

# Web Applications

## Web Site Design Issues

Martin Caminada  
Chris Jones

# What makes a Web site good to use?

amazon.co.uk  
Try Prime

Christo... 's Amazon Today's Deals Gift Cards Sell Help

CYBER MONDAY Great Deals On Hundreds of Products > Shop now  
Sponsored by XBOX ONE

Shop by Department ▾

Search All ▾

Go

Hello, Christopher ▾

Try Prime ▾

Basket ▾

Wish List ▾

XBOX ONE

ASSASSIN'S CREED UNITY

ASSASSIN'S CREED BLACK FLAG

Expand to video +

Ad

Kitchen Appliances Sale

Ed Sheeran

Fire HD 7 & TV

Clothing Store

Appstore for Android

Audible Audiobooks

Amazon uses cookies. What are cookies?

fire HD7

£119 from £99

> Shop now

amazon fireTV

CYBER MONDAY from only £399

Amazon Family

The Console Shop

Cyber Monday Deals

BBC

News Sport Weather iPlayer TV Radio More...

Search

LONDON  
MONDAY, 5 NOVEMBER

Mon 10°C

Tue 8°C

Wed 11°C

Discover the explosive story behind Bonfire Night

BBC NEWS | HEALTH  
Over-65s heart death inequality

BBC FOUR | FACTUAL  
Storyville  
32. JFK's Road to the Whi...

FOOD  
Goodbye from the BBC Food blog

NATURE  
Beavers

BBC NEWS  
SCIENCE & ENVIRONMENT  
Italy quake scientists convicted

BBC RADIO 5 LIVE | FACTUAL  
Jason Roberts Meets Fabri...

Train times & tickets

Edit journey / add return Passengers & r

Cardiff Central [CDF] to Inverness [INV]

1st First class From £453.

Outward Tue 02 Dec

Set up journey al

Earlier trains

Long journey? Why not upgrade to First Class from £227

| Dep.  | From                  | To              | Arr.  | Dur.    | Chg. | Sta                       |
|-------|-----------------------|-----------------|-------|---------|------|---------------------------|
| 06:50 | Cardiff Central [CDF] | Inverness [INV] | 16:54 | 10h 04m | 3    | <a href="#">Details</a>   |
| 08:05 | Cardiff Central [CDF] | Inverness [INV] | 18:21 | 10h 16m | 3    | <a href="#">Details</a>   |
| 10:05 | Cardiff Central [CDF] | Inverness [INV] | 20:06 | 10h 01m | 2    | <a href="#">Details</a> ✓ |
| 10:50 | Cardiff Central [CDF] | Inverness [INV] | 21:01 | 10h 11m | 3    | <a href="#">Details</a> ✓ |

£225.50

Buy now

thereafter.\*

Anytime

Other tickets ▾

ues

# Issues in Web Site & Web Page Design

- Informative well written, well-illustrated content
- Logical structure of web site and content
- Navigational aids
- What's in a page: quantity / “readability”
- Individual page design
  - Use of colour
  - Use of fonts
  - Use of images
  - Use of links
  - Consistency
- Administrative data

# Information structure / organisation

**BBC** Sign in News Sport Weather iPlayer TV Radio More Search

**LONDON**  
MONDAY, 1 DECEMBER

Mon 9°C 5°C Tue 9°C 6°C Wed 10°C 5°C  
Change your location | 5 day forecast

**Global killer: Where did Aids come from?**

**BBC NEWS | TECHNOLOGY**  
Sony makes experimental paper watch

**2001: A SPACE ODYSSEY**  
Does Kubrick's masterpiece stand the test of time?

**BBC IPLAYER**  
World's Greatest Food Markets, India

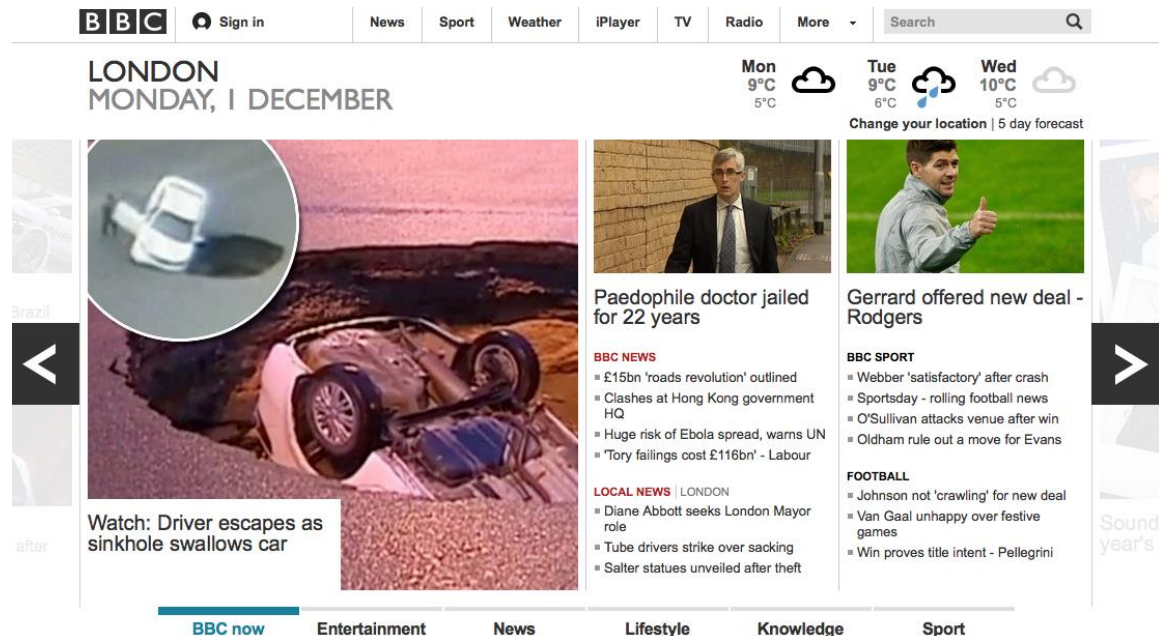
**THEATRE AWARDS WINNERS**  
Gillian Anderson scoops top actress - who else won?

BBC now Entertainment News Lifestyle Knowledge Sport



# Logical structure of web site and content

- Organise the information content with care
  - identify main categories of information (may be sections and subsections)
- Divide information into "logical" chunks of information that may appear on a single page
  - Overviews (links) vs specific topics
- Hierarchies and linear sequences
  - often need both

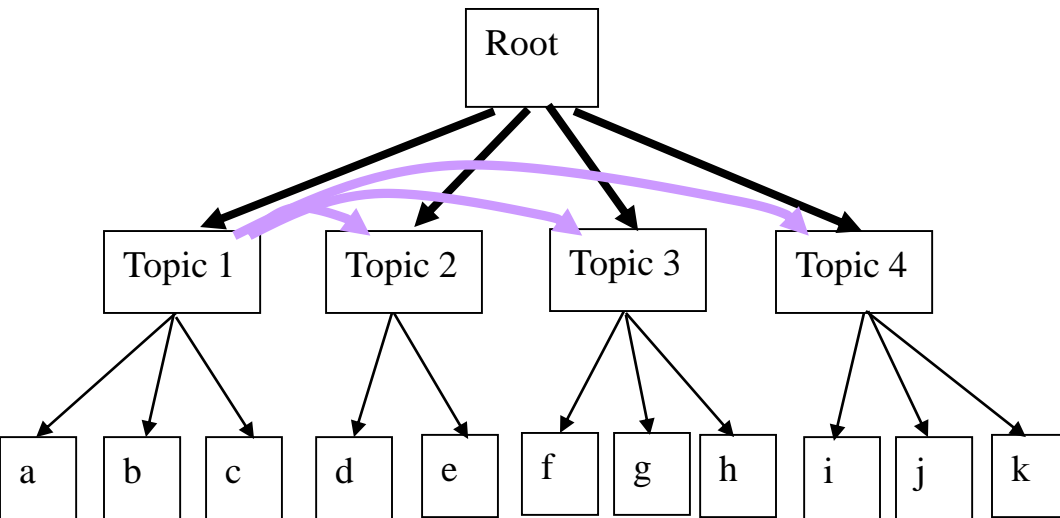


# Hierarchies and linear sequences

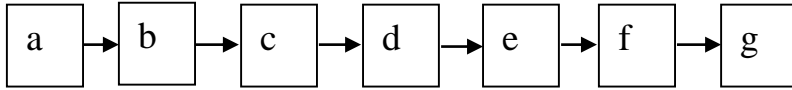
## Hierarchies :

root may be overview of the entire subject matter :  
i.e. home page.

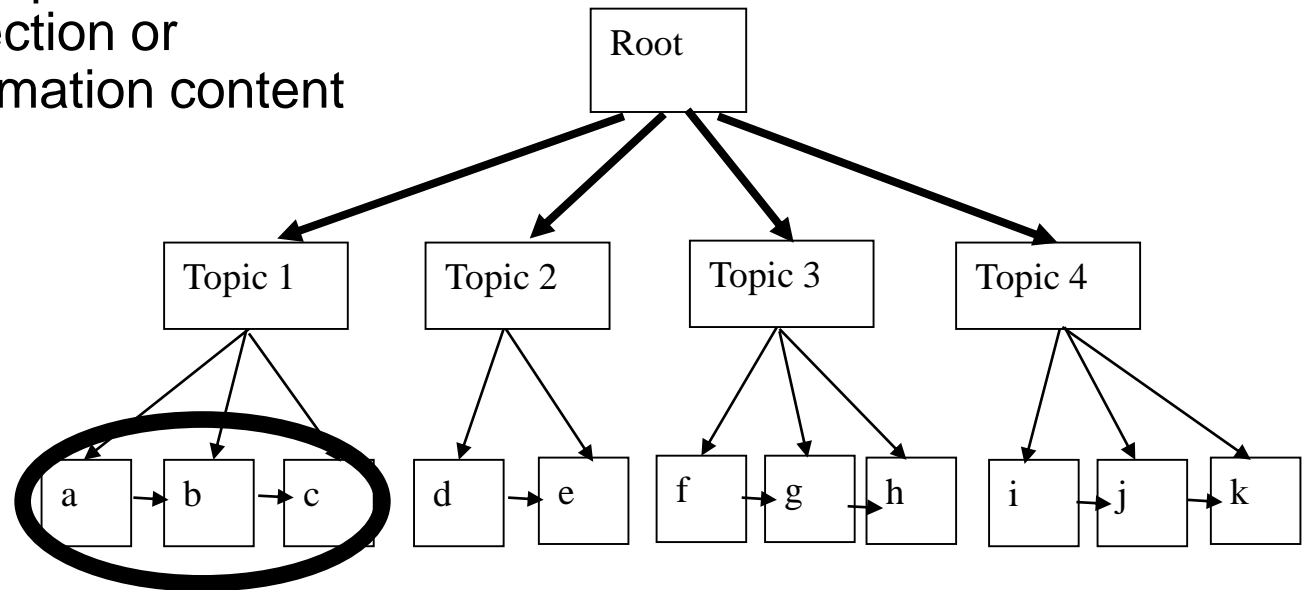
- should point to the main categories (sections),
- each category of which leads in turn to sub-sections,  
Or to related topics at same level



# Linear sequences



- Sequences lead the user through an individual topic that is best treated in an ordered manner.
- For most sites a sequence will correspond to a section or subsection of information content



# Navigational Links:

## Do not let the user get lost in hyperspace

John Lewis

[John Lewis Insurance](#)

[What's new](#)

[Our shops](#)

[Your orders](#)

[Customer services](#)



08456 049 049

[Your basket](#) 0 items

[Search](#)

Keyword, product code, shop name



[Christmas](#)

[Home & Garden](#)

[Electricals](#)

[Women](#)

[Men](#)

[Beauty](#)

[Baby & Child](#)

[Toys](#)

[Sport & Leisure](#)

[Gifts](#)

[Special Offers](#)

FREE STANDARD DELIVERY ON ALL ORDERS OVER £30

CLICK & COLLECT ORDER BY 7PM, COLLECT FROM YOUR CHOSEN SHOP TOMORROW



### This month's highlights

- > Halloween
- > Beanbags
- > New: OXO Tot
- > All-in-one printers
- > Women's nightwear

### TV & Video

- > TV & Video
- > TV & Video

### Shop by Room

- Living Room
- Dining Room
- Bedroom
- Bathroom
- Kitchen
- Office
- Laundry Room
- Children's Room
- Nursery
- Garden & Conservatory

### Home Furnishings

- Bath Linen
- Bedding
- Curtains & Poles
- Blinds
- Cushions, Beanbags &...

John Lewis

[John Lewis Insurance](#)

[What's new](#)

[Our shops](#)

[Your orders](#)

[Customer services](#)



08456 049 049

[Your basket](#) 0 items

[Search](#)

Keyword, product code, shop name



[Christmas](#)

[Home & Garden](#)

[Electricals](#)

[Women](#)

[Men](#)

[Beauty](#)

[Baby & Child](#)

[Toys](#)

[Sport & Leisure](#)

[Gifts](#)

[Special Offers](#)

Homepage > Home & Garden

### Home & Garden



#### Gifts by Type

- Gift Food, Wine & Champagne
- Gifts for £10 & Under
- Gift Experiences
- Leather Gifts
- Silverware
- Gifts for the Home
- Hampers
- Flowers & Plants
- A Celebration of Britain

#### Gifts by Recipient

- For Her
- For Him
- For Teenage Boys
- For Teenage Girls
- For Boys
- For Girls
- For Babies
- For Grandparents

#### Gifts by Occasion

- Halloween
- Wedding
- Anniversary
- Engagement
- New Baby
- Graduation, First Job
- New Home
- Christening Gifts
- Retirement
- London 2012 Gifts & Souvenirs

- > Furniture
- > Sofas

1 2 3 4

FREE STANDARD DELIVERY ON ALL ORDERS OVER £30

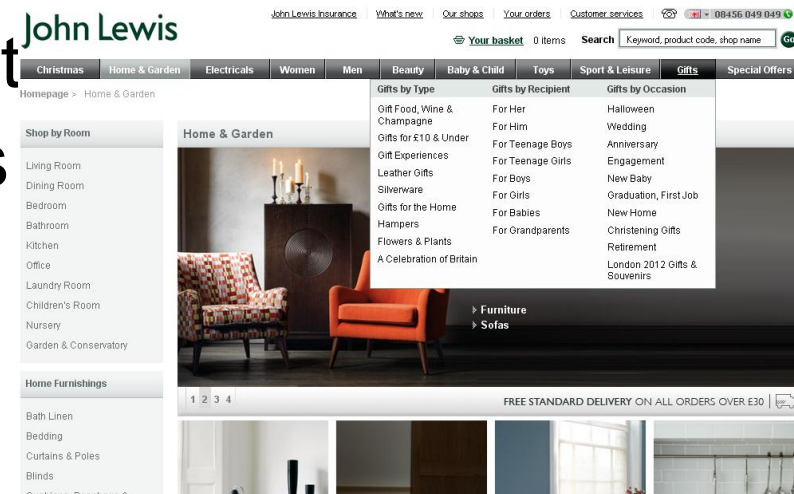




# Navigational Links:

## Do not let the user get lost in hyperspace

- Home page should list all major categories of information
    - Good if ALL pages list major categories
  - **Where am I?** For all pages, at least provide:
    - an indication of the category / section to which it belongs
    - a link to home page
  - **In a hierarchy ensure that user can easily ascend:**
    - via a home page link at least
    - maybe also to local sections or overviews
  - **In a linear sequence, ensure that they are all linked by *next* and *previous* links**
- What navigational aids on this site?



# What's in a web page?

- Limit amount of data in a page
  - lots of scrolling can be annoying
  - internal page links ? Maybe separate pages are better
- Make sure language is clear
  - proof read content carefully (use spell checkers)
- Avoid monolithic pieces of text
  - screen more difficult to read than hard copy



To make reading the text easier :

- divide up content using **headings and subheadings**
- use lists to make a series of points – bullet points

# Page Layout

- Organise content of the page
- Create **coherent units of information**
- Regular pattern / structure is easier to read
- The brain tends to seek out patterns, so give it some





# Layout Grids



1 December 2014 Last updated at 12:02

## Climate talks open as world heats up



Delegates are set to meet in Peru to try and agree a negotiating text for a new global climate deal to be signed at the end of 2015.

How heat is changing Australia  
Could we change the climate?  
Obama and Xi in emissions pledge  
Fossil fuels must go by 2100 - IPCC

### Watch/Listen



### Features & Analysis



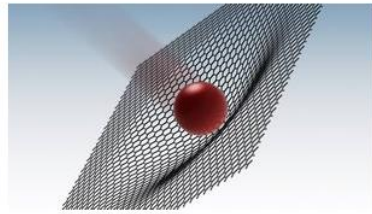
#### Momentous find

How Lucy changed the story of human evolution



#### Changing the climate

The possibilities of geo-engineering



#### Graphene promise for body armour

The "wonder material" graphene could be used to make bulletproof armour, new research suggests.  
The science of materials

Graphene 'made with kitchen blender'

Could graphene transform the future?



#### Risk from extreme weather rises

Royal Society says combination of population growth and climate change will increase danger to cities.

Extreme weather 'keeps people poor'

Use “white space” to separate logical units







## Lord Coe to run for IAAF presidency

Sebastian Coe announces he will run for presidency of the International Association of Athletics Federations (IAAF).



Farah to start season in



Rutherford 'would back'

## Headlines

Lavillenie and Adams win awards

DISABILITY SPORT Peacock 'shock' at difficult 2014

Adams calls for life bans for dopers

Doha wins 2019 World

SPORT 'Prize more to be close

SHEFFIELD YORKSHIRE Rape twee Ennis-Hill

SPORT Germany doping a c

WALES Welsh pai



Will it be third time lucky for Qatar's Olympic dream? OLYMPICS



The ex-Olympian working in League Two FOOTBALL

# SPORT TENNIS

30 November 2014 Last updated at 15:38



## Murray ends with two wins in Manila

Andy Murray enjoys two wins over a team including Nick Kyrgios and Serena Williams at the International Premier Tennis League.



GB duo lose in Masters



Is new tennis league

## Headlines

Murray & Sharapova beaten in Manila

Murray makes IPTL debut in Manila

DISABILITY SPORT Brit Whiley reaches Masters semis

SCOTLAND British number one Murray is engaged

Murray reshuffles coaching team

DISABILITY SPORT Brit Whiley beats Kamiji in Masters

Federer seals Cup for Swiss

DISABILITY SPORT Britons win Nottingham quad doubles

## Schedule and results

International Premier Tennis League

Official site

## World Tour Finals 2014



Federer pulls out of ATP Tour final

Roger Federer withdraws from the ATP World Tour final against Novak Djokovic, saying he is not "match-fit".

- Djokovic season has 'awkward end'
- What next for beaten Murray?
- ATP chief won't leave London to 'chase cash'
- Federer defeat hurts - Andy Murray column
- ATP Tour finals tables and results

# Aspects of Consistency

## LOCATION on page of

- Logo / title of page
- Navigational aids
- Main content
- Related information / features

## USE of

- Colours
- Text Fonts



# Colour Use

- Readability of text affected by tonal contrast. Light on dark use dark on light background or vice versa. Some combinations are difficult to read:

Readability of text affected by tonal contrast – use dark on light background or vice versa. Some combinations difficult to read.

Low tone  
contrast

GREEN

Simulation of  
red/green colour-  
blindness

Grey scale helps  
to appreciate  
level of contrast

Higher  
contrast

GREEN

GREEN

GREEN

Simulation of  
red/green colour-  
blindness

Grey scale helps  
to appreciate  
level of contrast



# red-green colour blindness example

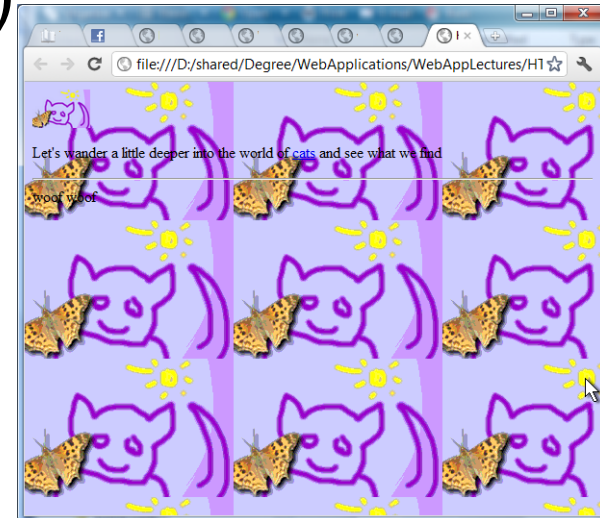


Copyright : Chapman : McAvon Media



# Images

- Help to illustrate concepts and may make site attractive
- Also **can waste space** and can take too long to download
  - So make sure image increases information content of the page
- If images liable to occupy too much space on a page use thumb nails (i.e. click for full size)
- **Background images** :
  - can divert attention from the information content of the web page  
(if in doubt don't bother)



# Links (explicit vs implicit/in-line)

- *Explicit* – if main purpose is to inform user of associated documents, then put in a list
- *Implicit* / tangential information – place links in-line

“when approaching the magical sight that is [Merthyr Tydfil](#) I spotted a woolly beast that waved a ....

## ? *Not so good:*

“when approaching the magical sight that is Merthyr Tydfil ([click here](#) for details), I spotted a woolly beast that

A screenshot of the Wikipedia page for Cardiff. The page layout includes a sidebar on the left with navigation links like 'Main page', 'Contents', and 'Featured content'. The main content area has the title 'Cardiff' and a subtitle 'From Wikipedia, the free encyclopedia'. Below this is a disambiguation note: 'For other uses, see Cardiff (disambiguation)'. The main text describes Cardiff as the capital and largest city of Wales, mentioning its population and historical significance. On the right side of the page, there is a vertical strip of images, including a cityscape and a stadium.

WIKIPEDIA  
The Free Encyclopedia

Main page  
Contents  
Featured content  
Current events  
Random article  
Donate

Interaction  
About Wikipedia  
Community portal  
Recent changes  
Contact Wikipedia  
Help

Toolbox  
Print/export  
Languages

## Cardiff

From Wikipedia, the free encyclopedia

For other uses, see [Cardiff \(disambiguation\)](#).

**Cardiff** (pronounced /ˈkɑːdɪf/ listen), Welsh: *Caerdydd* (*info*)) is the capital, largest city and most populous county of Wales. The city is Wales' chief commercial centre, the base for most national cultural and sporting institutions, the Welsh national media, and the seat of the National Assembly for Wales. According to recent estimates, the population of the unitary authority area is 324,800,<sup>[2]</sup> while the wider metropolitan area has a population of nearly 1.1 million, more than a third of the total Welsh population.<sup>[3]</sup> Cardiff is a significant tourism centre and the most popular visitor destination in Wales with 14.6 million visitors in 2009.<sup>[4]</sup>

The city of Cardiff is the county town of the historic county of Glamorgan (and later South Glamorgan). Cardiff is part of the Eurocities

City D

# Text and fonts

Font variables :

name/family; height; **weight**; *style*; decoration; **colour**

Use of many different named fonts can become messy

***What can the font variables be used to communicate?***

The collage consists of several overlapping screenshots of the BBC News website, demonstrating a variety of font families, weights, and styles. The top section shows the main navigation bar with links like 'News', 'Sport', 'Weather', 'iPlayer', 'TV', 'Radio', and 'More...'. Below this, there are multiple news stories with headlines, sub-headlines, and images. For example, one story features a large image of Steven Gerrard with the headline 'Gerrard offered new deal - Rodgers'. Another story features a large image of a man on a treadmill with the headline 'Paedophile doctor jailed for 22 years'. The layout also includes a 'Breaking News' section, a 'Latest Football' section, and a 'Features & Analysis' section. The bottom right corner shows a 'UK Cold Spots' and 'UK Hot Spots' table. The overall design is clean and professional, with a clear hierarchy of information.

**Font variables used in the screenshots:**

- Font family:** Various sans-serif fonts are used throughout the site, including a bold font for the main navigation bar and a lighter font for the body text.
- Font weight:** The use of bold text is prominent for headlines and section titles, while regular weight is used for body text.
- Font style:** The use of italics is seen in the 'What can the font variables be used to communicate?' text.
- Font decoration:** Underlines are used for the word 'variables' in the main title.
- Font colour:** The use of red text is seen in the 'What can the font variables be used to communicate?' text.

| UK Cold Spots     | UK Hot Spots             |
|-------------------|--------------------------|
| 1 Aviemore -2°C   | 1 Isles of Scill... 12°C |
| 2 Braemar -1°C    | 2 Bodmin 10°C            |
| 3 Dunfermline 1°C | 3 Abersoch 9°C           |
| 4 Kilmarnock 1°C  | 4 Kendal 8°C             |
| 5 Penrith 2°C     | 5 Middlesbrough 8°C      |

# Administrative information

- Useful data:
  - contact address
  - email address for feedback
  - date document last modified
  - person who maintains web site
  - the information may vary according to part of web site

Can use the `<address>` tag in HTML for this type of information

## Postal Address

Cardiff School of Computer Science & Informatics,  
Cardiff University,  
Queen's Buildings,  
5 The Parade, Roath,  
Cardiff CF24 3AA,  
UK

Tel: +44 (0)29 2087 4812

Fax: +44 (0)29 2087 4598

Email: [comsc-ug@cs.cardiff.ac.uk](mailto:comsc-ug@cs.cardiff.ac.uk)

Head of School: [Professor S. Hurley](#)

## Cardiff University Links

➔ [Travel directions.](#)

➔ [The University maps and location guide.](#)

This page was last modified on 20 November 2013, at 12:15.

Text is available under the [Creative Commons Attribution/Share-Alike License](#); additional terms may apply. See [Terms of Use](#) for details.

[Privacy policy](#) [About MediaWiki.org](#) [Disclaimers](#) [Developers](#) [Mobile view](#)