

Annex I. Key usability guidelines for academic web sites

Version 1.0

Design Process	Page Design	Text appearance	Writing web content
Accessibility	Navigation	Lists	Content organisation
Hardware	Scrolling	Data entry and forms	Search
The Homepage	Links	Graphics, images & multimedia	

Key

0:0 guideline number in [Research-Based Web Design & Usability Guidelines](#)

** extremely important for the success of the web site

* very important for the success of the web site

Design Process

- 1:1 ** [Set and state goals](#) for the site. Obtain consensus on the purpose and learning objectives before starting development.
- 1:2 ** [Use an iterative design approach](#): create and evaluate paper and software prototypes to obtain design feedback. See the SAP [Quick Guide to Creating Information-Oriented Web Sites](#).
- 1:3 ** [Evaluate websites before and after making changes](#) to determine if changes improved the usability of the site.
- 1:4 ** [Provide useful content](#) that is engaging, relevant, and appropriate to the audience.
- 1:5 * [Understand and meet users' expectations](#) by using familiar formatting and navigation schemes.
- 1:6 * [Establish user requirements](#): through surveys, interviews, focus groups, support lines, user groups, etc.
- 1:7 * [Use parallel design](#): Have several developers independently propose designs & use the best elements from each.
- 1:8 * [Consider many user interface issues](#), e.g. the users' experience and reason for visiting the site; usability results.
- 1:9 * [Focus on performance before preference](#): Make decisions about content, format, interaction & navigation before deciding colours and graphics.
- 1:10 * [Set usability goals](#) for success rates and task time, and user satisfaction and acceptance by users.
- 1:11 * [Select the right number of participants](#), e.g. early testing with 6 users from each distinctly different user group.

Accessibility

- 3:1 - [Comply with Disabilities Discrimination Act](#): this means implementing at least priority level 1 of the [W3C guidelines](#).
- 3.2 * [Design forms for users using assistive technology](#)
- 3.3 * [Provide text equivalents \(alt text\) for non-text elements](#) such as images, symbols and maps
- 3.4 ** [Do not use colour alone to convey information](#)
- 3:5 - [Provide equivalent text-only pages](#) if there is no other way to comply with accessibility requirements.

- 9:8 - [Use headings in the appropriate HTML order](#): to allow assistive technology to understand the hierarchy.
- 3.8 - [Enable users to skip repetitive navigation links](#) when using assistive technology
- 3.9 - [Provide frame titles](#) when frames are used.
- 3.10 - [Test any plug-ins and applets for accessibility](#)
- 3.12 - [Do not require style sheets](#): organise documents so they are readable without requiring an associated style sheet (CSS).

Design for commonly-used hardware and software

- 4:1 ** [Design for common browsers](#): Decide which browser types and versions to support.
- 4:3 * [Design for popular operating systems](#): For example, decide whether to support Macs.
- 4:4 * [Design for the user's typical connection speed](#). Restrict page size for dial-up users.
- 4:5 [Design for commonly used screen resolutions](#) (currently 800x600 upwards): [eliminate horizontal scrolling](#).

The Homepage

- 5:3 ** [Show all major options on the homepage](#) (such as topic areas and categories).
- 5:4 * [Enable access to the homepage](#) by providing a link to home on all other pages.
- 5:7 - [Communicate the website's purpose](#): What is this? What does it have? What can I do?

Page Design

- 6:1 ** [Set appropriate page lengths](#): Use shorter pages for navigation and pages that need to be quickly browsed. Use longer pages to facilitate uninterrupted reading and to make pages easier to print.
- 6:2 ** [Use frames when functions must remain accessible](#) to enable immediate changes to be made to information displayed in another frame.
- 6:3 ** [Establish level of importance](#) by putting important information at the top of the page and less important at the bottom.
- 2:4 * [Provide printing options](#): Format the page for easy printing by allowing it to adjust to the width of the window, or provide a link to a complete printable page.
- 9:5 - [Provide descriptive page titles](#) that are unique, concise and meaningful when used by bookmarks and search engines.
- [Avoid PDF for on-screen reading](#) Only use pdf format if the text is intended to be printed and read offline.

Navigation

- 7:1 ** [Provide feedback on the users's location](#) to let users know where they are: e.g. highlight the menu location and show navigation path as a breadcrumb.
- 7:2 * [Use a clickable 'List of Contents' on long pages](#): to provide a quick overview and enables users to easily reach specific items.
- 7:3 * [Do not create pages with no navigational options](#). Newly opened windows should have a prominent control to close the window.
- 7:4 * [Differentiate and group navigation elements](#). Break up pages into clearly defined areas.
- 7:5 * [Use descriptive tab labels](#): When using tabs for navigation, make sure the labels are self-explanatory.
- Provide a list of the contents of each part of the site as a list of links to the final information, in meaningful groups
- [Customise the 'page not found' error message](#) to offer suggested solutions.

Scrolling and Paging

- 8:1 ** [Eliminate horizontal scrolling](#).
- 8:2 - [Use longer, scrolling pages](#) when users are reading for comprehension.
- 8:4 - [Scroll fewer screenfuls](#): If users are looking for specific information, break up the information into shorter pages.

Links

- 10:1 **** [Provide consistent clickability cues](#)**: Make it obvious what is clickable: use a unique colour or style (e.g. underlining).
- 10:2 * [Avoid misleading cues to click](#): Ensure that items that are not clickable do not look clickable (e.g. avoid underlining or blue items).
- 10:3 * [Use text for links](#): images alone may not look clickable and can be difficult to understand .
- 10:4 * [Use meaningful link labels](#) so that users can find the right link first time. Do not use 'click here'.
- 10:5 * [Match the link names with the destination page](#) headings, so that users know they have reached the right page.
- 10:6 * [Ensure that embedded links are descriptive](#): The wording should help users scan the contents of a page.
- 10:7 * [Repeat important links](#): Ensure that important content can be accessed from more than one link.
- 10:8 * [Designate used links](#): Use colour changes to indicate to users when a link has been visited.
- 10:9 * [Link to related content](#): Use links to cross-reference other pages in the site with related content.
- 10:12 - [Indicate internal v. external links](#): Differentiate internal page links and external links from links to other pages in the site.
- 10:14 - [Clarify clickable regions of images](#): Ensure that the entire image is clickable or that the clickable areas are obvious.

Text Appearance

- 11.1 **** [Use black text on plain, high-contrast backgrounds](#)**
- 11.2 **** [Ensure visual consistency](#)** of website elements within and between web pages.
- 11:3 * [Format common items consistently](#) across pages (such as date or time).
- 11:4 * [Use at least 12-point font](#). Use relative, [not absolute font sizes](#).

Lists

- 12.1 * [Order elements to maximise user performance](#) (e.g. lists should read down columns, not across).
- 12.2 * [Display related items in lists](#) vertically, rather than as text in a paragraph.
- 12:3 * [Introduce each list](#): Provide an introductory heading (i.e. word or phrase) at the top of each list.
- 12:4 * [Format lists to ease scanning](#) by use of meaningful labels, effective background colours, borders and white spaces.
- 12:5 * [Start numbered items at one](#) rather than zero.
- 12:6 - [Place any important items at the top of a selection list](#), and the remainder alphabetically or numerically.

Data entry and forms

- 13:1 **** [Distinguish required and optional data entry fields](#)**.
- 13:2 **** [Detect data entry errors automatically](#)**.
- 13:3 **** [Minimize user data entry](#)**. Do not require users to enter the same information more than once.
- 13:4 **** [Label data entry fields clearly](#)**.
- 13:5 **** [Put labels close to data entry fields](#)**.
- 13:6 * [Label pushbuttons clearly](#).
- 13:7 * [Label data entry fields consistently](#) across pages.
- 13:8 * [Allow users to see their entered data](#) Create data entry fields that are large enough to show the data without scrolling.
- 13:9 * [Display default values](#) whenever a likely default choice can be defined
- 13:10 * [Use a minimum of two radio buttons](#): if necessary provide a separate choice labeled 'none'
- 13:11 - [Use radio buttons for mutually exclusive selections](#)
- 13:12 - [Use check boxes to enable multiple selections](#)
- 13:16 - [Do not make user-entered codes case sensitive](#)
- 13:17 - [Place the cursor in the first data entry field](#)
- 13:20 - [Ensure that double-clicking will not cause problems](#) (many users double-click when only one click is needed).
- 13:21 - [Do not limit viewable list box options](#): When using a list box, show as many items as possible.

13:23 - [Prioritise pushbuttons](#): Put the button that is used most frequently in the 1st position & make it the default when users press Enter.

13:24 - [Minimise use of the Shift key](#) for data entry .

Graphics, Images, and Multimedia

14:1 * [Use video, animation, and audio only](#) when they help to convey the website's message or other content.

14:2 * [Include the logo](#) of the organisation in a consistent place on every page.

14:3 * [Limit large images above the fold](#): Do not fill the entire first screenful with one if there are screenfuls of text information below the fold.

14:4 - [Limit the use of images](#) to when they are critical for the success of a website.

14:5 - [Label clickable images](#) (unless they are readily understood by typical users).

14:6 - [Ensure that images do not significantly slow page download](#) time, particularly for users with slow connections. Using the same graphic repeatedly saves time as browsers only download them once.

14:9 - [Use simple background images](#): Use background images sparingly, and avoid using images behind text

14:10 - [Include actual data values with graphical displays](#) of data when precise reading of the data is required.

Writing Web Content

15:1 * [Define acronyms and abbreviations](#): Do not use unfamiliar or undefined acronyms or abbreviations on websites.

15:2 * [Use abbreviations sparingly](#): Show complete words rather than abbreviations (except for well-known abbreviations).

15:3 * [Use familiar words](#): Avoid jargon.

15:4 * [Use mixed case with prose](#): Display continuous (prose) text using mixed upper- and lowercase letters.

15:6 - [Make first sentence descriptive](#): Include the primary theme of each paragraph in the first sentence.

15:7 - [Use active](#) rather than passive sentences for instructions

15:9 - [Limit the number of words in sentences](#), and the number of sentences in paragraphs.

Content Organisation

16:1 ** [Organize information clearly](#): Structure the site to be meaningful to the user (not the information providers)

16:2 ** [Put critical information near the top of the hierarchy of a website](#) to make it easy to find.

9:1 ** [Use clear labels for categories](#) of information that summarise the items within the category.

9:2 ** [Use unique headings that clearly describe](#) and differentiate the different categories of material.

2:1 ** [Display information in a format](#) and in units that are immediately useful and understandable.

2:5 * [Standardise task sequences](#) : Allow users to perform tasks in the same sequence and manner across similar conditions.

16:3 * [Facilitate scanning](#): Design navigation pages for scanning, not reading.

16:4 * [Group related elements](#): Group all related information and functions in order to decrease time spent searching or scanning.

16:5 * [Display only necessary information](#): Remove extraneous information to allow users to remain focused on the desired task .

16:6 * [Ensure that all necessary information is available and displayed](#) on the page where and when it is needed.

16:7 * [Format information for multiple audiences](#): Use multiple formats if the website has distinct audiences with different needs.

2:3 * [Provide assistance to users](#) through links to additional help, for example for first time users.

16:8 - [Design quantitative content for quick understanding](#) by use of tables and graphics .

Search

- 17:1 ** [Provide a search box in the same place on each page](#) of content-rich web sites
- 17:2 ** [Ensure usable search results](#) that give the information needed in a format that matches users' expectations.
- 17:3 ** [Allow simple searches](#): Structure the search engine to provide appropriate results for users who enter of one or two words.
- 17:4 * [Make upper- and lowercase search terms equivalent](#)
- 17:5 * [Design search engines to search the entire site](#), or clearly communicate which part of the site will be searched.
- 17.6 * [Design search around users' terms](#): Refine the search engine to respond to the words most frequently entered by users.
- Default search should work like Google (look for the phrase then individual words), or be labeled (e.g. 'phrase')
 - State how many results have been found
 - Display the search criteria on the results page, either as a separate page heading or display it in the search box
 - Ensure a search box is provided for repeat searches, both at the top and especially at the bottom of the page

Annex J. Key usability guidelines for online courses

Draft version 1.0

Meet user needs	Navigation	Graphics, images & multimedia	Online courses
Hardware and software	Links	Writing web content	Accessibility
Page titles and length	Text	Content organisation	

Key

0:0 guideline number in [Research-Based Web Design & Usability Guidelines](#)

** extremely important for the success of the web site

* very important for the success of the web site

Focus on meeting the users' needs

- 1:1 ** [Set and state goals](#) for the site. Obtain consensus on the purpose and learning objectives before starting development.
- 1:2 ** [Use an iterative design approach](#): create and evaluate paper and software prototypes to obtain design feedback. See the SAP [Quick Guide to Creating Information-Oriented Web Sites](#).

Design for commonly-used hardware and software

- 4:1 ** [Design for common browsers](#): Decide which browser types and versions to support
- 4:3 * [Design for popular operating systems](#): For example, decide whether to support Macs.
- 4:4 * [Design for the user's typical connection speed](#). Restrict page size for dial-up users.
- 4:5 - [Design for commonly used screen resolutions](#) (currently 800x600 upwards): [eliminate horizontal scrolling](#).

Page Design

- 6:1 ** [Set appropriate page lengths](#): Use shorter pages for navigation and pages that need to be quickly browsed. Use longer pages to facilitate uninterrupted reading and to make pages easier to print.
- 2:4 * [Provide printing options](#): Format the page for easy printing or provide a link to a complete printable page.
- 9:5 - [Provide descriptive page titles](#): Format the page for easy printing by allowing it to adjust to the width of the window, or provide a link to a complete printable page.

Navigation

- 5:3 ** [Show all major options on the course homepage](#) including a contents list of the topic areas.
- 7:1 ** [Provide feedback on the users' location](#) to let users know where they are: e.g. highlight the menu location and show navigation path as a breadcrumb.
- 7:2 * [Use a clickable 'List of Contents' on long pages](#): to provide a quick overview and enables users to easily reach specific items.
- 7:3 * [Do not create pages with no navigational options](#). Newly opened windows should have a prominent control to close the window.
 - [Use site maps](#) to help users understand the structure of the site.

Scrolling and Paging

- 8:1 ** [Eliminate horizontal scrolling](#).
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- 8:4 - [Scroll fewer screenfuls](#): If users are looking for specific information, break up the information into shorter pages.

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- 10:8 * [Designate used links](#): Use colour changes to indicate to users when a link has been visited.
- 10:12 - [Indicate internal v. external links](#): Differentiate internal page links and external links from links to other pages in the site.
 - Check linked sites for content and authenticity. Check for broken links.
 - On long pages put links at the end of each section and at the bottom to *return to the top*.
 - For a sequence of pages include *next* and *previous* links so that the pages can be accessed in logical order.
- 2:3 * [Provide assistance to users](#) through links to additional help, for example for first time users.

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- 11.1 ** [Use black text on plain, high-contrast backgrounds](#)
- 14:9 - [Use simple background images](#): Use background images sparingly, and avoid using images behind text
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- 9:2 ** [Use unique headings that clearly describe](#) and differentiate the different categories of material.
- 16:4 * [Group related elements](#): Group all related information and functions in order to decrease time spent searching or scanning.
- 16:6 * [Ensure that all necessary information is available and displayed](#) on the page where and when it is needed.
- 16:7 * [Format information for multiple audiences](#): Use multiple formats if the website has distinct audiences with different needs.
- 16:8 - [Design quantitative content for quick understanding](#) by use of tables and graphics .

Online courses

- 18a Support interruptions in workflow (e.g. to answer the phone, check on the kids) [D1]
- 18b Organise pages into a main entrance, main work pages and other auxiliary resources [D2]
- 18c Arrange information in chunks surrounded by some space [D2]
- 18d Ensure course pages can be printed [D2]
- 18e Arrange information in a non-threatening manner so that users are not overwhelmed [D3]
- 18f Use a fixed screen layout so that navigation information is at the same place on each screen [D3]
- 18g Use location indicators and progress reports to let users know where they are, where they need to go, and how long it will take them to get there (e.g. how many questions in this section) [D3]

Accessibility

- 3:1 - [Comply with Disabilities Discrimination Act](#): this means implementing at least priority level 1 of the [W3C guidelines](#).
- 3.2 * [Design forms for users using assistive technology](#)
- 3.3 * [Provide text equivalents \(alt text\) for non-text elements](#) such as images, symbols and maps
- 3.4 ** [Do not use colour alone to convey information](#)
- 3:5 - [Provide equivalent text-only pages](#) if there is no other way to comply with accessibility requirements.
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- 3.10 - [Test any plug-ins and applets for accessibility](#)
- 3.12 - [Do not require style sheets](#): organise documents so they are readable without requiring an associated style sheet (CSS).

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- [K6] UsabilityNet <http://www.usabilitynet.org>