed as the Creator. Values can be structured according to the AglsAgent Scheme, described at Appendix B.

5.11.2 Describing services

For service descriptions, this element can be used to provide details of the organisation that controls or publishes the resource, or provides access to the service. Note that the Publisher element is optional for service descriptions.

5.11.3 HTML examples for Publisher

Unqualified

```
<META NAME="DC.Publisher" CONTENT="Blackburn's Boating Publisher">
```

Qualified

```
META NAME="DC.Publisher" SCHEME="AglsAgent"
CONTENT="corporateName=Rural Real Estate;address=16 Haybale Avenue,
Wheatfield, SA;hours=Mon-Fri 8am-6pm, Sat 8-12">
```

5.11.4 XML example for Publisher

Unqualified

```
<dc:publisher>Jones and Sons P/L</dc:publisher>
```

5.12 Audience element and examples

Table 5.12 sets out the name and description of the Audience element.

Table 5.12 Audience	
Name	Audience
HTML element name	AGLS.Audience
XML element name	agls:audience
Definition	The target audience of the resource
Obligation	Optional

5.12.1 Guidelines for content creation for Audience

Use of the Audience element supports direct targeting of specific community sectors such as families, youth, rural and seniors, at which the resource is targeted. Providing this level of granularity allows the extent of resources being returned from a search process to be restricted to the area of relevance, or a particular portal. It also allows increased specificity of resources for the user.

There are a number of schemes available that list preferred audience terms. The AglsAudience controlled list is at Appendix G. Note that when a numbered index such as ANZSIC or ASCO is used, it is recommended that a common use term also be used so a client can search on either the code or the term.

5.12.2 Describing services

Use for the potential target group and actual users of the service, which may be defined as socio-economic or demographic. This allows consumers to decide if the service is worth accessing or retrieving, based on a knowledge of the audience to whom the service is addressed. If a service is provided for a particular group, such as Youth, indicate this by using *Audience*='Youth' rather than using *Subject* terms.

5.12.3 HTML examples for Audience

Unqualified

```
<META NAME="AGLS.Audience> CONTENT="children">
```

Qualified

```
<META NAME="AGLS.Audience" SCHEME="EdNA" CONTENT="Upper primary">
```

5.12.4 XML example for Audience

Unqualified

```
<agls:audience>anglers</agls:audience>
```

5.13 Coverage element and examples

Table 5.13 sets out the name and description for the Coverage element.

Table 5.13 Coverage	
Name	Coverage
HTML element name	DC.Coverage
XML element name	dc:coverage
Definition	The extent or scope of the content of the resource
Obligation	Optional

5.13.1 Guidelines for content creation for Coverage

The Coverage element is used to describe the geographic or time related aspects of the content of a resource. It allows a search to be restricted to resources about a certain place or time. Dates used with the temporal qualifier should be coded according to ISO 8601, described at Appendix I. Jurisdiction names should be drawn from the AglsJuri controlled list of terms, described at Appendix D.

5.13.2 Qualifiers

Four element refinements may be applied to the Coverage element to provide greater clarity in the description of the resource. These are:

- jurisdiction: the territory over which a government exercises its authority;
- spatial: refers to locations or areas covered in the content of the resource;
- temporal: the time periods covered in the resource; and
- postcode: relevant to the geographical coverage of the resource.

Where programs and services are being delivered to a restricted geographical area, the full name of each region or postcode where these are being delivered can be included. If the programs or services are being delivered to specific areas, then the local government area names can also be used.

When describing:

- general material on the legislative and political affairs of a specific legally defined geographic area, use the jurisdiction qualifier;
- general geographic, economic, social or cultural affairs having a strong focus on place, to allow for a consistent retrieval within a specified geographic context, use the spatial qualifier;
- time-related characteristics of the resource, use the temporal qualifier.

5.13.3 Describing services

Use this element to describe the geographic area covered by the service. For information pages, this element may refer to locations or areas covered in the content of the resource. Coverage with the ‘spatial’ element refinement applies to the scope of the service (eg camping permit for Fraser Island, mining permit for Kakadu). If used, each such service (place) would need to be described separately.

Alternatively, if permits are generic across geographic areas, it is best to describe them once (in a single metadata record) and leave Coverage.spatial at the highest level, such as Queensland, or empty, possibly alluding to coverage in the description or title field (eg DC.Title="Camping permit for Queensland National Parks").

5.13.4 HTML examples for Coverage

Unqualified

```
<META NAME="DC.Coverage" CONTENT="Hunter River region">
```

Qualified

```
<META NAME="DC.Coverage.spatial" Content="Newcastle City">
<META NAME="DC.Coverage.temporal" SCHEME="ISO8601" Content="2001-01-31/2001-10-21">
<META NAME="DC.Coverage.postcode" CONTENT="2600-2910">
```

5.13.5 XML example for Coverage

Unqualified

```
<dc:coverage>Queanbeyan Shire</dc:coverage>
```

5.14 Language element and examples

Table 5.14 sets out the name and description of the Language element.

Table 5.14 Language	
Name	Language
HTML element name	DC.Language
XML element name	dc:language
Definition	The language of the intellectual content of the resource
Obligation	Optional

5.14.1 Guidelines for content creation for Language

Used to describe the language of the content of the resource. The default value is English ('en') or Australian English ('en-AU') so resources in any other language should be described using this element. Values should be constructed according to the World Wide Web language description standard, RFC 3066 (http://www.ietf.org/rfc/rfc3066.txt), which uses a combination of two ISO standards (ISO 639 for language codes and ISO 3166 for country codes). RFC 3066 allows the use of ISO639-2/T three-letter codes for languages that are not described with a two-letter code in ISO 639-1. A list of the two and three-letter codes is available from http://lcweb.loc.gov/standards/iso639-2/englangn.html. Language codes and country codes are listed in Appendix H.

5.14.2 Describing services

Can be used to describe all the languages in which a service is available.

5.14.3 HTML examples for Language

Unqualified

```
<META NAME="DC.Language" CONTENT="greek">
```

Qualified

```
<META NAME="DC.Language" SCHEME="RFC3066" CONTENT="fr-CA">
```

5.14.4 XML example for Language

Unqualified

```
<dc:language>korean</dc:language>
```

5.15 Contributor element and examples

Table 5.15 sets out the name and description for the Contributor element.

Table 5.15 Contributor	
Name	Contributor
HTML element name	DC.Contributor
XML element name	dc:contributor
Definition	An entity responsible for making important but secondary contributions to the content of the resource
Obligation	Optional

5.15.1 Guidelines for content creation for Contributor

Use for providing the name of a person or organisation with an important contributory role in the creation of the resource content. The value of the element may be structured using the AglsAgent Scheme, described at Appendix B.

5.15.2 HTML examples for Contributor

Unqualified

```
<META NAME="DC.Contributor" CONTENT="Web Design Team">
```

Qualified

```
<META NAME="DC.Contributor" SCHEME="AglsAgent"
CONTENT="corporateName=WebDesign;email=webdesign@hereweare.com.au">
```

5.15.3 XML example for Contributor

Unqualified

```
<dc:contributor>Jenny Doe</dc:contributor>
```

5.16 Format element and examples

Table 5.16 sets out the name and description of the Format element.

Table 5.16 Format	
Name	Format
HTML element name	DC.Format
XML element name	dc:format
Definition	The physical or digital manifestation of the resource
Obligation	Optional

5.16.1 Guidelines for content creation for Format

The Format element allows the description of the physical or virtual characteristics of the medium in which the resource is manifested. Values for electronic resources should be selected from the Internet Media Types (IMT) list of terms, see Appendix J. This element allows searchers to decide if the resource is worth accessing or retrieving based on their capacity to cope with the format. Physical (offline) resources can be described using 'physical' as the encoding scheme. Dimensions and weight can be given.

5.16.2 Qualifiers

Two qualifiers can be used within the Format element:

- extent: the size or duration of the resource; and
- medium: the material or physical carrier of the resource.

5.16.3 Describing services

The Format element describes the nature of a resource, or the communications channel (or channels) through which a service is delivered. For services that are not accessible online use 'Physical'. This could be further refined with the terms 'Call Centre' or 'Shopfront'.

5.16.4 HTML examples for Format

Unqualified

```
<META NAME="DC.Format" CONTENT="oil paint on canvas, 850mm x 500 mm">
```

Qualified

```
<META NAME="DC.Format" SCHEME="IMT" CONTENT="application/pdf">
<META NAME="DC.Format.extent" CONTENT="1.5 megabytes">

<META NAME="DC.Format.medium" CONTENT="CD ROM">
<META NAME="DC.Format.extent" CONTENT="650 megabytes; 72 minutes">

<META NAME="DC.Format" SCHEME="Physical" CONTENT="leather bound book,
200x150x25mm">
```

5.16.5 XML examples for Format

Unqualified

```
<dc:format>rolled map, 1200x1000mm flattened</dc:format>

<dd:format>excel spreadsheet</dc:format>
```

5.17 Mandate element and examples

Table 5.17 sets out the name and description of the Mandate element.

Table 5.17 Mandate	
Name	Mandate
HTML element name	AGLS.Mandate
XML element name	agls:mandate
Definition	A specific legal instrument which requires a resource to be created or made available
Obligation	Optional

5.17.1 Guidelines for content creation for Mandate

The Mandate element may be used to describe any legislative or other mandate that requires the creation or provision of the resource. The value of the element may be a reference to a specific mandate, but can also be a URI pointing to a specific legal instrument.

5.17.2 Qualifiers

Three qualifiers may be used with the Mandate element:

- act: a specific State or Federal Act which requires creation or provision of the resource;
- regulation: a specific regulation which requires creation or provision of the resource; and
- case: reference to a case which requires creation or provision of the resource.

5.17.3 HTML examples for Mandate

Unqualified

```
<META NAME="AGLS.Mandate" CONTENT="Family Law Act 1975 (Cth)">
```

Qualified

```
<META NAME="AGLS.Mandate.act" CONTENT="Archives Act 1983 (Cth)">
<META NAME="AGLS.Mandate.case" SCHEME="URI"
CONTENT="http://www.austlii.edu.au/au/cases/cth/irc/990003.html">
```

5.17.4 XML example for Mandate

Unqualified

```
<agls:mandate>R v Stevens [1999] NSWCCA 69 (15 April
1999)</agls:mandate>
```

5.18 Relation element and examples

Table 5.18 sets out the name and description of the Relation element.

Table 5.18 Relation	
Name	Relation
HTML element name	DC.Relation
XML element name	dc:relation
Definition	A reference to a related resource
Obligation	Optional

5.18.1 Guidelines for content creation for Relation

The Relation element identifies a relationship that exists between the resource being described and another resource, and also specifies the type of relationship between the two resources. This relationship is expressed as an element refinement (eg DC.Relation.hasVersion). Typically, the value for this element is a formal identifier (eg a URI).

5.18.2 Qualifiers

There are seven element refinement pairs which can be used with this element. Only one side of the pair is used as the element refinement. The pairs are:

- isPartOf / hasPart: one resource is a physical or logical part of another.
- isVersionOf / hasVersion: one resource is an historical state or edition of another resource by the same creator.
- isFormatOf / hasFormat: one resource has been derived from another by a reproduction or reformatting technique which is not fundamentally an interpretation but intended to be a representation.
- references / isReferencedBy: one resource cites, acknowledges, disputes or otherwise refers to another resource.
- isRequiredBy / requires: one resource requires another resource for its functioning, delivery, or content and cannot be used without the related resource being present.
- isReplacedBy / replaces: one resource supplants, displaces, or supersedes another resource.
- isBasedOn / isBasisFor: one resource is a performance, production, derivation, translation, adaptation or interpretation of another resource (added by AGLS).

5.18.3 Describing services

Use to link to another service that is related to the current service to support linking or integration of a number of services.

Possibly only of value where a relationship, which isn't obvious and wouldn't be identified by a search engine, exists between services or resources (eg 'marriage' and 'wills' to support linking for life event applications). Values for this element could be

built based on experience of counter or call centre staff. Search tools should pick up functionally related and subject-related services.

5.18.4 HTML examples for Relation

Unqualified

```
<META NAME="DC.Relation" CONTENT="Based on 'The Man from Snowy River' by A.B. Paterson">
```

Qualified

```
<META NAME="DC.Relation.isReplacedBy" SCHEME="URI" CONTENT="http://www.company.com.au/new_example.htm">
```

```
<META NAME="DC.Relation.references" CONTENT="Standards Australia, Records Management (AS 4390), Homebush, 1996">
```

```
<META NAME="DC.Relation.hasFormat" SCHEME="URI" CONTENT="http://www.ourcompany.com.au/version2.pdf">
```

```
<META NAME="DC.Relation.hasFormat" SCHEME="URI" CONTENT="http://www.ourcompany.com.au/version3.rtf">
```

5.18.5 XML example for Relation

Unqualified

```
<dc:relation>Draft version of Annual Report 2001</dc:relation>
```

5.19 Rights element and examples

Table 5.19 sets out the name and description of the Rights element.

Table 5.19 Rights	
Name	Rights
HTML element name	DC.Rights
XML element name	dc:rights
Definition	Information about rights held in and over the resource
Obligation	Optional

5.19.1 Guidelines for content creation for Rights

Typically used for copyright statements about information resources, and can be text, or a URL pointing to a copyright statement. May also be used to describe access terms and conditions applying to the resource being described.

5.19.2 HTML examples for Rights

Unqualified

```
<META NAME="DC.Rights> CONTENT="Copyright Fed Dagg 2001">
```

Qualified

```
<META NAME="DC.Rights" SCHEME="URI" CONTENT="http://www.naa.gov.au/copyright.html">
```

5.19.3 XML example for Rights

Unqualified

```
<dc:rights>Copyright Commonwealth of Australia 2002</dc:rights>
```

5.20 Source element and examples

Table 5.20 sets out the name and description for the Source element.

Table 5.20 Source	
Name	Source
HTML name	DC.Source
XML element name	dc:source
Definition	Information about a resource from which the current resource is derived
Obligation	Optional

5.20.1 Guidelines for content creation for Source

Used for providing a pointer to the original from which the resource being described was derived. Not generally needed unless its use increases the discoverability of the resource being described. For example, it could be useful when describing a scanned version of an original resource, such as a painting, so that a person searching for the original can discover the scanned version. Although the value of this element can be a text string, recommended best practice is to refer to the source by its formal identification (eg an ISBN number, a catalogue number, a URL etc).

5.20.2 Describing services

This element is inappropriate for descriptions of services.

5.20.3 HTML examples for Source

Unqualified

```
<META NAME="DC.Source" CONTENT="Salinger, J. D., Catcher in the Rye,
New York 1968">
```

Qualified

```
<META NAME="DC.Source" SCHEME="ISBN" CONTENT="0 9677 0000 0">
```

5.20.4 XML example for Source

Unqualified

```
<dc:source>Scanned image of photograph 98/10012</dc:source>
```

6 AGLS MAINTENANCE AGENCY

6.1 Role of the AGLS Maintenance Agency

Evolution of the AGLS Metadata Standard, including the addition and definition of qualifiers, is managed by the AGLS Maintenance Agency, under the auspices of the National Archives of Australia (NAA).

The AGLS Maintenance Agency will make recommendations on changes to the standard elements, in response to input from the community and outcomes of studies of AGLS Metadata usage. Anyone can make suggestions to the AGLS Maintenance Agency about changes to the AGLS Metadata Standard. If the suggestion has merit the National Archives will seek the views of the AGLS Working Group.

The role of the AGLS Maintenance Agency includes:

- convening regular meetings of the AGLS Working Group (to ensure communication and consultation with Australian government metadata practitioners);
- liaising with the international Dublin Core community; and
- maintaining the AGLS website and AGLS documentation (including schemas).

Contact the AGLS Maintenance Agency, to provide input or feedback, at:

AGLS Maintenance Agency
National Archives of Australia
Box 7425
Canberra Business Centre ACT 2610

Phone: +61 2 6212 3988

Fax: +61 2 6212 3989

Email: agls@naa.gov.au

Web: http://www.naa.gov.au/recordkeeping/gov_online/agls/summary.html

The most current version of this AGLS Usage Guide is available from the AGLS Maintenance Agency and online at: http://www.naa.gov.au/agls

APPENDIX A: AGLS METADATA SUMMARY
(Informative)

Table A1 AGLS metadata summary

AGLS elements	Element refinements	Encoding schemes (examples only)	Notes (see Appendix K for more information)
Creator (*) Publisher Contributor		X500 AglsAgent	Directory database protocol Developed for government implementations
Availability (* *if no Identifier*)		X500 AglsAvail	Developed for government implementations
Title (*)	alternative		
Subject (* *if no Function*)		LCSH MeSH AAT APAIS TAGS	Library of Congress Subject Headings Medical Subject Headings Getty Art and Architecture Thesaurus Australian Public Affairs Information Service thesaurus Thesaurus of Australian Government Subjects - developed for Commonwealth Government use
Date (*)	created modified valid issued	ISO 8601	International Standard for date encoding
Identifier (* *if no Availability*)		URI ISBN ISSN X500	Uniform Resource Identifier International Standard Book Number International Standard Serial Number
Rights		URI	
Description		URI	
Source		URI ISBN ISSN	

AGLS elements	**Element refinements**	**Encoding schemes (examples only)**	**Notes (see Appendix K for more information)**
Language		RFC3066	Internet Engineering Task Force Request for Comment for language and country encoding
Relation	isPartOf/hasPart isVersionOf / hasVersion isFormatOf / hasFormat references / isReferencedBy isBasedOn / isBasisFor isRequiredBy / requires isBasedOn / isBasisFor	URI ISBN ISSN	
Coverage	temporal spatial postcode jurisdiction	ISO 8601 TGN LCSH AglsJuri	 Getty Thesaurus of Geographical Names An encoding scheme for Australian jurisdictions – developed for government use
Function (* *if no Subject*)		AGIFT Keyword AAA	Australian Governments Interactive Functions Thesaurus – developed for government use A thesaurus of function terms common across government
Type	category aggregationLevel documentType serviceType	 agls-document agls-service	 A list of document types developed for government use but more widely applicable A list of service types developed for government use but more widely applicable

AGLS elements	**Element refinements**	**Encoding schemes (examples only)**	**Notes (see Appendix K for more information)**
Format	extent medium	IMT	Internet Media Types
		Physical	Indicates that the resource is a physical object
		AAT	Getty Art and Architecture Thesaurus - can be used to describe physical objects
Audience		ASCO	Australian Standard Classification of Occupations
		ANZSIC	Australian /New Zealand Standard Industrial Classifications
		EdNA	Education network Australia audience types
		agls-audience	Developed for government use but more widely applicable
Mandate	act regulation case	URI	
Note: elements marked (*) are mandatory.			

APPENDIX B: AGLS AGENT SCHEME
(Informative)

B1 Introduction

The AGLS Agent Scheme was developed by the National Archives of Australia as a method for describing characteristics of agents for use by government agencies in AGLS metadata descriptions. However, the Agent encoding scheme can easily be adapted for use by non-government organisations. Agents are people, organisations or instruments associated with resources.

There are a number of characteristics of an agent that can be described in metadata. These include, but are not limited to:

- an identifier for the agent, usually consisting of name and possibly including a jurisdiction; and
- contact information.

The AGLS Metadata Standard includes three elements for providing information about agents associated with a resource. These are Creator, Publisher and Contributor. Here we define AGLS Agent, a structuring scheme for providing information about agent characteristics in AGLS metadata records, and describe a method for encoding AGLS Agent as a profile of Dublin Core Structured Values (DCSV).

Other methods for describing characteristics of agents are available. The vCARD specification is a standard for automating the exchange of personal information typically found on a traditional business card. The specification for the vCard protocol (RFC 2426 of the Internet Engineering Task Force (IETF)) is at: http://www.imc.org/rfc2426. The X.500 protocol is a method for structuring directory databases, typically databases of names of individuals and/or organisations. The X.500 specification is available at: http://www.itu.int/itudoc/itu-t/rec/x/x500up/x500.html.

A companion document to this description of the AGLS Agent Scheme is the description of a scheme for structuring values for the AGLS Availability element. The components of the two schemes overlap to some extent ,but the semantic differences between the elements and the additional components available for use with the Availability element require separate schemes for the two sets of structuring components. The AGLS Availability Scheme is discussed in further detail in Appendix C.

B2. Characterising Agents – the AGLS Agent scheme

AGLS identifies an agent by describing the following characteristics:

Table B1 Agent descriptions

Component	Definition
personalName	The name of a person.
corporateName	The name of an organisation.
jurisdiction	The legal jurisdiction of the agent NB values for this component must be drawn from the AGLS Jurisdiction controlled list (Table D1)
contact	Contact details for the agent. Can include an official title. Typically includes a phone number.
address	Street or postal address for the agent.
email	Email address for the agent.
sector	Indicates whether the creator is from the government or non-government sector: 'government' and 'non-government' are the only allowable values. Note: The default value is 'government'.

All components are optional and ordering is not significant. All of the components except sector may be repeated. It is expected that typical agent descriptions making use of the AglsAgent Scheme will consist at least of 'personalName' or 'corporateName'.

B3 Encoding AGLS Agent

The components of an AGLS Agent description have no meaning when considered separately. In any particular instance of the scheme it is the complete set of components used which acts as the agent description. Thus, use of AGLS Agent to identify an agent requires that the components are linked together. This is conveniently accomplished by packaging the components into a single text-string. Various syntaxes for the text string are available, including Dublin Core Structured Values (DCSV) and eXtensible Markup Language (XML).

B3.1 DCSV encoding

Within AGLS metadata descriptions using the HTML syntax, characteristics of agents are encoded using the DCSV scheme (http://dublincore.org/documents/1999/04/30/labelled-values-syntax/). DCSV describes how to write a structured metadata value in a simple text string. It separates components using semicolons ';'. The name of a component and the value of a component are separated by an equals sign '='.

Writing AGLS Agent using DCSV notation is straightforward using the component names defined above. An AGLS Agent value appears as follows:

corporateName=v1; jurisdiction=v2; contact=v3; email=v4; address=v5

where v1–v5 are values defined in Table B1 above.

B3.2 XML encoding

AGLS Agent may be written in XML. Given the flexibility of XML many alternative notations are possible. One form looks like this:

```
<dc:Creator>
   <agent:corporateName>v1</agent:corporateName>
   <agent:jurisdiction>v2</agent:jurisdiction>
   <agent:address>v3</agent:address>
   <agent:emails>v4</agent:email>
   <aegnt:contact>v5</agent:contact>
</dc:Creator>
```

Note: The XML examples in this document are indicative only and should not be taken as normative. At the time of writing, syntaxes for expressing AGLS in XML and RDF/XML are under review. Recommendations on encoding AGLS metadata in XML and RDF will be made in the future.

B4 Examples

Note: the XML namespace URIs used in the XML examples below are fictitious.

B4.1 Agent who is a person

HTML

```
<meta name="DC.Creator" scheme=”AglsAgent”
content="personalName=Adrian Cunningham;
jurisdiction=Commonwealth of Australia; contact=Director
Recordkeeping Standards and Policy; contact=+61 02 6212 3988;
email=adrianc@naa.gov.au; address=Box 7425 Canberra Mail Centre,
ACT 2610">
```

XML

```
<agls:agls-record xmlns:dc="http://dublincore.org/elements/1.1/"
   xmlns:agls="http://www.agls.gov.au/agls/1.2"
   xmlns:AglsAgent="http://www.agls.gov.au/agent/1.0”>

 <dc:Creator>
  <AglsAgent:personalName>Adrian
   Cunningham</AglsAgent:personalName>
  <AglsAgent:jurisdiction>Commonwealth of Australia
   </AglsAgent:jurisdiction>
  <AglsAgent:contact>Director Recordkeeping Standards and
   Policy</AglsAgent:contact>
  <AglsAgent:contact>+61 02 6212 3988</AglsAgent:contact>
  <AglsAgent:email>adrianc@naa.gov.au</AglsAgent:email>
  <AglsAgent:address>Box 7425 Canberra Mail Centre, ACT
   2610</AglsAgent:address>
 </dc:Creator>
</agls:agls-record>
```

B4.2 Non-government Agent

HTML

```
<meta name="DC.Creator" scheme=”AglsAgent”
content="corporateName=Prince Alfred Old Collegians Cricket Club;
contact=Secretary, 08 8431 5483; sector=non-government">
```

XML

```
<agls:agls-record xmlns:dc="http://dublincore.org/elements/1.1/"
   xmlns:agls="http://www.agls.gov.au/agls/1.2"
   xmlns:AglsAgent="http://www.agls.gov.au/agent/1.0”>

 <dc:creator>
  <AglsAgent:corporateName>Prince Alfred Old Collegians Cricket
  Club</AglsAgent:corporateName>
  <AglsAgent:contact>Secretary, 08 8431 5483</AglsAgent:contact>
  <AglsAgent:sector>non-government</AglsAgent:sector>
 </dc:creator>
</agls:agls-record>
```

B4.3 Corporate Agent

HTML

```
<meta name="DC.Creator" scheme=”AglsAgent”
content="corporateName=National Native Title Tribunal;
jurisdiction=Commonwealth of Australia; address=GPO Box 9973,
Perth WA 6848 ; address=Principal Registry, Commonwealth Law
Courts, Level 4, 1 Victoria Ave, Perth WA 6000; contact=(08) 9268
7272">
```

XML

```
<agls:agls-record xmlns:dc="http://dublincore.org/elements/1.1/"
   xmlns:agls="http://www.agls.gov.au/agls/1.2"
   xmlns:AglsAgent="http://www.agls.gov.au/agent/1.0”>

 <dc:creator>
  <AglsAgent:corporateName>National Native Title
  Tribunal</AglsAgent:corporateName>
  <AglsAgent:jurisdiction>Commonwealth of
  Australia</AglsAgent:jurisdiction>
  <AglsAgent:address>GPO Box 9973, Perth WA
  6848</AglsAgent:address>
  <AglsAgent:address>Principal Registry, Commonwealth Law Courts,
  Level 4, 1 Victoria Ave, Perth WA 6000</AglsAgent:address>
  <AglsAgent:contact>(08) 9268 7272</AglsAgent:contact>
 </dc:creator>
</agls:agls-record>
```

APPENDIX C: AGLS AVAILABILITY SCHEME

C1 Introduction

The AGLS Metadata Standard allows the description of both online and offline resources. Online resources are accessed through a URL in the AGLS Identifier element. Information about how to obtain offline resources is provided by the AGLS Availability element. The AGLS Availability Scheme was developed by the National Archives of Australia as a method for describing accessibility characteristics of the person or organisation making offline resources available, for use by government agencies in AGLS metadata descriptions. However, the Accessibility encoding scheme can easily be adapted for use by non-government organisations.

There are a number of characteristics of resource accessibility that can be described in metadata. These include, but are not limited to:

- an identifier for the agent, usually consisting of name and possibly including a jurisdiction;
- contact information;
- cost; and
- geographic location of service accessibility.

Here we define AGLS Availability, a structuring scheme for providing information about accessibility characteristics of offline resources, and describe a method for encoding AGLS Availability as a profile of DCSV.

Typically, values for the AGLS Availability element will contain information about the agent making the resource available. Other methods for describing characteristics of agents are possible. The vCARD specification is a standard for automating the exchange of personal information typically found on a traditional business card. The specification for the vCard protocol (RFC 2426 of the Internet Engineering Task Force (IETF)) is at: http://www.imc.org/rfc2426. The X.500 protocol is a method for structuring directory databases, typically databases of names of individuals and/or organisations. The X.500 specification is available at: http://www.itu.int/itudoc/itu-t/rec/x/x500up/x500.html.

A companion document to this description of the AGLS Availability Scheme is the description of a scheme for structuring values for the AGLS 'agent' elements. The components of the two schemes overlap to some extent, but the semantic differences between the elements and the additional components available for use with the Availability element require separate schemes for the two sets of structuring components.

C2 Characterising resource accessibility – the AGLS Availability scheme

AGLS describes resource accessibility using the characteristics defined in Table C1.

Table C1 Resource accessibility

Component	Definition
personalName	The name of a person making the resource available.
corporateName	The name of an organisation making the resource available.
jurisdiction	The legal jurisdiction of the agent making the resource available Note: values for this component must be drawn from the AGLS Jurisdiction controlled list (see Table D1).
contact	Contact details for the agent making the resource available. Can include an official title, typically includes a phone number.
address	Street or postal address for the agent making the resource available.
email	Email address for the agent making the resource available .
hours	Hours during which the resource can be accessed at the locations identified in address components.
cost	Cost of obtaining the resource.
postcode	Australian postcode(s) where the resource is available. Typically used in describing availability of services.

All of these components are optional and ordering is not significant. All of the components may be repeated.

C3 Encoding AGLS Availability

The components of an AGLS Availability description have no meaning when considered separately. In any particular instance of the scheme it is the complete set of components used which acts as the description of how a resource is made available. Thus, use of AGLS Availability to identify the availability of a resource requires that the components are linked together. This is conveniently accomplished by packaging the components into a single text-string. Various syntaxes for the text string are available, including Dublin Core Structured Values (DCSV) and eXtensible Markup Language (XML).

C3.1 DCSV encoding

Within AGLS metadata descriptions using HTML syntax, characteristics of resource accessibility are encoded using the DCSV scheme (http://dublincore.org/documents/1999/04/30/labelled-values-syntax). DCSV describes how to write a structured metadata value in a simple text string. It separates components using semicolons ';'. The name of a component and the value of a component are separated by an equals sign '='.

Writing AGLS Availability using DCSV notation is straightforward using the component names defined above. For example:

```
corporateName=v1; jurisdiction=v2; address=v3; address=v4;
contact=v5; contact=v6
```

where v1-v6 are values defined in Table C1.

C3.2 XML encoding

AGLS Agent may be written in XML. Given the flexibility of XML, many alternative notations are possible. One form looks like this:

```
<agls:Availability>
   <AGLSavail:corporateName>v1</AGLSavail:corporateName>
   <AGLSavail:jurisdiction>v2</AGLSavail:jurisdiction>
   <AGLSavail:address>v3</AGLSavail:address>
   <AGLSavail:contact>v4</AGLSavail:contact>
   <AGLSavail:hours>v5</AGLSavail:hours>
   <AGLSavail:cost>v6</AGLSavail:cost>
</agls:Availability>
```

Note: The XML examples in this document are indicative only and should not be taken as normative. At the time of writing syntaxes for expressing AGLS in XML and RDF/XML are under review. Recommendations on encoding AGLS metadata in XML and RDF will be made in the future.

C4 Examples

The XML namespace URIs used in the XML examples below are fictitious.

C4.1 Off-line service

The World War I dossier request service from the National Archives of Australia.

HTML

```
<meta name="AGLS.Availability" scheme=”AglsAvail”
content="corporateName=National Archives of Australia;
address=Box 7425 Canberra Mail Centre ACT 2610; contact=WW1
Personnel Records Service, 02 6212 3439; email=ww1prs@naa.gov.au;
cost=$AU15.00">
```

XML

```
<agls:agls-record
  xmlns:agls="http://www.agls.gov.au/agls/1.2"
  xmlns:AglsAvail="http://www.agls.gov.au/availability/1.0”>

 <agls:Availability>
  <AglsAvail:corporateName>National Archives of
   Australia</AglsAvail:corporateName>
  <AglsAvail:address>Box 7425, Canberra Mail Centre ACT
   2610</AglsAvail:address>
  <AglsAvail:contact>WW1 Personnel Records Service, 02 6212
   3439</AglsAvail:contact>
  <AglsAvail:email>ww1prs@naa.gov.au </AglsAvail:email>
  <AglsAvail:cost>$A15.00</AglsAvail:cost>
 </agls:Availability>
</agls:agls-record>
```

C4.2 Service with availability hours

HTML

```
<meta name="AGLS.Availability" scheme=”AglsAvail”
content="corporateName=Registry of Births, Deaths and Marriages;
jurisdiction=Queensland; address=501 Ann Street, Brisbane;
address=PO Box 188, Brisbane Albert Street, Qld, 4002;
contact=Phone (07) 3247 9203; contact=Fax (07) 3247 5803;
hours=Monday to Friday, 9:00am – 4:30pm (excluding public
holidays)">
```

XML

```
<agls:agls-record
  xmlns:agls="http://www.agls.gov.au/agls/1.2"
  xmlns:AglsAvail="http://www.agls.gov.au/availability/1.0”>

 <agls:Availability>
  <AglsAvail:corporateName>Registry of Births, Deaths and
   Marriages</AglsAvail:corporateName>
  <AglsAvail:jurisdiction>Queensland</AglsAvail:jurisdiction>
  <AglsAvail:address>501 Ann Street, Brisbane</AglsAvail:address>
  <AglsAvail:address>PO Box 188, Brisbane Albert Street, Qld,
   4002</AglsAvail:address>
  <AglsAvail:contact>Phone (07) 3247 9203</AglsAvail:contact>
  <AglsAvail:contact>Fax (07) 3247 5803</AglsAvail:contact>
  <AglsAvail:hours>Monday to Friday, 9:00am – 4:30pm (excluding
   public holidays)</AglsAvail:hours>
 </agls:Availability>
</agls:agls-record>
```

APPENDIX D: AGLS JURISDICTION SCHEME

D1 Introduction

The AGLS Jurisdiction Scheme is a controlled vocabulary for names of administrative jurisdictions in Australia, developed by the National Archives of Australia for use by government agencies in AGLS metadata descriptions. However, it can be used by non-government organisations as a source for jurisdiction names when appropriate.

The AGLS Metadata Standard includes a number of elements which can provide information about Jurisdictions which are associated with a resource in some way. These are Creator, Publisher, Contributor, Coverage and Availability. Table D1 defines AGLS Jurisdiction, a controlled list of terms for providing Jurisdiction values in AGLS metadata records.

D2 Australian jurisdictions – the AGLS Jurisdiction scheme

Table D1 Australian jurisdictions

Jurisdiction & abbreviation		**Definition**
[Commonwealth of] Australia	AU	*Commonwealth of Australia Constitution Act 1900* (UK)
Australian Antarctic Territory	AAT	The Australian Antarctic Territory plus the subantarctic territories of Heard and McDonald Islands
Australian Capital Territory (ACT)	ACT	*Seat of Government Surrender Act 1909* (NSW) *Seat of Government Surrender Act 1915* (NSW)
Indian Ocean Territories	IOT	Cocos (Keeling) Islands and Christmas Island
New South Wales	NSW	*Constitution Act 1902* (NSW)
Northern Territory	NT	*Northern Territory Acceptance Act 1910* (Cth)
Queensland	QLD	Letters Patent erecting the Colony of Queensland 1859 (UK) Letters Patent altering the western boundary of Queensland 1862 (UK) *Queensland Coast Islands Act 1879* (Qld)
South Australia	SA	*South Australian Act (Foundation Act) 1834* (UK) Letters Patent establishing the Province of South Australia 19 February 1836 (UK)
Tasmania	TAS	Order-In-Council Separating Van Diemen's Land From New South Wales 1825 (UK)
Victoria	VIC	General Instructions to the Superintendent of Port Phillip, 1839
Western Australia	WA	Letters Patent re Constitution 25 August 1890 (UK)
Other		Any other jurisdiction not named here

Note: Geographical boundaries of the Australian jurisdictions are contained in the various Acts, Letters Patents, Orders, and Commissions listed above

D3 Encoding AGLS Jurisdiction

Encoding AGLS jurisdiction values is straightforward. Various syntaxes are available, including Hypertext Markup Language (HTML) and eXtensible Markup Language (XML). The XML examples in this document are indicative only and should not be taken as normative. At the time of writing syntaxes for expressing AGLS in XML and RDF/XML are under review. Recommendations on encoding AGLS metadata in XML and RDF will be made in the future.

D4 Examples

Note: the XML namespace URIs used in the XML example below are fictitious.

HTML

```
<meta name="DC.Coverage.jurisdiction" scheme=”AglsJuri”
          content="Western Australia">

<meta name="DC.Coverage.jurisdiction" scheme=”AglsJuri”
          content="Australia">

<meta name="DC.Creator"
          scheme="aAglsAgent"
          content=”corporateName=National Archives of Australia;
          jurisdiction=Commonwealth of Australia”>
```

Note: there is no mechanism in HTML for indicating that some values within an encoding scheme come, themselves, from another scheme.

XML

```
<agls:agls-record xmlns:dc="http://dublincore.org/elements/1.1/"
   xmlns:agls="http://www.agls.gov.au/agls/1.2"
   xmlns:AglsAgent="http://www.agls.gov.au/agent/1.0”
   xmlns:AglsJuri="http://www.agls.gov.au/jurisdiction/1.0”>

<dc:creator>
  <AglsAgent:corporateName>National Archives of
   Australia</AglsAgent:corporateName>
  <AglsAgent:jurisdiction>AglsJuri:Commonwealth of Australia
   </AglsAgent:jurisdiction>
 </dc:creator>
</agls:agls-record>
```

APPENDIX E: AGLS DOCUMENT TYPE SCHEME
(Informative)

E1 Introduction

The AGLS Document Type Scheme was developed by the National Archives of Australia as a method for describing document types for use by government agencies in AGLS metadata descriptions. However, the document type controlled vocabulary can easily be adapted for use by non-government organisations.

The AGLS Metadata Standard includes an element which can provide information about document types when a resource is a document. This is the Type element. Here we define AGLS Document, a controlled list of terms for providing document type values in AGLS metadata records.

E2 Document types – the AGLS Document Scheme

AGLS identifies a document from the following list of document types in Table E1.

Table E1 Document types

Document type	Scope
agenda	A list of issues or activities as a schedule or program for an event, conference, forum or meeting.
checklist	Any listing of items or entries provided for reference purposes, including an inventory, register, directory or index. Use 'dataset' for bibliographic data or catalogues.
contract	An agreement between two or more parties for the delivery of a product, provision of a service, or management of a resource.
dataset	Structured information encoded in lists, tables, databases etc, which will normally be in a format available for direct machine processing. (For example: spreadsheets, databases, GIS data, MIDI data.) Data may be numeric, spatial, spectral, statistical or structured text (including bibliographic data and database reports).
form	A structured solicitation of input from a user. (For example: comments, a survey, or an order.) For forms used to provide a service (for example: enquiries, registrations, or orders and purchases) use category=service and select an appropriate value from the list of service types instead.
government gazette	Regular formal publication produced by government that may include vacancies, appointments, bulletins, notices and legislative directives.
guidelines	The primary purpose of the resource is to present factual information, advice or guidance about an organisation, event or service. Most general advisory pages on government websites will be of this document type. Use 'instructional' for resources that provide directions rather than information.

homepage	The introductory page or major entry point for a site on the Internet. In most cases an organisation will have only one resource of this document type, except where there is likely to be a public perception that a distinct business unit stands alone as an organisational entity.
image	The content is primarily a still visual representation other than text. Includes electronic and physical representations such as images, photographs, diagrams, maps and graphics. For digital representations of physical resources, use a more specific document type where possible. (For example: a scanned media release – use 'media release'.)
instructional	Resources in which the primary purpose is to provide instructions or directions. (For example: how to write a report; how to register for a service.) Includes manuals, tutorials and quizzes. Use 'guidelines' for resources which have primarily informational content.
media release	Resources specifically designed to provide a brief public statement on an issue or event, via the mass media.
meeting minutes	A summary or record of proceedings of a meeting.
minute	A form of correspondence acting as an official note or memorandum, usually recording an action or decision.
physical object	Objects or substances. (For example: a person, a computer, the great pyramid, a sculpture, wheat.) Used only when the resource being described is the actual physical object. Digital representations of, or surrogates for, these things should use 'image', 'video' and/or one of the other types.
policy statement	A major formal publication detailing a course or line of action adopted and pursued by the organisation. Includes public accountability documents such as corporate directions and other strategic plans. Use 'report' for resources that convey the results of an inquiry, account for activities or document speeches and presentations.
promotional	Descriptive or marketing information about an organisation or material that promotes its products, services, activities or collections. (For example: 'What's New' pages, brochures.) Includes announcements.
report	The resource provides an account of organisational activity or a speech or presentation. Includes statements of the organisation's opinion, a decision or the results of an inquiry. Use 'dataset' for database reports.
software	Computer programs in source or compiled form which may be available for installation on another machine. For software that exists only to create an interactive environment use category=service and choose the service type 'communications forum' instead.
sound	The content is a primarily audio representation, which may be ambient, effects, music, narration or speech. For some audio resources it may be appropriate to use a combination of document types. (For example: sound recording of a presentation – specify document types as 'report;sound'.)

video	A form of visual representation other than text, involving moving images. Includes moving pictures, animation or film. For some video resources it may be appropriate to use a combination of document types. (For example: video recording of an exhibition opening – specify document types as 'promotional;video'.)

E3 Encoding AGLS Document

Encoding AGLS document type values is straightforward. Various syntaxes are available, including Hypertext Markup Language (HTML) and eXtensible Markup Language (XML). The XML examples in this document are indicative only and should not be taken as normative. At the time of writing syntaxes for expressing AGLS in XML and RDF/XML are under review. Recommendations on encoding AGLS metadata in XML and RDF will be made in the future.

E4 Examples

Note: the XML namespace URIs used in the XML example below are fictitious.

HTML

```
<meta name="DC.Type" scheme=”agls-document” content="image">

<meta name="DC.Type.documentType" scheme=”agls-document”
content="media release">
```

XML

```
<agls:agls-record xmlns:dc="http://dublincore.org/elements/1.1/"
    xmlns:agls=”http://www.agls.gov.au/agls/1.2”
    xmlns:aglsq="http://www.agls.gov.au/aglsq/1.0"
    xmlns:agls-document=”http://www.agls.gov.au/document/1.0”>

<dc:type>
 <aglsq:documentType>
  <agls-document>presentation</agls-document>
 </aglsq:documentType>
</dc:type>

</agls:agls-record>
```

APPENDIX F: AGLS SERVICE TYPE SCHEME

F1 Introduction

The AGLS Service Type Scheme was developed by the National Archives of Australia as a method for describing service types for use by government agencies in AGLS metadata descriptions. However, the service type controlled vocabulary can easily be adapted for use by non-government organisations.

The AGLS Metadata Standard includes an element which can be used to provide information about the type of service for a resource which is a service, either offline or online. This is the Type element. Table F1 defines AGLS Service, a controlled list of terms for providing service type values in AGLS metadata records.

F2 Service Types – the AGLS Service Scheme

AGLS identifies a resource which is a service from the following list of service types in Table F1.

Table F1 Service types

Service type	Scope
applications	The resource allows clients to make formal written requests of a general nature, which cannot be more specifically described by another term from the agls-service list. For some types of applications (for example: 'grants') a more specific service type may be listed.
benefits and entitlements	The resource allows clients to apply for payments, allowances or concessions to which he/she has a right, usually as a result of personal circumstance (for example: unemployment, age, family benefits). See also 'claims' and 'grants'. For other aspects of benefits and entitlements, use another service type from the list where available. (For example: 'complaints and appeals', 'enquiries', 'financial'.)
bills, rates and levies	The resource allows clients to pay accounts, taxes or other charges. See also 'orders and purchases' and 'infringements and fines'. For other aspects of bills, rates and levies, use another service type from the list where available. (For example: 'complaints and appeals', 'enquiries', 'refunds'.)
bonds	The resource allows clients to pay sums of money, to be held in trust and paid in default of an agreement, contract or obligation. For other aspects of bonds, use another service type from the list where available. (For example: 'complaints and appeals', 'enquiries', 'refunds'.)
bookings and reservations	The resource allows clients to make (or cancel) engagements or secure places or objects in advance, for use at a later date. See also 'enrolments'.

business advisory	The resource allows clients to make formal requests for professional advice on business matters, such as enquiries on the setting up of a small business.
certificates	The resource allows clients to request formal written statements of fact, endorsement or accreditation. (For example: educational qualification, statement of attainment, birth certificate, certificate of registration.) See also 'licences and permits' and 'registrations'.
claims	The resource allows clients to make assertions or demands for the recognition of a right or due, usually in response to an event or activity (for example: title, insurance, taxation, compensation claims). See also 'benefits and entitlements', 'complaints and appeals' and 'refunds'.
communications forum	The resource is a setting designed exclusively for interactive involvement with one or more users. (For example: chat services, listservs, virtual reality, multimedia learning objects.)
complaints and appeals	The resource allows clients to submit formal expressions of discontent, grievance or alleged offences. Includes requests for review of a decision or settlement. See also 'claims' and 'lodgements'.
data exchange	The resource allows clients to undertake electronic reporting, transfer or sharing of information.
enquiries	The resource allows clients to submit questions and requests for advice and information. For some types of enquiries (for example: 'business advisory') a more specific service type may be listed.
enrolments	The resource allows clients to register in a scheme or program, for a conference or course of study etc.
financial	The resource allows clients to undertake transactions relating to money or commercial matters. For some types of financial services (for example: 'bills, rates and levies') a more specific service type may be listed.
grants	The resource allows clients to apply for sums of money or other resources bestowed upon approved individuals or institutions. Includes scholarships, endowments, awards and similar types of funding. For other aspects of grants, use another service type from the list where available. (For example: 'complaints and appeals', 'enquiries'.)

infringements and fines	The resource allows clients to pay charges and other penalties imposed for breaches or violations of obligations, laws and other codes. For other aspects of infringements and fines, use another service type from the list where available. (For example: 'complaints and appeals', 'enquiries', 'refunds'.)
legal advisory	The resource allows clients to make formal requests for professional advice or legal opinions.
licences and permits	The resource allows clients to apply for written orders or formal consent to do, or exemption from, an activity. (For example: driving a car, owning a dog, tax exemption.) Includes authorisations and approvals. For other aspects of licences and permits, use another service type from the list where available. (For example: 'complaints and appeals', 'enquiries', 'renewals'.) See also 'certificates' and 'registrations'.
lodgements	The resource allows clients to make formal statements or submissions to a court, tribunal, commission, inquiry or similar body. See also 'complaints and appeals'.
orders and purchases	The resource allows clients to make requests and / or payments for the delivery of goods or services. See also 'subscriptions'.
refunds	The resource allows clients to request reimbursements or compensation for non-supply of goods or services, or for supply of faulty goods or services. See also 'claims' and 'complaints and appeals'.
registrations	The resource allows clients to have recorded, acts, occurrences or items (for example: motor vehicles, letters posted, marriages, businesses). For registrations of participants in a scheme, program, conference or course, use 'enrolments'. For registrations by a board (or similar) authorising an activity, use 'licences and permits'. For formal statements that prove registration, use 'certificates'.
renewals	The resource allows clients to request that provision of an item or benefit be recommenced, or made effective for an additional period.
subscription	The resource allows clients to request the provision of a service for a designated period of time, often in return for payment of a fee. (For example: membership of a group, shares, periodicals.) See also 'renewals'.

technical	The resource allows clients to access specialised services of a scientific, industrial or mechanical nature, for which a more specific service type is not listed.
tenders	The resource allows providers to submit formal offers to supply goods or services with a stated price and terms. Includes bids, offers, proposals and estimates.
testing	Services that examine, investigate, analyse or check the performance or capabilities of an individual, object or system using a standardised evaluation procedure.
training	Services that provide instruction or practice, designed to impart proficiency or improve efficiency. For other aspects of training, use another service type from the list where available. (For example: 'certificates', 'enquiries', 'enrolments'.)
transactions	Any online service and/or assistance that functions as an intermediary between the user and online data or information, for which a more specific service type is not listed.

F3 Encoding AGLS Service

Encoding AGLS service type values is straightforward. Various syntaxes are available, including Hypertext Markup Language (HTML) and eXtensible Markup Language (XML). The XML examples in this document are indicative only and should not be taken as normative. At the time of writing syntaxes for expressing AGLS in XML and RDF/XML are under review. Recommendations on encoding AGLS metadata in XML and RDF will be made in the future.

F4 Examples

Note: the XML namespace URIs used in the XML example below are fictitious.

HTML

```
<meta name="DC.Type" scheme=”agls-service”
          content="claims">

<meta name="DC.Type.serviceType" scheme=”agls-service”
          content="enrolments">
```

XML

```
<agls:agls-record xmlns:dc="http://dublincore.org/elements/1.1/"
    xmlns:agls=”http://www.agls.gov.au/agls/1.2”
    xmlns:aglsq="http://www.agls.gov.au/aglsq/1.0"
    xmlns:agls-service=”http://www.agls.gov.au/service/1.0”>

<dc:type>
```

```
 <aglsq:serviceType>
  <agls-service>orders and purchases</agls-service>
 </aglsq:serviceType>
</dc:type>

</agls:agls-record>
```

APPENDIX G: AGLS AUDIENCE SCHEME

G1 Introduction

The AGLS Audience Scheme was developed by the National Archives of Australia as a method for describing audience types for use by government agencies in AGLS metadata descriptions. However, the audience controlled vocabulary can easily be adapted for use by non-government organisations.

The AGLS Metadata Standard includes an element which can provide information about the target audience for whom a resource intended. This is the Audience element. Table G1 defines AGLS Audience, a controlled list of terms for providing Audience values in AGLS metadata records.

G2 Audience Categories – the AGLS Audience Scheme

AGLS identifies an Audience from the list of audience categories in Table G1.

Table G1 Audience categories

Audience categories	**Scope**
Aboriginal and Torres Strait Islanders	People who identify themselves as part of the Indigenous Australian community.
all	Default value; general public; the whole population.
business	Persons or corporations engaged in commerce, trade or industry.
carers	Persons or organisations engaged in the care of others (eg patients, children, elderly, disabled). Use 'parents' for resources aimed at mothers, fathers or legal guardians.
children	Persons under the age of 16 years. Use 'youth' for resources aimed at persons aged 16–25 years.
community groups	Groups who provide services to, or represent the views of, specific community sectors.
employees	Persons working for another person or business for wages. Use 'jobseekers' for resources designed to assist people seeking employment.
employers	Persons or businesses who employ others for wages.
gay and lesbian	Persons who identify themselves as part of homosexual community.
government	Agencies and organisations associated with public administration at local, state or federal level.
jobseekers	Persons seeking employment, whether currently employed or unemployed. Use 'employees' for resources of relevance to people already in employment.
low income earners	As determined by the Australian Taxation Office, persons whose annual income is less than $14,927 (current at 2002-01-01).
men	Adult male persons

migrants	Persons moving permanently from one country to another, either from Australia overseas, or from other countries to Australia. Includes resources for people from non-English-speaking backgrounds or who have English as a second language.
parents	Persons fulfilling a mother, father or guardian role in the care of children, whether by birth, adoption or other legal arrangement.
people with disabilities	Persons with a physical or mental incapacity, either permanent or temporary.
primary industry	Persons or organisations involved in the growing, producing or extracting of natural resources (for example: farming, forestry, mining). Use 'rural' for resources aimed at people and communities outside urban areas.
rural	Persons living or working in regional, country or isolated areas of Australia. Use 'primary industry' for resources on commercial activities that may occur in rural areas.
seniors	Persons over the age of 65 years.
students	Persons engaged in a course of study or instruction whether at pre-primary, primary, secondary, vocational or tertiary level.
teachers	Members of the teaching profession, persons instructing students at pre-primary, primary, secondary, vocational or tertiary level.
tourists	Persons visiting an area for pleasure, either from other countries or other parts of Australia. Use 'migrants' for persons relocating permanently.
women	Adult female persons.
youth	Persons aged 16–25 years. Use 'children' for resources aimed at persons under the age of 16 years.

G3 Encoding AGLS Audience

Encoding AGLS audience values is straightforward. Various syntaxes are available, including Hypertext Markup Language (HTML) and eXtensible Markup Language (XML). The XML examples in this document are indicative only and should not be taken as normative. At the time of writing syntaxes for expressing AGLS in XML and RDF/XML are under review. Recommendations on encoding AGLS metadata in XML and RDF will be made in the future.

G4 Examples

Note: the XML namespace URIs used in the XML example below are fictitious.

HTML

```
<meta name="AGLS.Audience" scheme=”agls-audience”
content="youth">
```

XML

```
<agls:agls-record
    xmlns:agls=”http://www.agls.gov.au/agls/1.2”
    xmlns:agls-audience=”http://www.agls.gov.au/audience/1.0”>

<agls:audience>
 <agls-audience>jobseekers</agls-audience>
</agls:audience>

</agls:agls-record>
```

APPENDIX H: AGLS METADATA LANGUAGE ELEMENT VALUES

Language codes in the AGLS Language element are based on the Internet Engineering Task Force document 'Tags for the Identification of Languages', at: http://www.ietf.org/rfc/rfc3066.txt A list of language tags is provided in Table H1.

For AGLS, the language value is a two-letter Language Code (from ISO 639), followed optionally, by a two-letter Country Code (from ISO 3166). For example 'en' is English and 'en-gb' is English with a United Kingdom influence. Common language and country codes appear below. RFC 3066 specifies that for languages which do not have a two-letter code in ISO 639, a three letter code is used.

Table H1 Language values

Language Codes		Country Codes	
ab Abkhazian	ml Malayalam	af Afghanistan	kr Korea
af Afrikaans	mn Mongolian	al Albania	kw Kuwait
ar Arabic	mo Moldavian	dz Algeria	lb Lebanon
az Azerbaijani	ms Malay	ar Argentina	mk Macedonia
bg Bulgarian	mt Maltese	au Australia	my Malaysia
bo Tibetan	my Burmese	at Austria	mx Mexico
ca Catalan	ne Nepali	az Azerbaijan	ma Morocco
co Corsican	nl Dutch	bd Bangladesh	np Nepal
cs Czech	no Norwegian	be Belgium	nl Netherlands
cy Welsh	pa Punjabi	ba Bosnia-Herzeg.	nc New Caledonia
da Danish	pl Polish	br Brazil	nz New Zealand
de German	pt Portuguese	bg Bulgaria	ng Nigeria
el Greek	ro Romanian	kh Cambodia	no Norway
en English	ru Russian	cm Cameroon	pk Pakistan
es Spanish	sa Sanskrit	ca Canada	pg Papua N. Guinea
et Estonian	sh Serbo-Croatian	cl Chile	py Paraguay
fa Persian	sk Slovak	cn China	pe Peru
fi Finnish	sl Slovenian	cx Christmas Island	ph Philippines
fj Fiji	sm Samoan	cc Cocos Islands	pl Poland
fr French	so Somali	co Colombia	pt Portugal
ga Irish	sq Albanian	ck Cook Islands	ro Romania
gd Scots Gaelic	sr Serbian	hr Croatia	ru Russian Federation
he Hebrew	su Sundanese	cu Cuba	sa Saudi Arabia
hi Hindi	sv Swedish	cz Czech Republic	sg Singapore
hr Croatian	sw Swahili	dk Denmark	si Slovenia
hu Hungarian	ta Tamil	tp East Timor	za South Africa
hy Armenian	th Thai	eg Egypt	es Spain
id Indonesian	to Tonga	sv El Salvador	lk Sri Lanka
it Italian	tr Turkish	ee Estonia	se Sweden
iu Inuktitut (Eskimo)	ug Uigur	fj Fiji	ch Switzerland
ja Japanese	uk Ukrainian	fi Finland	tw Taiwan
jw Javanese	ur Urdu	fr France	th Thailand
ka Georgian	vi Vietnamese	de Germany	tn Tunisia
km Cambodian	yi Yiddish	gh Ghana	tr Turkey
ko Korean	za Zhuang	gr Greece	ua Ukraine
ks Kashmiri	zh Chinese	hk Hong Kong	ae Un. Arab Emirates
ku Kurdish	zu Zulu	hu Hungary	gb United Kingdom
lt Lithuanian		in India	us United States
lv Latvian, Lettish		id Indonesia	uy Uruguay
mi Maori		ir Iran	uz Uzbekistan
mk Macedonian		iq Iraq	vu Vanuatu
		ie Ireland	ve Venezuela
		il Israel	vn Viet Nam
		it Italy	yu Yugoslavia
		jp Japan	zw Zimbabwe

A full list of Language Codes is available at ftp://dkuug.dk/i18n/ISO_639
A full list of Country Codes is available at ftp://dkuug.dk/i18n/ISO_3166

APPENDIX I: AGLS METADATA DATE ELEMENT ENCODING

This appendix has been extracted from the proposed revision to the standard by ISOTC 154 (copy available at: http://www.mcs.vuw.ac.nz/technical/software/SGML/doc/iso8601/iso8601.html) and from 'Date and Time Formats' by Misha Wolf and Charles Wicksteed, Reuters, 15 September 1997, which is a W3C Note and is available at: http://www.w3.org/TR/NOTE-datetime-970915.html

ISO 8601 is the International Standard for the representation of dates and times. ISO 8601 describes a large number of date / time formats. To reduce the scope for error and the complexity of software, it is useful to restrict the supported formats to a small number. This profile defines some date / time formats which are likely to satisfy most requirements.

The formats are as follows. Exactly the components shown here must be present, with exactly this punctuation. Note that the 'T' appears literally in the string, to indicate the beginning of the Time element, as specified in ISO 8601.

Year:
YYYY (eg 1997)

Year and month:
YYYY-MM (eg 1997-07)

Complete date:
YYYY-MM-DD (eg 1997-07-16)

Complete date plus hours and minutes:
YYYY-MM-DDThh:mmTZD (eg 1997-07-16T19:20+01:00)

Complete date plus hours, minutes and seconds:
YYYY-MM-DDThh:mm:ssTZD (eg 1997-07-16T19:20:30+01:00)

Complete date plus hours, minutes, seconds and a decimal fraction of a second:
YYYY-MM-DDThh:mm:ss.sTZD (eg 1997-07-16T19:20:30.45+01:00)

Periods of Time when start and end dates are known:
YYYY-MM-DD / YYYY-MM-DD (eg1997-07-16 / 1997-8-17)

Periods of Time when the start or end date are not known:
YYYY-MM-DD / - **OR** - / YYYY-MM-DD (eg 1997-07-16 / - **OR** - / 1997-8-17)

Hours and minutes may be expressed in periods of time, using the conventions described above, where:

YYYY = four-digit year
MM = two-digit month (01=January, etc)
DD = two-digit day of month (01 through 31)
hh = two digits of hour (00 through 23) (am / pm NOT allowed)
mm = two digits of minute (00 through 59)
ss = two digits of second (00 through 59)
s = one or more digits representing a decimal fraction of a second
TZD = time zone designator (Z or +hh:mm or -hh:mm)

APPENDIX J: AGLS METADATA FORMAT ELEMENT VALUES

The more commonly used values from the Internet Media Types (IMT) are listed here. These values can be used with the Format element. The full listing is available from: http://www.iana.org/assignments/media-types/media-types

Table J1 IMT values

IMT	Description
text/plain	Unformatted text
text/html	Web pages (HTML)
text/sgml	SGML document
text/xml	XML document
multipart/mixed	Mixed format resources, which are encoded according to Internet MIME standard
message/rfc822	Electronic mail (Internet format)
application/postscript	Postscript document
application/rtf	Rich Text Format document
application/wordperfect5.1	WordPerfect V5.1 document
application/pdf	Portable Data Format document
application/msword	Microsoft Word document
application/EDIFACT	Electronic Data Interchange For Administration, Commerce and Transport resource
image/jpeg	JPEG encoded image
image/gif	GIF encoded image
image/png	PNG encoded image
video/mpeg	MPEG encoded video
video/quicktime	Quicktime encoded video
model/vrml	VRML encoded resource

FURTHER REFERENCES AND GLOSSARY

AAT – Getty Art & Architecture Thesaurus. More information at: http://www.getty.edu/research/tools/vocabulary/aat/

AGIFT – Australian Governments Interactive Functions thesaurus. A list of the preferred terms is available from: http://www.naa.gov.au/recordkeeping/gov_online/agift/extract.html

ANZSIC – Australian and New Zealand Standard Industrial Classification. More information is available from the Australian Bureau of Statistics (ABS) website.

APAIS – Australian Public Affairs Information Service thesaurus. More information is available at http://www.nla.gov.au/apais/thesaurus/

ASCO – Australian Standard Classification of Occupations. More information is available from the Australian Bureau of Statistics (ABS) website

DCMES - Dublin Core Metadata Element Set. See Dublin Core.

DCMI - Dublin Core Metadata Initiative. See Dublin Core.

DCSV - Dublin Core Structured Values. A syntax for writing a list of labelled values in a text string. See: http://dublincore.org/documents/2000/07/28/dcmi-dcsv/

DOI - Digital Object Identifier: a system for identifying and exchanging intellectual property in the digital environment. See: http://www.doi.org/

Dublin Core (DC) – An internationally recognised core set of metadata elements on which AGLS is based. More information at: http://au.dublincore.org/ (Australian mirror)

EdNA – Education Network Australia: a network of education information and services. The EdNA metadata standard is based on the Dublin Core set. More information is available at: http://www.edna.edu.au/EdNA/

GOLD – The Government Online Directory of Australian Commonwealth government agencies and employees. More information at: http://gold.directory.gov.au/

HTML – HyperText Markup Language. More information at: http://www.w3.org/MarkUp/

HTML META Tag – An approach to encoding metadata in HTML documents. More information at: http://purl.oclc.org/docs/metadata/dublin_core/approach.html

IMT – Internet Media Types – See Appendix J.

ISBN – International Standard Book Number.

ISO – International Standards Organisation. More information at: http://www.iso.ch

ISO 8601 – Date and Time Formats – See Appendix I.

ISO 19115 - International Standard: Geographic Information – Metadata.

ISSN - International Standard Serial Number.

KAAA – Keyword AAA, a thesaurus of general administrative terms, developed for government use. For Commonwealth agencies, copies of the thesaurus and the use

licence are available from the National Archives of Australia. More information is available from: http://www.naa.gov.au/recordkeeping/control/keyaaa/summary.htm

LCSH – Library of Congress Subject Headings.

LDAP – Lightweight Directory Access Protocol for accessing X.500 databases

MeSH – Medical Subject Headings, a thesaurus of medical subject terms, developed by the US National Library of Medicine. More information is available at: http://www.nlm.nih.gov/mesh/meshhome.html

RDF – The Resource Description Framework for metadata syntax and interoperability. More information at: http://www.w3.org/RDF/

RFC3066 – Tags for the Identification of Languages – See Appendix H. More information is available at: http://www.ietf.org/rfc/rfc3066.txt

TGN – Getty Thesaurus of Geographic Names. More information is at: http://www.getty.edu/research/tools/vocabulary/tgn/

URI – Uniform Resource Identifier – used as addresses for web documents, includes Uniform Resource Locator (URL) and Uniform Resource Name (URN). More information is available at: http://www.w3.org/Addressing/

URL – Uniform Resource Locator – a generalised way of locating online resources. More information is available at: http://www.w3.org/Addressing/

XML – Extensible Markup Language. More information is at: http://www.w3.org/XML/

X.500 – An ISO standard for distributed directories of objects.

Z39.50 – An ISO standard (ISO23950) for common access to repositories for metadata eg online library catalogues. More information is at: http://lcweb.loc.gov/z3950/agency/