



AIATSIS

AUSTRALIAN INSTITUTE OF ABORIGINAL  
AND TORRES STRAIT ISLANDER STUDIES

# Indigenous knowledge systems and linked data

Jodie Dowd and Jenny Wood  
AIATSIS Collections 2017



# The Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS)



Books, pamphlets, serials



Rare books



Manuscripts



Photographs



Audio recordings



Moving images

# Indigenous knowledge

- *“Indigenous knowledge is the local knowledge that is unique to a culture or society. This knowledge is passed from generation to generation, usually by word of mouth and cultural rituals”*

The United Nations Educational Scientific and Cultural Organisation (UNESCO)

# Indigenous knowledge systems are different to western systems

- “the recognition of traditional knowledge rights will require coordinated systems that allow knowledge holders, intellectual property owners, creators and users to find a balance between sharing knowledge and cultural rights management.”

Lawyer and leader in discussions of Indigenous Cultural Intellectual Property, Murri and Torres Strait Islander woman Terri Janke

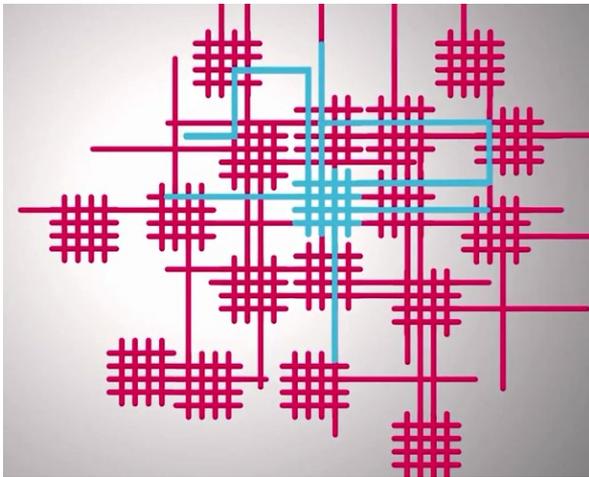
# How does AIATSIS follow protocols?

- The Guidelines for Ethical Research in Australian Indigenous Studies <http://aiatsis.gov.au/research/ethical-research/guidelines-ethical-research-australian-indigenous-studies>
- The Aboriginal and Torres Strait Islander Library, Information and Resource Network (ATSILIRN) Protocols <http://atsilirn.aiatsis.gov.au/protocols.php>
- The AIATSIS Access and Use Policy <http://aiatsis.gov.au/sites/default/files/docs/about-us/collections-access-use-policy.pdf>
- Pathways, the AIATSIS thesauri <http://www1.aiatsis.gov.au/>

# What is Linked data?

- *“The term **Linked Data** refers to a set of best practices for publishing and connecting structured data on the Web”*

<http://www.w3.org/TR/ld-bp/>

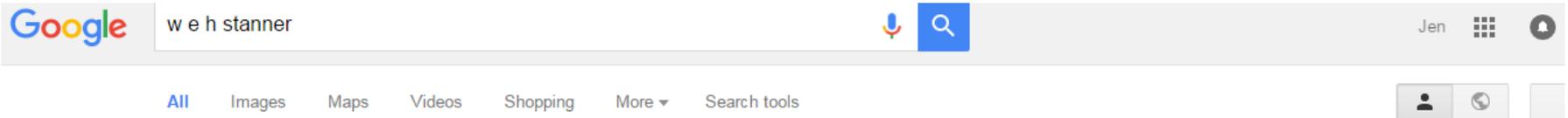


<https://vimeo.com/36752317>

# Web standards

- Semantic web
- Resource Description Framework (RDF)
  - Expression of relationships (in triplets)
    - **Sally Morgan** *wrote* [My place](#)

# How does the web show these relationships?



About 24,400 results (0.47 seconds)

## William Edward Hanley Stanner - Wikipedia, the free ...

[https://en.wikipedia.org/wiki/William\\_Edward\\_Hanley\\_Stanner](https://en.wikipedia.org/wiki/William_Edward_Hanley_Stanner)   
 In 1968 Prof W.E.H. Stanner presented the Boyer Lectures titled "After the Dreaming". The Boyer Lectures began in 1959 as the ABC (Australian Broadcasting ...   
 Biography - Early career - WW2 Military service - Career post WW2

## Stanner, William Edward - Australian Dictionary of Biography

<adb.anu.edu.au/biography/stanner-william-edward-bill-15541>   
 William Edward Hanley Stanner (1905–1981), journalist, soldier and .... Room ( AIATISIS), W. E. H. Stanner Building, ANU, and Stanner Street, Bonner, ACT, ...

## <sup>[PDF]</sup> The Great Australian Silence - Australian Political Studies ...

[www.auspsa.org.au/.../reconciliation\\_and\\_the\\_great\\_australian\\_silence\\_a...](http://www.auspsa.org.au/.../reconciliation_and_the_great_australian_silence_a...)   
 by A Gunstone - Related articles   
 In 1968, W.E.H. Stanner delivered a lecture, 'The Great Australian Silence in which he ... was a 'cult of forgetfulness practised on a national scale' (Stanner 1968).

## WEH Stanner and the Great Australian Silence - ABC

[www.abc.net.au/rn/.../222-weh-stanner-and-the-great-australian-silence/](http://www.abc.net.au/rn/.../222-weh-stanner-and-the-great-australian-silence/)   
 The man who changed the way Australians thought about themselves, their country and Indigenous culture has gone largely unheralded. WEH (Ted) Stanner ...

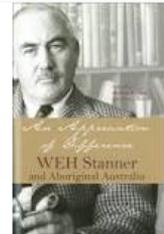
## The Dreaming & Other Essays | Black Inc. Publishing

[www.blackincbooks.com/books/dreaming-other-essays](http://www.blackincbooks.com/books/dreaming-other-essays)   
 W.E.H. Stanner's words changed Australia. Without condescension and without sentimentality, in essays such as 'The Dreaming' Stanner conveyed the richness ...

## W.E.H Stanner | Black Inc. Publishing

[www.blackincbooks.com/authors/weh-stanner](http://www.blackincbooks.com/authors/weh-stanner)   
 W.E.H Stanner. William Edward Hanley Stanner was born in Sydney in 1905. Stanner helped to shape the growth of Australian anthropology, and his principal ...

## William Edward Hanley Stanner



William Edward Hanley "Bill" Stanner CMG was an Australian anthropologist who worked extensively with Indigenous Australians. [Wikipedia](#)

**Born:** November 24, 1905, [Sydney](#)

**Died:** October 8, 1981, [Canberra](#)

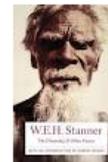
**Education:** [University of Sydney](#), [London School of Economics and Political Science](#)

### Books

[View 2+ more](#)



On aboriginal religion  
1959



The Dreaming and Other...



White man got no dreaming  
1979



The South Seas in transition  
1953



People from the Dawn: Re...

[Feedback](#)

The Google knowledge graph is an example of linked data. <https://www.google.com.au/#q=william+stanner>

# How is linked data of benefit to libraries and archives?

*What if*

a search on Google brought up an item held in a library or archive?

# Why can't we do that now?

- MARC records can't be understood by the web
- MARC doesn't support complex linking relationships between entities

# New model for describing bibliographic data



- BIBFRAME Uses Linked Data model
- Adopted FRBR model (Functional Requirements for Bibliographic records)
  - Work
  - Expression
  - Manifestation
  - Item

# Comparison

## MARC

```
01154cam a22003417a 4500
001 16117291
005 20111216110724.0
008 100301s2009 at b 000 0 eng
010 $a 3609482971
020 $a9780975704431 (pbk.)
020 $a0975704435 (pbk.)
035 $a(OCoLC)ocn495575513
040 $aAU$beng$cAU$dLUI$dY9#$DLC
042 $aanuc$aalccopycat
050 00 $aGM476$b.336 2009
002 04 $a363.700099915$222
100 1 $aJanke, Terri.
45 10 $aWriting up indigenous research : $bauthorsh:
Terri Janke, Terri Janke and Company.
260 $aOceania, 2009. $bTerri Janke & Comp. Comp
300 $a26 p. ;$c30 cm.
504 $aIncludes bibliographical references (p. 22
650 0 $aEthnoscience.
650 0 $aCopyright$zAustralia.
650 0 $aIntellectual property$zSocial aspects.
650 0 $aTraditional ecological knowledge$zAustrali
650 7 $aIndigenous knowledge.$2a1atsiss
650 7 $aLaw - Intellectual property.$2a1atsiss
650 7 $aResearch.$2a1atsiss
710 2 $aTerri Janke & Company
```

## BIBFRAME (Turtle)

```
@prefix bf: <http://bibframe.org/vocab/> .
@prefix madsrdf: <http://www.loc.gov/mads/rdf/v1#> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix relators: <http://id.loc.gov/vocabulary/relators/> .
@prefix xml: <http://www.w3.org/XML/1998/namespace> .
@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .

<http://id.loc.gov/resources/0180/16117291> a bf:Text,
bf:Work ;
bf:authorizedAccessPoint "Janke, Terri. Writing up indigenous research : authorship, copyright and indigenous knowledge systems / written by Terri Janke, Terri Janke and Company.Writing up indigenous research : authorship, copyright and indigenous knowledge systems".
bf:hasInstanceOf <http://id.loc.gov/resources/0180/16117291> ;
bf:instanceTitle [ a bf:title ;
bf:label "Writing up indigenous research : authorship, copyright and indigenous knowledge systems / written by Terri Janke, Terri Janke and Company." ;
bf:subtitle "authorship, copyright and indigenous knowledge systems " ;
bf:titleValue "Writing up indigenous research : " ] ;
bf:classification [ a bf:classification ;
bf:classificationEdition "32".
bf:classificationNumber "363.700099915" ;
bf:classificationScheme <http://id.loc.gov/authorities/classification/ddc> ;
bf:label "363.700099915" ] ;
bf:classificationLoc <http://id.loc.gov/authorities/classification/GM476> ;
bf:contributor [ a bf:Organization ;
bf:authorizedAccessPoint "Terri Janke & Company" ;
bf:hasAuthority [ a madsrdf:Authority ;
madsrdf:authoritativeLabel "Terri Janke & Company" ] ;
bf:label "Terri Janke & Company" ] ;
bf:creator [ a bf:Person ;
bf:authorizedAccessPoint "Janke, Terri." ;
bf:hasAuthority [ a madsrdf:Authority ;
madsrdf:authoritativeLabel "Janke, Terri." ] ;
bf:hasInstance [ a bf:Instance,
bf:Monograph ;
bf:dimensions "30 cm." ;
bf:extent "26 p. ;" ;
bf:heldIn [ a bf:HeldIn ;
bf:label "GM476 .336 2009" ;
bf:shelfMarkLoc "GM476 .336 2009" ] ;
bf:instanceOf <http://www.loc.gov/resources/0180/16117291> ;
bf:instanceTitle [ a bf:title ;
bf:label "Writing up indigenous research : authorship, copyright and indigenous knowledge systems / written by Terri Janke, Terri Janke and Company." ;
bf:subtitle "authorship, copyright and indigenous knowledge systems " ;
bf:titleValue "Writing up indigenous research : " ] ;
bf:label "http://id.loc.gov/resources/0180/16117291" ;
bf:shelfMark "http://id.loc.gov/resources/0180/16117291" ;
bf:uri <http://id.loc.gov/resources/0180/16117291> .
```

# BIBFRAME can include user generated content

The image shows a screenshot of a BIBFRAME record for the work "Das Innere des Glaspalastes in London". On the left, there are filters for Search (Crystal Palace), Resource Type (language material, not fiction, Text), Creator (Faber, G. W.), Subject (Crystal Palace (London, England), Great Britain, Great Exhibition, Peepshows, Toy and movable books.), and Publisher (S.R.). The main record area shows the title, creator (Faber, G. W.), and a detailed note(s) section. A subject section lists "Tunnel books", "Crystal Palace (London, England)", and "Great Britain / History / Victoria, 1837-1901". A large photograph is attached to the record, showing a woman in a black jacket kneeling and showing a book to two young boys. A smaller version of this photo is also shown in a "Images" section on the right. The URL <http://www.loc.gov/bibframe/pdf/marclid-report-11-21-2012.pdf> is provided at the bottom left.

1 WorkRecord filtered from 2260 originality ([Reset All Filters](#))

sorted by: [labels](#); then by... +  grouped as sorted

1. **Das Innere des Glaspalastes in London = The interior of the Crystal Palace in London : a view into the life and doings of London during the Great Industrial Exhibition.**

Creator **Faber, G. W.,**

Note(s) Title from hand-colored first leaf.  
The title forms the front cover with a single open peep hole in center. The leaves are hand-colored cutout panels, connected at the sides by folded paper panels, accordion style folded to 18 x 23 cm. When unfolded, full length extends to 44 cm and forms a telescopic "peep show" of views of the interior of the Crystal Palace exhibition hall in London from 1851.  
German title is listed first: Innere des Glaspalastes in London ; ein Blick in das Leben und Treiben bei der grossen Weltausstellung.  
French title: Intérieur du Palais de cristal de Londres. Italian title: Interno del Palazzo di cristallo in Londra.  
On front cover: "Original-Eigentum G.W.F."  
LC copy in clam-shell box signed "Horton Bindery" with label on spine: The great exhibition, 1851.

Subject **Tunnel books**  
**Crystal Palace (London, England)**  
**Great Britain / History / Victoria, 1837-1901**

**the Crystal Palace in London : a view into the life and doings of London during the Great Industrial Exhibition.**

**Holdings**

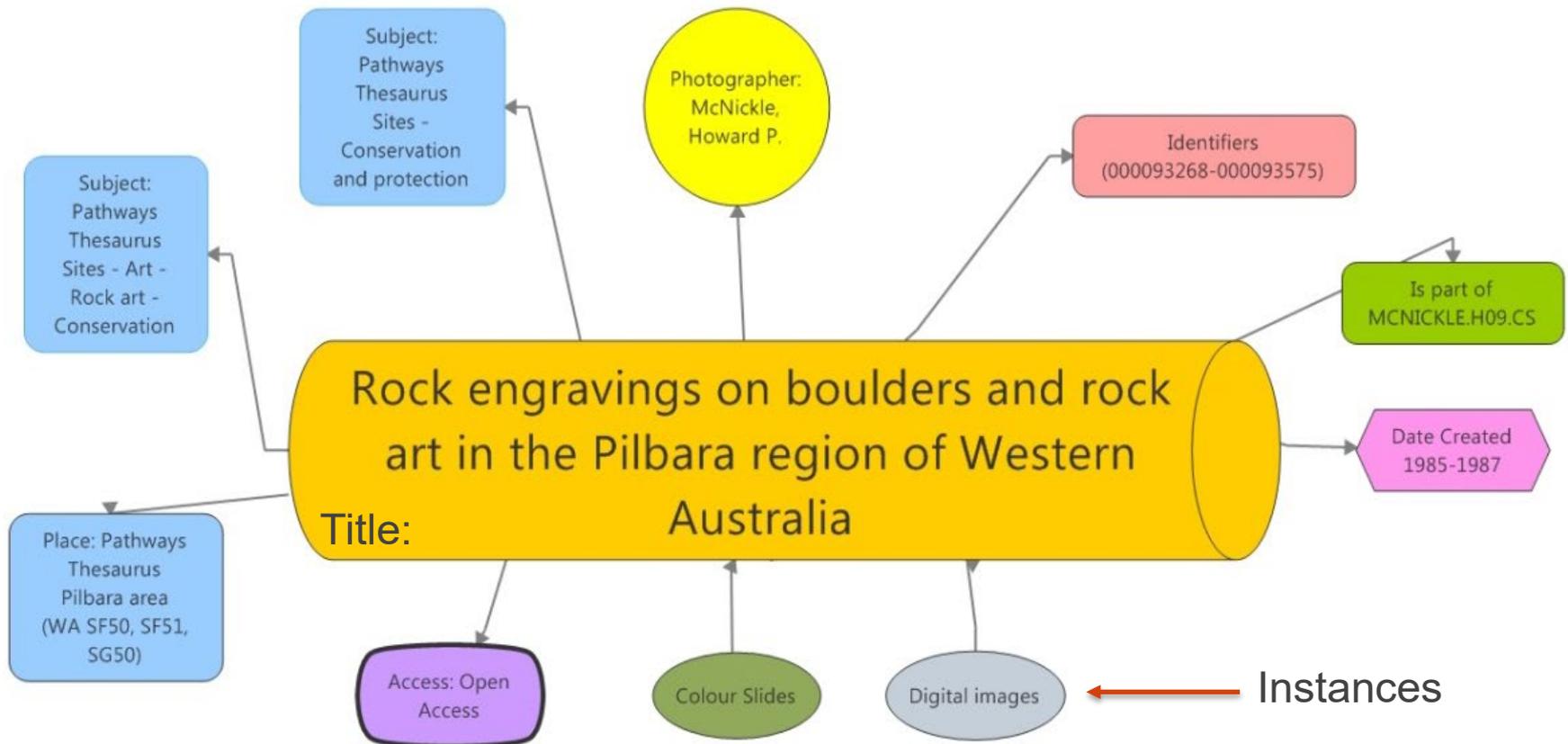
**Images**

credit:

<http://www.loc.gov/bibframe/pdf/marclid-report-11-21-2012.pdf>

Figure 3: User contributed photograph as annotation of BIBFRAME instances.

# Retaining and enhancing contextual relationships



Conceptual example showing relationships of a photograph from a collection held by AIATSIS

# The potential to discover and share authoritative information with the wider community

- Establishing appropriate personal name authority headings
- Personal name authorities loaded to Libraries Australia
- VIAF (the Virtual International Authority File)
- VIAF uses linked data technologies

# When will BIBFRAME be available?

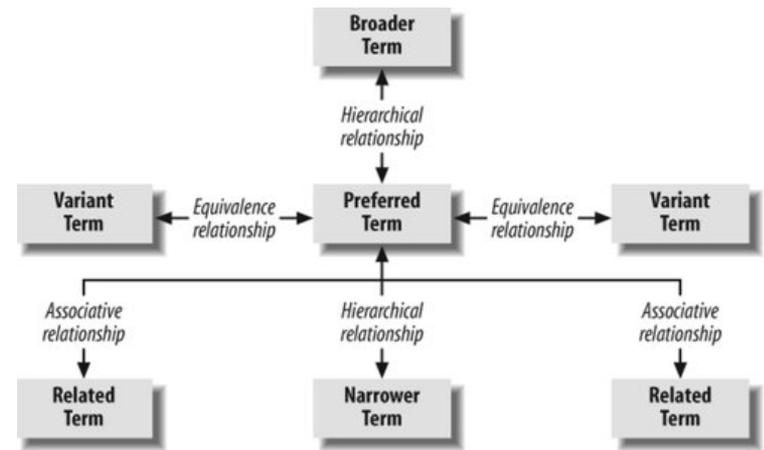
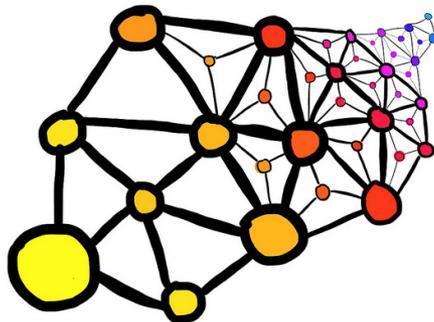
- BIBFRAME is a work in progress
- There are tools to transform MARC records into BIBFRAME

# Linked data may be able to show relationships to information in a better way than is currently possible with a hierarchical thesaurus structure

Indigenous Knowledge Systems

AIATSIS Pathways Thesauri

Eurocentric Classification Schemes

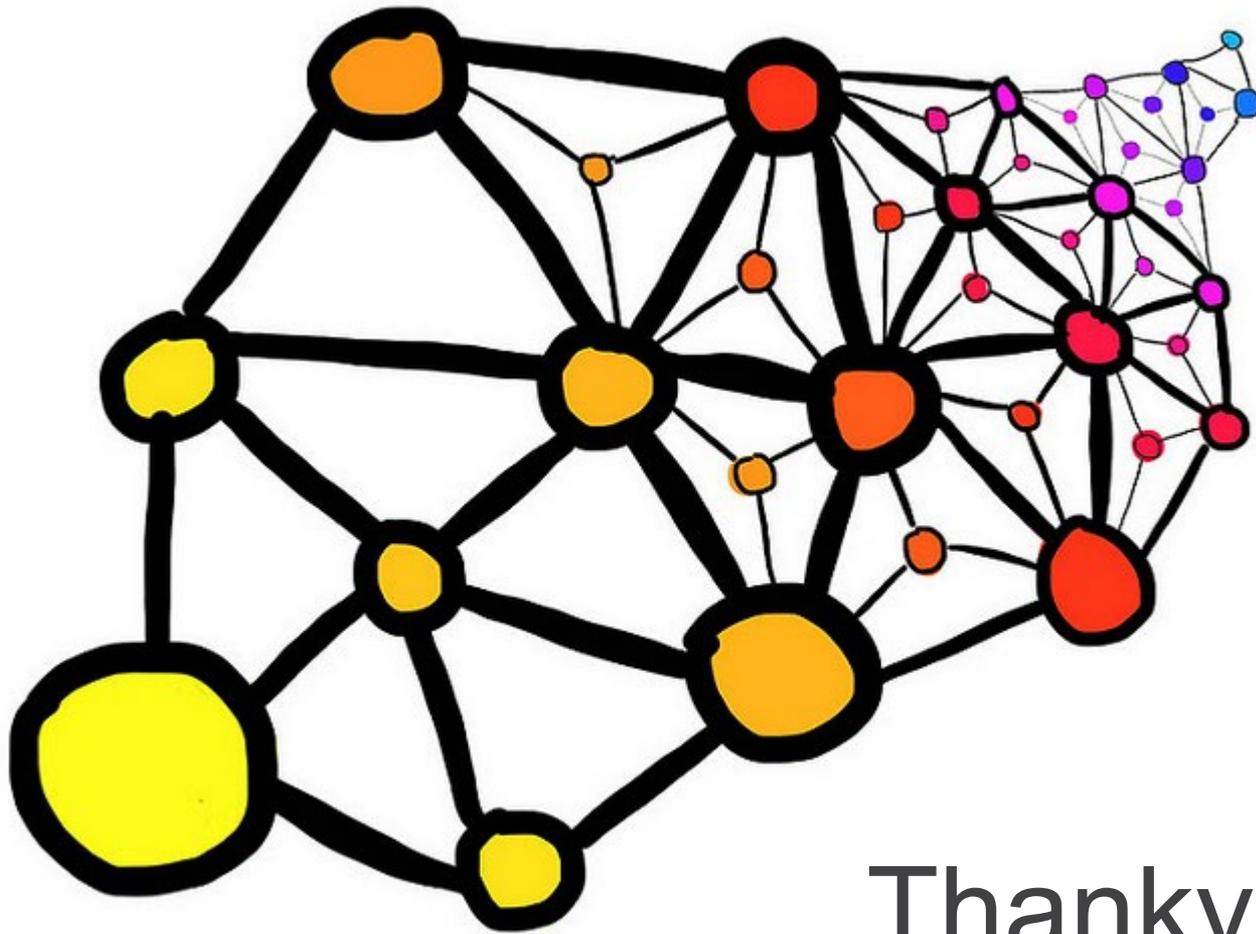


<http://blog.dlib.nyu.edu/2014/12/11/cni-fall-2014-dispatch-its-all-about-relationships/>

[http://seanconnolly.ca/web/0596527349/0596527349\\_CHP\\_9\\_SECT\\_2.html](http://seanconnolly.ca/web/0596527349/0596527349_CHP_9_SECT_2.html)



AIATSIS



# Thankyou!

Image by Elco Van Staveren  
<https://www.flickr.com/photos/103454225@N06/9965173654>