

The IW:LEARN Web Guidelines

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Checklist of mandatory and recommended items for developing and maintaining a GEF IW project website

The purpose of this checklist is to provide GEF IW projects with guidance in the design of websites and their subsequent management.

M = mandatory items R = recommended items

TECHNICAL ISSUES

- (M) Webpages download/render within a reasonable time
- (M) Compatible with multiple browsers (including IE7+, Mozilla Firefox, Opera, Safari, Chrome, etc.)
- (M) There are no broken links
- (R) Syndication of project events (meetings, workshops, conferences, etc.) using web/RSS feeds
- (R) Syndication of project news using web/RSS feeds
- (R) Syndication of published documents using web/RSS feeds
- (R) Adopts W3C guidelines for accessibility
- (R) Allows functionality and collaborative website management (i.e., users can create content, not just the administrator)
- (R) Works on multiple screen resolutions (fluid design)
- (R) Inclusion of an online language translator

TIMELINESS

- (M) Include up-to-date contact details of key project staff
- (M) Regularly updated list and/or calendar of events (e.g., meetings, workshops, conferences)
- (M) Regular publication of project-related news
- (M) Regular release of electronic newsletter targeted at project stakeholders
- (R) Establish a schedule for content updating (e.g., Daily – news, calendar/list of events; Weekly – jobs, newsfeeds from project and partners; Monthly – newsletter, progress reports, contact details of project staff, etc.)
- (R) Perform regular link integrity checking and maintenance

CONTENT

Design and layout:

- (M) Logos of GEF, implementing and executing agencies prominently displayed
- (M) Main navigation is clearly visible in every page

- (M) Image sizes are optimized
- (R) A link to the GEF IW:LEARN website on the home page
- (M) Pages are clear and readable
- (R) Consistent design theme (style and colors)
- (R) Use of minimal Flash content and animated GIFs

Structure:

- (R) Inclusion of the following sections: About the Project; Documents Center; Calendar and/or List of Events; News, Media

Documents and data:

- (M) Publication of key documents, such as the Project Document, TDA, SAP, and Experience Notes, and other reporting tools for project results, outputs and outcomes.
- (R) Publication of datasets and associated metadata generated as project outputs

Text:

- (M) Good quality of writing (e.g., no grammatical errors, no typos)
- (M) Purpose of the website clearly stated on the homepage (e.g., mission statement, aim)
- (M) Homepage to display 'Last updated: (Date and time)' or similar wording, with a link to a list of updated content, for example, located in the footer section
- (M) Upload long documents as files (PDF, or MS Office files) instead of posting the entire content on a webpage
- (R) Provision of Multilingual content

Geographic data:

- (R) Inclusion of a map showing the project's area of interest.
- (R) Creation of metadata records for project-generated geographic datasets or maintenance of a separate online metadata catalogue where metadata can be harvested by IW:LEARN.

Navigation:

- (M) Website is easy to navigate (you know where you are in the site and how to get back to the homepage, e.g., uses breadcrumb trail)
- (M) Include a site map
- (R) Provide access/link to mandatory sections from every page

Other components:

- (M) Inclusion of a site-specific search engine (i.e., allows project site to be searched)
- (M) Contact information on every page (e.g., in footer)
- (M) Inclusion of a feedback form or a 'mailto:' link
- (R) Provision of Web 2.0 functionality (e.g., online forum, shared workspace, integration of existing social networking sites, etc.)

(R) Provision of video

(M) Assign keywords/meta tags to content to improve search engine discovery

TECHNICAL ISSUES

Webpages download/render within a reasonable time

(M) Webpages download/render within a reasonable time

Periodically test how long it takes for your web pages to load, especially if you have upgraded the CMS to a new version or made major revisions in the content of the page. Make sure that load times are still reasonable. Ensure that users are only downloading the required files, images, and scripts to render the page. Bear in mind that many people still do not have access to broadband internet connections. Don't include unnecessary JavaScript code on every page. Be selective.

Use the Firefox browser add-on, called the Firebug web developer tool¹, to check the size of web pages and their contents. Open Firebug, click on the 'Net' tab at the top menu, and then do a hard refresh of the browser (i.e., do not load content already cached in the browser); the latter can be achieved by clicking on Ctrl+R in Firefox, or F5 (Forced refresh using the Function keys).

¹ Firebug available online at <http://getfirebug.com/> [last accessed 8 April 2010]

Compatible with multiple browsers

(M) Compatible with multiple browsers

Be sure your website is compatible with the most commonly used web browsers, such as Internet Explorer (IE 7+), Mozilla FireFox, Opera, Chrome, and Safari.

Test web pages on different browsers. Web pages that look good in Internet Explorer may not look the same in Opera or Safari.

Different web browsers can interpret the same HTML differently. Every time you make changes to a web page, view that page in IE, Firefox, Opera, Netscape, and Chrome for computers running Microsoft Windows and in Safari, Firefox, Opera, Chrome on computers running Mac OSX, iPhones, iPads.

Also check the rendering of your website after upgrades of these browsers or the introduction of a new browser to make sure that your website is still compatible and that your web pages appear the way they should.

There are no broken links

(M) There are no broken links

Websites are not static, they must be maintained and frequently updated with new information in order to maintain a 'fresh' look. Furthermore, with more people involved in maintaining content, more opportunities arise for alterations in website structure that lead to dead or broken links (404 error pages that indicate that a particular web page is not available). The situation is worse with external links (which might change) since you have no control over what other people are doing on their websites.

Link checking software. Check your website for broken links regularly using a link checker and fix them in a timely manner (e.g., link checker: <http://validator.w3.org/checklink>). Alternatively, IW:LEARN can provide link checking reports for your site.

Managing file names. Use understandable, keyword-rich filenames. When content is replaced keep the same file name to avoid broken links.

User-friendly error pages. Provide user-friendly guidance to error pages associated with broken links.

Check web analytics for your website. In addition to **information useful** for improving website usability and improving search engine optimization, web logs and user statistics provide **useful information** about website problems. Broken links and hacking attempts may show up on these reports.

Syndication using web feeds

(R) Syndication of project events (meetings, workshops, conferences, etc.) using web/RSS feeds

(R) Syndication of project news using web/RSS feeds

(R) Syndication of published documents using web/RSS feeds

What is a web feed?

A web feed [RSS (Really Simple Syndication) or Atom] are formats for delivering changing web content to your own website or to someone else's website. Many news-related sites, weblogs, and other online publishers syndicate (i.e., disseminate) their content as a web feed to whoever subscribes to the feed.

Why are web feeds important?



A web feed allows you to automatically send notification of newly added information or changes in your website to others who subscribe to your feeds. For example, you might create a feed of all project press releases, project news, and project documents on your project website. IW:LEARN could then subscribe to your feed and automatically update its website with links to your news. Conversely, you could update your website with information and news from other websites or aggregations of websites automatically. For example, you might subscribe to an RSS feed of news about GEF, local news about water and the environment, and new scientific reports on technical topics relevant to your project. This feature automatically freshens up the content of your website helps encourage visitors to frequently check the site for new information.

Web feeds

Web feeds are used to publish headlines and descriptions of frequently changing information, such as blog entries, news and web content that is published once and viewed by many different subscribers. The feed may have the full text or a summary of a document and includes metadata on the publication, its date of publication, and its authorship. Software known for example as 'RSS readers', 'feed readers' and 'news aggregators' collect information from web feeds of interest in a central location where the content can be read.

The user subscribes to a web feed by entering the feed's URI (Uniform Resource Identifier) into a feed reader or by clicking an RSS/Atom icon on a website that initiates the subscription process. The feed reader checks the user's subscribed feeds regularly for new content, downloads any updates that it finds, and provides a user interface to monitor and read the feeds.

The number of sites offering web feeds is growing rapidly. All common blogging and web publishing platforms come equipped with some form of feed functionality. Common formats are RSS 2.0 and Atom, others include RSS 0.9, and RSS 1.0.

How to create a web feed

Web feeds can be established directly in XML using a text editor or by using feed creation software.

The Plone-based IW:LEARN Toolkit offers syndication to keep track of news, events and changes made to folders. You can decide for each folder whether or not you want to offer a web feed announcing the folder's current items. Plone can also syndicate search results; the feed is the continually updated list of items in the search list.

Adopts W3C guidelines for accessibility

(R) Adopts W3C guidelines for accessibility

What is Accessibility?

An accessible website allows users who are physically disabled to access the website with a minimum of inconvenience. The World Wide Web Consortium (W3C) created the Web Accessibility Initiative (WAI) ¹ in 1999 to address accessibility issues and to promote a set of standards that will educate developers in building websites that can accommodate common disabilities.

The W3C recently issued draft Web Content Accessibility Guidelines (WCAG) 2.0² which provides a set of 12 guidelines that make Web content more accessible to people with a wide range of disabilities. The guidelines are organized under four principles. Under each principle are a set of guidelines. Each set has **testable** success criteria, three levels of conformance for different disability groups and situations, and suggestions on how to implement the guidelines along with examples.

An objective of the United Nations' Department of Public Information is to comply with the Web Content Accessibility guidelines of the W3C for all UN websites. They have a set of guidelines available for Making Accessible Websites for the United Nations.³

Below are some common ways to make a website accessible.

- * Image alternatives – Provide text alternatives for graphic content so that it can be changed into other forms people need, such as large print, Braille, speech, symbols or simpler language.
- * Video and Audio alternatives – Provide alternatives for pre-recorded audio and video by using transcripts, captions, and file descriptions.
- * Readability – Makes it easier for users to see and hear content by separating foreground from background using high-contrast colors between background and text and by resizing text.
- * Keyboard – All functionality of the content should be able to operate via a keyboard interface without requiring specific timings for individual keystrokes.

Accessibility policy

It is IW:LEARN's policy that its websites shall be clear and simple for everybody to use. All project websites should conform to specifications laid out by the W3C. Use of these standards provides a solid foundation for website accessibility. Similarly, it is the policy of the UN that its websites address accessibility guidelines.³

¹ Web Accessibility Initiative. Available online at www.w3c.org/WAI/. [Accessed 31 July 2009].

² Web Accessibility Guidelines. Available online at www.w3.org/WAI/intro/wcag.php. [Accessed 9 August 2009].

³ UN, Department of Communications (2009). Making Accessible Websites for the United Nations. Available online at www.un.org/webaccessibility/guidelines.shtml. [Accessed 6 September 2009].

Allows functionality and collaborative website management

(R) Allows functionality and collaborative website management (i.e., users can create content, not just the administrator)

Provide the functionality for authorized users to create, add, and edit website content by logging onto the website without the intervention of the webmaster.

Today, there are many content management systems (CMS) that allow users to create and apply web page templates; create, edit, review, index, search, and publish content; extend a site's functionality by adding program modules (plug-ins); manage the workflow of documents; and facilitate collaboration among team members maintaining the site even though they may be located in different geographic locations.

IW:LEARN has produced a [Website Toolkit](#) based on Plone, an open-source (free) CMS, that is well-maintained, widely used, and readily available. The Toolkit was designed to allow project personnel to create, update, and manage a project website with little or no knowledge of information and computer technology (ICT). The Toolkit enables quick creation of a project website, interactive chats and forums, news feeds, intranet/workspaces, photo/video galleries. Website usage statistics can also be collected.

IW:LEARN fosters the development and deployment of web-based content management systems, collaboration tools, and project websites at reasonable costs. The software includes web-based GIS/metadata functionality integrated into the Website Toolkit. IW:LEARN organizes workshops and online training in the use of these tools and also provides help in building and hosting project websites.

Works on multiple screen resolutions

(R) Works on multiple screen resolutions (fluid design)

Flexible layout

Use a flexible layout (fluid design) that can accommodate common sizes of monitor screens.

Page scrolling

Use vertical scrolling as necessary, but do not use horizontal scrolling at a screen size of 1024 x 768 pixels. Place the most important elements above the fold (i.e., within the first 578 pixels). Do not use white space between what the user sees above the fold and below.

The user needs visual clues to indicate that the web page continues further down.

Graphic resolution

Graphics should fit on the screen. Use only the resolution that you need for screen viewing.

Inclusion of an online language translator

(R) Inclusion of an online language translator

Providing an online translation tool to allow visitors to select their preferred language is highly desirable when the site is in a language other than English.

IW:LEARN's machine language translation tool uses Google's translate functionality, which is implemented in www.iwlearn.net and the Website Toolkit.

Also refer to the Website Guidelines section on Multilingual content.

TIMELINESS

Include up-to-date contact details of key project staff

(M) Include up-to-date contact details of key project staff

In the About Us or Contact Us page, include an up-to-date list of key project staff and their contact details.

Regularly updated list and/or calendar of events

(M) Regularly updated list and/or calendar of events (e.g., meetings, workshops, conferences)

Include a calendar or events list of project-related activities and share it via web/RSS feed.

Maintain and frequently update the calendar of project-related events such as meetings, workshops, and conferences (at least once a month).

Regular publication of project-related news

(M) Regular publication of project-related news

Publish project-related news frequently (at least once a month) and share it via web/RSS feed.

To attract media coverage, include a 'Press Room' or 'News Room' link on the home page.

Regular release of an electronic newsletter targeted at project stakeholders

(M) Regular release of electronic newsletter targeted at project stakeholders

Regularly post an electronic newsletter that is targeted for the project stakeholders and partners about events, progress, and issues. This should be done at least every three months. Archive past issues of newsletters on the website.

Establish a schedule for content updating

(R) Establish a schedule for content updating (e.g., Daily – news, calendar/list of events; Weekly – jobs, newsfeeds from project and partners; Monthly – newsletter,

progress reports, contact details of project staff, etc.)

There are many items on your website that potentially may get outdated or become obsolete. Spend some time to make an inventory of such items and their location on the site. These may include:

- Logos of major participants in your project;
- Contact details of key project staff;
- Calendar/list of upcoming events;
- News items;
- Project documents and reports that may have been changed or updated;
- New web feeds from other projects, social networking websites and partner agencies; and
- Job vacancies, especially announcements that have expired or that have been filled.

Perform regular link integrity checking and maintenance

(R) Perform regular link integrity checking and maintenance

Websites are not static. They must be maintained and frequently updated with new information in order to maintain a 'fresh' look. User feedback, error corrections, repairs to broken links, and interpretation of analytical data about web usage are opportunities to improve your website design and structure and to adopt new web technology.

The more people involved in maintaining content, the more opportunities arise for alterations in website structure that sometimes lead to dead links or broken links (404 error pages). External links provide another situation for broken links since you have no control over the other websites or web pages that linked.

The integrity of links should be checked regularly. Several tools are available to help you review the integrity of hyperlinks. IW:LEARN also offers a service for checking link integrity.

CONTENT: Design and Layout

Logos of GEF, implementing and executing agencies prominently displayed

(M) Logos of GEF, implementing and executing agencies prominently displayed

Include the logos of partner organizations in a prominent position within the homepage.

Main navigation is clearly visible in every page

(M) Main navigation is clearly visible in every page

Good site navigation provides a clear path to information with lots of signposts along the way.

Make sure you provide clear, consistent paths to the major components of the project website. Do not confuse site visitors by having too many choices on the home page or on major content pages. On large sites, consider creating a unique identity for each major topic. Provide landmarks to keep the user oriented during browsing. Most importantly, every web page on the site must have a link back to the home page.

The IW:LEARN portal and Toolkit website have clearly visible navigation situated in the left column. In fact, it is clearly labeled "Navigation" (though this is not required and you can clearly see the levels of content). In addition, each layout uses color to help illustrate the hierarchy of the content more effectively.

Image sizes are optimized

(M) Image sizes are optimized

Use the smallest file possible that can still provide reasonable resolution. Don't squeeze a large image file into a small space. The large image will take longer to download and will not improve the quality of the image viewed on the web page. Consider using a low resolution image with the option of downloading a higher resolution image if more detail is desired.

Image sizes

Web page graphics image (IMG) tags should include height and width attributes. These tags tell the browser how much space to leave for the graphics. However, if the tag specifies a thumbnail size image and the image is large (1000 x 1000 pixels) then what should have been a one second download may take a minute or more. The best way to approach this problem is to resize all your images to match the size at which they will be displayed. Software, such as Adobe Photoshop, is often used to resize and optimize

images for the Web. Make sure that you use JPG, GIF, and PNG file formats and take into consideration the pros and cons of each format.

Also, use the ALT attribute for an alternative text description of the image or what it represents. If the user loads the website with the graphic loading turned off in the Web browser, the alternative text will appear in place of the image. The goal is to make the whole page comprehensible to a user who cannot see the images. Interface images like icons and buttons do not need alternative text descriptions.

Image resolution and colorspace

Web images are 72 dots per inch (dpi) because computer monitors are generally 72 dpi displays. Web images are set up in RGB format which is presented as various tones of red, green, and blue (RGB) light.

It is usually a good idea to use the smallest size that fulfills the image's purpose on the page. Remember to consider users that do not have fast Internet connections. Moreover, more people access web content on mobile devices.

A link to the GEF IW:LEARN website on the home page

(R) A link to the GEF IW:LEARN website on the home page

Ideally the GEF IW:LEARN logo with a hyperlink to www.iwlearn.net should be included with other partner logos (for example , see [here](#)), or displayed somewhere else on the homepage. A copy of the GEF IW:LEARN logo can be [downloaded here](#).

Pages are clear and readable

(M) Pages are clear and readable

Complex diagrams or illustrations, such as maps or posters, may best be created as vector graphics with specialized software, such as Adobe Illustrator, and then converted to a raster format such as Portable Network Graphics (PNG) for the Web. Such images are easy to modify, can be resized without loss of quality, and can be printed as a high-resolution copy.

The choice of font, type size, line length and adjustments of the distance between groups of letters (tracking) and between pairs of letters (kerning) dramatically affect the legibility and readability of text whether on printed pages or on computer screens. Legibility incorporates both the perception of the text words, white space around the text, and how easily one can comprehend the content. Readability refers to how easily

the text can be understood. Readability chiefly involves grammar, word choice, and sentence structure. Appropriate choices of fonts for the headings and body text, type size, line length (column width), the contrast between text color and background color, and white space surrounding the text all work to improve legibility.

Contrast. Avoid dull pages with little contrast as well as pages with too much contrast. On the other hand, there must be enough contrast between text and backgrounds to maximize the legibility of the text. White or light-colored text on a dark-colored background is harder to read than dark type on a light background. This is especially true if the page gets printed (by either a colored or a black & white printer).

Consistent design theme (style and colors)

(R) Consistent design theme (style and colors)

Each page should use the same design and color scheme. In some cases, you may be able to customize a page with a color scheme but it should not detract from the main theme.

The art of designing and laying out a website is a discipline of its own. Reading a good design book, seeking out examples of designs that you and your colleagues find attractive and appropriate for your content, and paying attention to the design details will give you the tools to make a great website. As a starting point, use the theme and CSS templates that come with the IW:LEARN Web Toolkit (see screenshot below).

Examples of other Toolkit site themes can be found at <http://iwlearn.net/websitetoolkit/users/userscommunity>.

Use of minimal Flash content and animated GIFs

(R) Use of minimal Flash content and animated GIFs

Animation

Do not use blinking or moving (animated) page elements. It is distracting, unless it directly enhances understanding content. Also, it is generally associated with advertising in people's minds.

Animation using GIF images can be eye catching but their use is rarely justified on a website. The dominant format for displaying animated vector graphics is Adobe's Small Web Format (SWF).

CONTENT: Structure

Inclusion of the following sections: About the Project; Documents Center; Calendar and/or List of Events; News, Media

(M) Inclusion of the following sections: About the Project; Documents Center; Calendar and/or List of Events; News

About the Project

'About Us' refers to details about the project — its full name, purpose, objectives, history, and the names of sponsoring organizations. Public relations contact information should be provided for journalists. The About Us menu link is usually in the upper left corner of the home page. The About Us page will have more detail than the contact information in the footer of all pages on the website or the Contact Us page.

Documents Center

The project library or 'documents center' holds all project reports, publications, meeting reports, images (photo galleries), videos, maps, and datasets. Throughout the programming, implementation, and evaluation stages of each project, various reports are produced that should be part of the project library. The actual steps that make up the project cycle of a GEF IW project depend upon whether the project is a Full Size Project (FSP – over \$1 million), a Medium Size Project (MSP – up to a \$1 million), or an Enabling Activity (EA).

To a certain extent, the document-type taxonomy reflects the user groups for various types of documents. The Administrative and Organization categories are for those documents required for program or project management purposes. These are not likely to be of interest to the general public. Scientific, Technical & Reference Documents are those of interest to scientists, engineers, students, and others working in the water resources and environmental sciences. The Outreach & Public Education Documents and the Events-related Documents categories are for documents most likely to be of interest to the general public and the news media.

Calendar and/or List of Events

Maintain and frequently update a calendar of project-related events such as meetings,

workshops, and conferences at least once a month. Try to provide documents on the website that follows up events. Using the Events Calendar to find these documents would provide an innovative means of accessing them. Be sure to delete or archive old content. Search engines such as Google may index and point to obsolete information if these are not removed. To attract media coverage, place a 'Press Room' or 'News Room' link on the home page.

News

Publish project-related news at least once a month and share it via RSS. News refers to press releases and news stories about the project, partner activities, and articles of interest to the project user community from other sources (project staff and partners, other GEF IW projects addressing similar issues).

Summaries of news stories should be written specifically for the media:

- o Provide the maximum amount of information in the fewest words.
- o Show the date prominently on the full story.
- o Include news from partner organizations.

CONTENT: Documents and Data

(M) Publication of key documents, such as the Project Document, TDA, SAP, and Experience Notes, and other reporting tools for project results, outputs and outcomes.

(R) Publication of datasets and associated metadata generated as project outputs

CONTENT: Text

Good quality of writing

(M) Good quality of writing (e.g., no grammatical and typographical errors)

Even though much of an IW project's website content will be reports and documents, other pages will also have to have quite a bit of text. Writing for the Web is different from writing for a journal or a technical publication.

Text must be brief, succinct, and structured to facilitate reading. For example, project descriptions might include the title, objectives, accomplishments, lessons learned, and references. When using appropriate subheadings, this modular structure of content facilitates scanning because site visitors can anticipate where in the text they might, for example, find lessons learned when scanning a number of project descriptions.

In composing text for the Web, writers should follow the journalistic principle of putting

the most important information first where it will be seen and remembered. This provides a context for the supporting information that follows. In traditional newspaper writing, the basic information required in an article is: Who, What, When, Where, Why and How? [known as the 5 Ws (and one H)].

Text should be copyedited and free from typographical and grammatical errors. Do not rely on your word processing software's spell checking and grammar checking tools for this. When in doubt, consult a dictionary or a publication style manual such as The Oxford Style Manual or The Chicago Manual of Style.

Purpose of the website clearly stated on home page

(M) Purpose of the website clearly stated on home page (e.g., mission statement, aim)

When visitors arrive at a website, they bring with them certain expectations, based on their experiences with other websites, as to how your website will work. For example, they expect the home page to tell them the purpose of your website and what kinds of information are on the content pages. Furthermore, your home page will identify a number of paths that visitors may take to find that information by using menu bars, hyperlinks and other aids to searching.

Homepage to display 'Last time site updated' or similar wording

(M) Homepage to display 'Last updated: (Date and time)' or similar wording, with a link to a list of updated content, ideally located in the footer section

Many website designers recommend that the web page footer area at the bottom of the page provide a variety of information about the organization responsible for the website and its contact information. They also recommend that a display of the date the web page was last updated. Also valuable is a link to the list of content on the page that was added or updated. As an aid to website management, especially on a site where a number of different people are responsible for updating content, consider dating each page when it is updated. This way, you, as site administrator can immediately see what has and has not been done.

Upload long documents as PDFs or MS Office files

(M) Upload long documents as files (PDF, or MS Office files) instead of posting the entire content on a webpage

PDF has become the *de facto* choice for cross-platform portability of many types of information resources that may be downloaded from the Internet. UNEP's Regional Seas website makes extensive use of PDF files for the Regional Seas Reports and Studies series. Similarly, many of the documents on the IW:LEARN Web site are PDF files.

Multilingual content

(R) Provision of multilingual content

When possible, projects sites should provide useful language translations of content for stakeholders.

The IWLEARN Toolkit allows users to create multilingual sites, where human-translated content can be readily toggled between different languages.

Additionally, a link to an online translation tool (e.g., Google translate), which allows visitors to select their preferred language, is highly desirable and user-friendly when the rest of the site is in a language other than English. Such a tool is incorporated into the IW:LEARN's Toolkit.

CONTENT: Geographic data

Inclusion of a map showing the project's area of interest

(R) Inclusion of a map showing the project's area of interest

Include a map showing the project area.

To provide a more interactive experience, you might consider creating a Google KML/KMZ layer, for example, showing the location of demonstration sites in the region. Google markers identifying the location of demonstration sites could provide access to key information.

Creation of metadata records for project-generated geographic datasets

(R) Creation of metadata records for project-generated geographic datasets or maintenance of a separate online metadata catalogue where metadata can be harvested by IW:LEARN.

A note on *metadata*. Metadata makes your information easier to find on the Web. Metadata ranges from simple keywords describing a report, to descriptions of the attributes of a scientific database, to the suite of information that describes a data layer in a Geographic Information System (GIS). Standards have been developed for applying metadata to various kinds of information.

CONTENT: Navigation

Website is easy to navigate

(M) Website is easy to navigate (you know where you are in the site and how to get back to the homepage, e.g., uses breadcrumb trail)

Websites must have clearly visible navigation. For example, in IW:LEARN's Toolkit sites, "Navigation" is clearly labeled (though this is not required).

Design for your user

Think like a user. Imagine yourself wanting to find information. What makes sense to you? What would help you find information more easily and quickly? Try to anticipate how a user who has never seen your website will view the information. During website development, get some users to test your user interface and give you feedback.

Placement of navigation aids

Keep in mind people's reading habits. For English- and most European-language websites, text is read left to right and from top to bottom. Therefore, it makes sense for secondary navigation to be placed on the left side in a 2- or 3-column page layout. Eye-tracking studies have shown that the eye tends to concentrate on the upper left-hand part of the page. The eye reads the first few words of the top heading, and then scans down the left-hand margin of the text column for other important words in the subheading and page links ("F" pattern). Similarly, most users expect specific types of information to be located in certain places. These expectations should be given great weight in the design of web pages unless there is an overriding technical reason not to do so.

Orientation aids

Breadcrumb bars. A breadcrumb bar on each web page helps users keep track of where they are within a particular website. Breadcrumbs are links that provide a trail back to the home page. Usually breadcrumb bars are near the top of each page below the banner or other header information.

Landmarks. Some designers use landmarks to assist in path finding. For example, landmarks can be colorful photos or images relevant to the topic on the page. Thus, should the user unexpectedly link back to the page, the image would immediately identify the page as one already visited. It is extremely important that landmark images be static and always be in the same location on each page. Image slide shows are useless as landmarks and should be obviously be separated.

Color. The background color of breadcrumb bars, menu bars, or other design elements might be used to signify that the user is in a particular topic area. For example, the wetlands section of an IW project site might have green navigation bars, and the water section might have blue bars.

Include a site map

(M) Include a site map

Another important feature to help users find their way around your website is to have a site map. Typically the site map is a page with a list of links in a structured format, much like a detailed table of contents of a book. Each entry will take the user to the indicated page or section.

A similar site map coded in XML will improve the search engine optimization of the website by enabling automated web crawlers to find all your recently modified pages. IW:LEARN Toolkits all integrate XML coded site maps for search engine optimization in Google.

Provide access/link to mandatory sections from every page

(R) Provide access/link to mandatory sections from every page

Make sure you provide clear, consistent paths to the major components of the project website. Do not confuse site visitors by having too many choices on the home page or

on major content pages. On large sites, consider creating a unique identity for each major topic. Provide landmarks to keep the user oriented. **Most importantly, every web page on the site must have a link back to the home page.**

CONTENT: Other components

Inclusion of a site-specific search engine

(M) Inclusion of a site-specific search engine (i.e., allows project site to be searched)

The search engine allows the discovery of information within the website.

Make the site's search box visible and easy to find. The input box should be big enough to enter and edit queries (30 characters). Place the search button (e.g., labeled 'Search' or 'Go') to the right of the search box. Optionally, provide a link to 'advanced search' and search tips, and advanced search on the page of search results.

Contact information on every page

(M) Contact information on every page (e.g., in footer)

Each page should indicate the physical address, contact telephone, fax number, and email address, usually in the footer of each web page, or a link to a Contacts page.

Inclusion of a feedback form

(M) Inclusion of a feedback form or a 'mailto:' link

Feedback from your website's users is important. The form should be readily accessible from any page in the site. The form may also optionally request useful user information such as their position and organization.

Whenever the structure of your website is altered or you introduce new technology or new design elements, you should re-test the site and seek input and feedback from users.

Feedback forms are usually found on the 'Contact Us' page.

Provision of Web 2.0 functionality

(R) Provision of Web 2.0 functionality (e.g., online forum, shared workspace, integration of existing social networking sites, etc.)

People increasingly use the Internet to communicate, often using a combination of mobile devices and computers. Twitter, for example is increasingly being used to announce the availability of reports, news, and events, such as earthquakes. However, these technologies cannot be used without some understanding of their function and purpose. While it is up to individual website administrators on how best to implement the available technologies and techniques, it is up to the project manager to ensure that these investments in website technology fully support the goals of their project. It is worthwhile for both managers and website developers to learn about and discuss the application of Web 2.0 tools and technologies with their IW projects.

In addition to social networking websites, a variety of Web 2.0 tools facilitate communication between groups and individuals. By keeping abreast of new developments in the area of social networking, you will be able to decide how best to connect your project website with social networking websites and which Web 2.0 tools to use to support your project objectives.

IW:LEARN strives to keep up to date with software development, which changes rapidly with each new innovation. These include a Community Platform offering online workspaces for GEF IW projects.

Provision of video

(R) Provision of video

Video sharing service. Perhaps the easiest and most user friendly way to view videos is to upload them to a video sharing service, such as YouTube or Vimeo. YouTube takes care of the file conversion by accepting many video formats including: WMV, AVI, MOV, and FLV. The advantage of using YouTube is that you do not have to worry about converting the movie format yourself and you do not host the video or worry about bandwidth charges. Users may then click and play the video on your website, through embed links, even though the video is stored on YouTube. YouTube limits uploaded videos to 2 GB or 15 minutes in length.

Inserting videos into websites based on IW:LEARN's Toolkit is straightforward. Upload the video to YouTube, then copy the docid from Youtube (e.g. -1645948007344467936 for this particular video - <http://video.google.com/googleplayer.swf?docId=-1645948007344467936>), then add Google video content in the Toolkit and insert the latter code into the 'docId' field of Google video content (edit tab).

How to upload YouTube videos:

<http://www.google.com/support/youtube/bin/answer.py?hl=en&answer=57924>

Videos can be an important form of visual communication with users and can provide them with a sense of environmental ambience that the written word cannot always do. For example, the experience of watching a speech by a high-ranking policymaker and reading the speech are quite different. The video will show body language and inflection of speech that often reveals more information than the text itself. Videos also can enhance appreciation of the seriousness of an issue, such as water scarcity or lack of sanitation, in a way that words cannot impart.

Popular formats for Windows-based PCs are Windows Media Viewer (WMV) and Audio Video Interleave (AVI) because the Windows Media Player that is built into the Windows operating system supports them. For Macintosh computers, the QuickTime Movie format (MOV) is a good choice because Apple's QuickTime Player supports this format. A Windows version of QuickTime is also available. The various formats' advantages and disadvantages usually involve image quality and file size. If one is not using an existing video sharing service, and because a variety of video formats are available, it is good practice to make a video file available in a number of common formats for downloading by the user.

Viewing videos on the web browser. An alternative to downloading videos to be viewed offline is to watch them through the Web browser. The Adobe Flash Video (FLV) format may be used on most browsers by downloading a small, free Adobe Flash Player plug-in.

Digital video consists of a sequence of photographic images shown at about 30 frames (images) per second (fps). Full resolution video and audio utilizes enormous amounts of data storage, making it impractical, at least for the moment, to use on websites. It is possible to stream video continuously in real time to the desktop but this requires significant data processing power and bandwidth to work smoothly. To be practical, a video clip is usually is compressed, according to a variety of different algorithms, and the audio track is downsampled and reduced from stereophonic to monophonic sound. Finally, the video is shown at 15 fps, giving the image a slightly jerky look.

Assign keywords/meta tags to content to improve search engine discovery

(M) Assign keywords/meta tags to content to improve search engine discovery

Search engine optimization requires designing a website's text and HTML tags in ways that help Web search engines find your site. In the corporate world, the goal is often to have the company website appear among the top few links on the search engine's results page. Hopefully, this will also happen for your website if you use metadata properly.

Keywords can be easily added to content in websites based on IW:LEARN's Toolkit to improve their discoverability in Google and other search engines.