

# **CCS User Guide**

(Adapted from Web Standards Project Training Materials, as revised  
September 2002)

## **Contents:**

What is Classification? .....	3
Why Classify? .....	3
Basic Principles of Classification.....	4
Using the Content Classification Scheme (CCS) .....	7
Step one: take stock of the resource.....	7
Step two: choose headings from the CCS .....	8
A. Using the CCS headings.....	8
B. Using the CCS thesaurus .....	11
Decide on the level of specificity .....	13
Decide on the number of leaf terms to choose.....	14
Final check.....	14

## What is Classification?

Classification allows the grouping together of things which are alike, according to some common quality or characteristic and from a particular perspective.

## Why Classify?

Classification is important because it allows people to access and use information systems. It provided structure and order to an otherwise unmanageable mass of information.

- Imagine trying to find a number in the phone book if the entries weren't classified alphabetically, or trying to find a business in Yellow Pages if they weren't grouped by type of service.
- Imagine trying to find a book in your local library if books were not classified according to a consistent scheme.

### Exercise 3 – A simple classification

Classify the items in the following list:

Car  
Turtle  
Snake  
Bus  
Cat  
Taxi  
Dog  
Bicycle  
Horse

How did you arrive at your chosen classification?

## Basic Principles of Classification

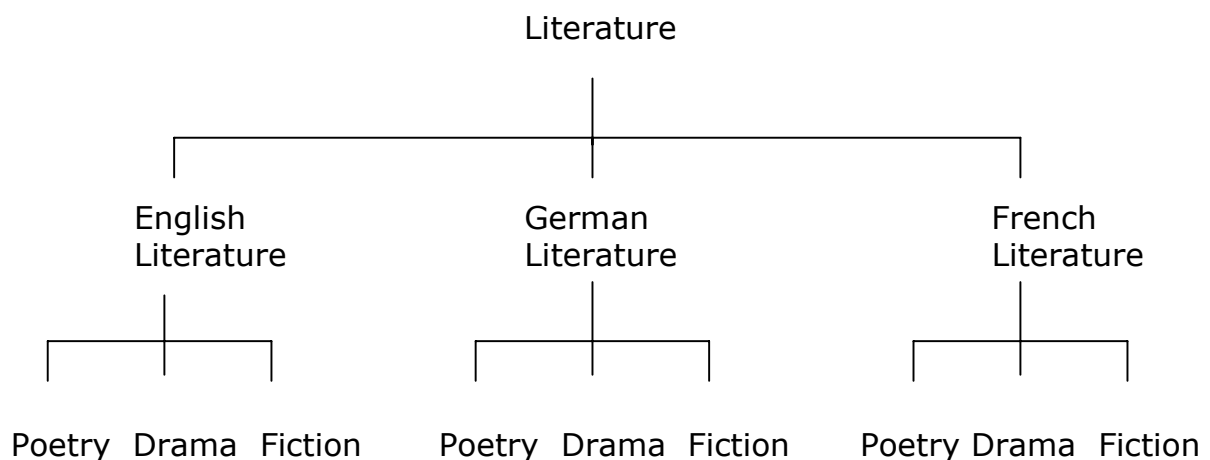
In any information system, a classification scheme must be able to cater for simple subjects consisting of simple concepts, e.g.

**Children**  
**Psychology**  
**Teaching**  
**Steel**  
**Wires**

as well as more complex subjects formed by combining the above concepts e.g. **Child Psychology**

One commonly used method of organising information adopts a hierarchical approach to classification.

In classification, a hierarchical scheme is a series of classes or groups in successive subordination. Using a simple example to illustrate this:



Each entity falls into a subgroup of a larger group: "English Poetry" is a subgroup of "English Literature" which in turn forms part of the larger group "Literature".

As the process of division continues more complex subjects are listed. In the above example, the first subdivision is language, the second is literary form. This determines the *citation order* for the classification numbers for the complex subjects listed in the scheme. The citation order is therefore **Language → Literary Form**.

To complete the classification, a *simple notation* consisting of *numeric digits* can be applied to create *classification numbers*:

1	Literature
11	English Literature
111	Poetry
112	Drama
113	Fiction
12	German Literature
121	Poetry
122	Drama
123	Fiction
13	French Literature
131	Poetry
132	Drama
133	Fiction

The following steps have been taken to arrive at the above classification:

- Analysis of relevant concepts (literature, language, literary form).
- Grouping into a hierarchical structure according to appropriate characteristics (in the above example it would be helpful to place the "home" language (i.e. English) first then related European languages followed by other languages).
- Adding Notation (e.g. 111 for English poetry).
- Choosing a citation order (the first subdivision is language, the second is literary form, the citation order is therefore Language → Literary Form).

The structure of the classification scheme itself acts as an aid to classification.

Hierarchical schemes:

- Are generally widely accepted and widely used with considerable success throughout the world for a long period of time
- Fairly short/uncomplicated notation (numbering system) can be used

However with Hierarchical schemes:

- It is not feasible to list every conceivable subject
- Regular revision may be required so that new subjects may be incorporated at any time.

A well-known example of a hierarchical classification scheme is the *Dewey decimal* classification scheme used by most public libraries. The limitations of this scheme however mean that books only have one place on the shelf. Resources like web pages however can be allocated a number of subject categories.

The Content Classification Scheme (CCS) uses a *poly-* hierarchical approach. Elements can exist in more than one branch of the scheme. Information items can have more than one classification. For example the "electronic shopping" exists under two top-level headings in the scheme – "Communications and Media" and "Consumer Affairs". The term has exactly the same meaning in all the places it appears.

## **Using the Content Classification Scheme (CCS)**

(Source: Adapted from User Guide to the LAMS Content Classification Scheme Stella Dextre Clarke and Christine Miskin, Granite and Comfrey Information Engineers)

The CCS is used to classify the content of web pages. There are two main steps to doing this:

### **Step one: take stock of the resource**

- A website may cover many concepts – it is more convenient for the user to be taken to the page or section where their specific need is addressed rather than being taken to the site's home page.
- Scan or read the web page to establish the subject or main themes.
- Consider what the document is about from the perspective of the user (i.e. mostly people needing advice or lay advisers rather than legal professionals).
- There may be just one dominant theme to pick out or two or more key concepts that need to be indexed separately.

## Step two: choose headings from the CCS

Now you have the key concepts in mind you need to turn to the CCS in order to choose the headings that best cover these concepts.

There are two ways of doing this:

- A. Using the main headings
- B. Using the thesaurus.

### A. Using the CCS headings

- Look at the top-level headings to pick out the most relevant one (see Fig. 5 for the main CCS headings). Top-level headings (e.g. 8.0 Government Law and Rights – see Fig. 6 below) **cannot** be selected and are known as “**non-leaf terms**”.
- Below your chosen top-level heading there will be subheadings. Subheadings that have further subdivisions are also non-leaf terms so cannot be selected (e.g. 8.4 Human Rights – see Fig. 6 below). Subheadings that have no further subdivisions **can** be selected and are known as “**leaf terms**” (e.g. 8.1 Access to Justice – see Fig. 6 below)
- Select any possible suitable subheadings and look carefully at any subheadings they may have as well as their scope notes and any cross-references to related headings. Fig. 6 below shows what happens if you select “Government, Law and Rights”, then its subheading “Human Rights”, to reveal subheadings. Fig. 7 shows the further details for “Privacy”

#### Fig 5 -Main CCS Headings

Benefits  
Communications and Media  
Consumer Affairs  
Education and Training  
Employment  
Environment and Countryside  
Families  
Government, Law and Rights  
Health and Social Care  
Housing and Homelessness  
Immigration and Nationality  
Leisure, Transport and Travel  
Money and Tax  
Police and Crime

- Having expanded the scheme in the most relevant areas, choose at least one **leaf term** that fits best with the key concepts you identified in step one.
- Make a final choice as to the most relevant leaf terms

<b>8</b>	<b>Government, Law and Rights</b>
8.1	Access to justice
8.2	Democratic process and voting
8.3	European Union
8.4	Human rights
8.4.1	Access to information
8.4.2	Free speech
8.4.3	Freedom of association
8.4.4	Freedom of the person
8.4.5	Privacy
8.4.6	Right to fair trial
8.4.7	Right to family life
8.5	Local government
8.6	Ombudsmen and regulatory authorities
8.7	Personal injuries litigation

**Fig. 6: Hierarchy for the subheading "Human Rights"**

<p><b>Privacy</b></p> <p>Includes information about the right not to have details about a person's private life made public unless it is in the public interest. This right has been incorporated into English law by the Human Rights Act 1998.</p> <p><i>See also</i> Photography</p>
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**Fig. 7: Scope note and cross-reference for "Privacy"**

#### **Exercise 4 –overview of the CCS – Classifying web page content**

Here are some examples to help you find general headings in the content classification scheme. Using a copy of the CCS headings, decide which **leaf terms** you would use to classify web pages with the following content:

1. A web page about immigration issues
2. A web page about claiming Working Families' Tax Credit, a work-related benefit
3. A web page about your rights if you have been threatened with redundancy or unfairly dismissed from a job
4. A web page about your rights when shopping over the Internet
5. A web page about getting a grant to go to university
6. A web page about getting compensation for an accident or injury
7. A web page about getting treatment for drug abuse
8. A web page about buying the freehold of a flat
9. A web page about getting compensation for a package holiday that went badly wrong
10. A web page about paying back money owed to a credit card company

## B. Using the CCS thesaurus

Sometimes the route down through the hierarchy is not straightforward and you can't see any headings that look relevant. In this situation you can use the CCS thesaurus which contains all the headings available, with all their synonyms and cross-references. For each heading the thesaurus will show the scope note and cross – references.

Fig. 8 below shows four thesaurus entries on related subjects. Below each term the links to related terms are shown. The abbreviations and numbering are shown in Fig. 9.

- The thesaurus includes many terms not present in the CCS headings – synonyms of the allowed headings, each of which points to the corresponding preferred heading. E.g. if you use the key term "Disability benefits", you will be directed to an entry "Disability Benefits USE Sickness and disability benefits" (i.e. Sickness and disability benefits is the preferred term).
- Use the scope notes of the entry for the "preferred term" and cross reference to help you decide the most appropriate **leaf term** to use for the subject of the web page you are considering.

<b>Pregnancy</b>	
SN	Includes information about the health care rights of pregnant women. Use maternity rights for the employment rights of pregnant women.
USE	Ante natal care
BT	Families
BT	Health and Social Care
RT	Abortion
RT	Families and children's benefits
RT	Maternity rights
<b>Pregnancy (Termination)</b>	
USE	Abortion
<b>Abortion</b>	
SN	Includes information about the legal regulation of the termination of pregnancy under the Abortion Act 1967.
UF	Pregnancy (Termination)
UF	Termination of pregnancy
BT	Birth
RT	Birth control
RT	Pregnancy
<b>Birth</b>	
SN	Includes information about birth including any issues relating to unborn children, and surrogacy. Also covers the legal aspects of registration of births.
UF	Registration of births
UF	Reproduction
UF	Surrogacy
UF	Unborn children
BT	Families
NT	Abortion
NT	Birth certificates
NT	Birth control
RT	Health and Social Care

**Fig. 8: Some examples of linked thesaurus entries**

N.B. **Only leaf terms** from the scheme can be used to classify your web page content (i.e. subheadings that have no further subdivisions).

SN	Scope Note
USE	Use the term on the right in preference to the entry term
UF	Use for. The term on the right is regarded as a synonym of the entry term
BT	Broader Term
NT	Narrower Term
RT	Related Term

**Fig. 9: Key to abbreviations and numbering in thesaurus entries**

Whether you classify a web page using the main CCS headings or by using the CCS thesaurus there are some other things to do when selecting headings from the CCS.

### **Decide on the level of specificity**

- Always use the most specific appropriate level (e.g. a site dealing with treatments for people addicted to drugs could be covered by the concept "Addiction", however the **leaf term** "drug addiction" applies more specifically so choose this term.
- Some web pages may deal with matters that fall within the scope of the scheme but are too specialised to have a specific leaf term (e.g. advice on consumer rights in respect of dry cleaners and laundry services). Under the top level heading "Consumer Affairs", there is a sub heading for "Consumer services" with leaf terms underneath it for "Catering services", "Delivery services" etc., but nothing specifically for cleaning services. You may think the subject is sufficiently important for this particular entry to be added to the scheme. If so, you can download and fill out a 'Change request form' from the same 'Download a resource' section from which you downloaded the CCS User Guide.

## **Decide on the number of leaf terms to choose**

- There is no limit on the number of appropriate leaf terms that may be chosen, however at least one leaf term must be chosen.
- Two or three leaf terms may be chosen if appropriate. If you think more than this number should be applied, you should select all the relevant leaf terms or consider whether it would be feasible to split the page into further separate pages and index them separately.

Then choose the option that would be more convenient for most of the likely users

- Occasionally you may find the same heading in two different places in the scheme – e.g. “Electronic shopping” appears under “Communications and Media” as well as under “Consumer Affairs”. It means exactly the same in both places and does not need to be added twice.

## **Final check**

- Check to make sure the leaf terms you have selected are the ones you intended to select.
- Ask yourself if your users would find the leaf term you have selected appropriate – if the answer is no, find a better one.
- Ask yourself if there is another leaf term in the scheme that covers the concepts on the web page - if you can think of another likely leaf term go back and add it.