



Digitising Content Together

**Ministerial NETwoRk for Valorising Activities in digitisation**

# WAI Initiative on accessibility



# Quality of web site

The criteria for a quality cultural web communication are based on two principles milestone:

- Accessibility (WCAG/W3C)
- Usability (ISO 9241-11) basic principles

The key concept of quality web site means to pay attention to the users and their requirements.



# Quality: definitions

## Usability:

“The capability of the software product to enable specified users to achieve specified goals with effectiveness, productivity, safety and satisfaction in specified contexts of use.”

(ISO/IEC 9126-1:1992)



# Quality: definitions

## Accessibility:

“A Web site is considered to be accessible when the informational content, navigational modes and all the interactive features present are accessible to all users, regardless of disabilities and independently of technology used to access the site and of the context in which they are working whilst accessing the site”.

(ISO TS 16071:2002)



# Quality: definitions

## Accessibility:

“The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect”.

**Tim Barners Lee, W3C Director and inventor of the World Wide Web**

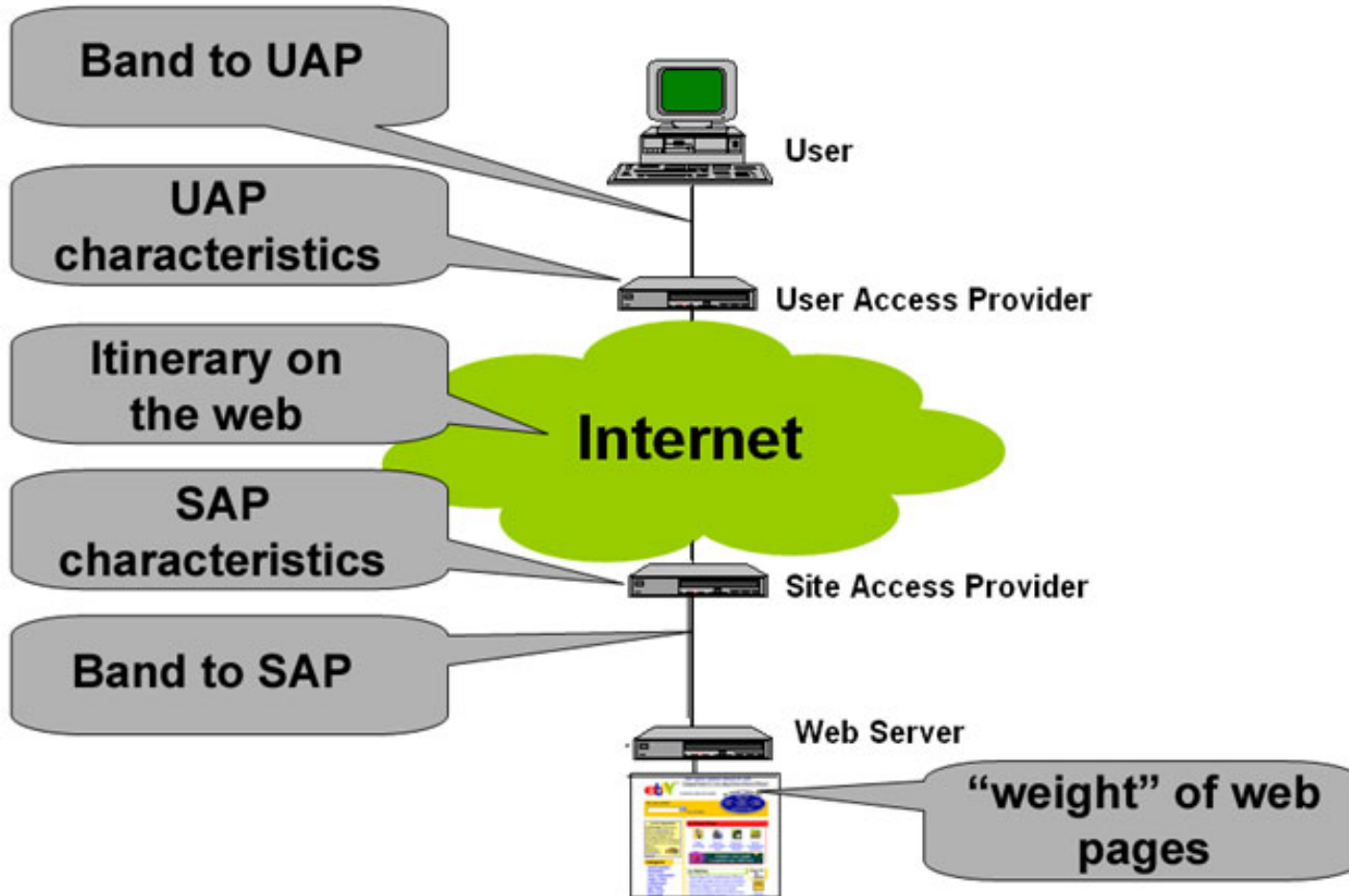


# Dimension of accessibility

- Connecting time
- Availability
- Compatibility of browser
- Accessibility of disabilities



# Elements of connection





## Context of users

Many users may be operating in contexts very different from your own:

- They may not be able to see, hear, move
- They may have difficulty reading or comprehending text.
- They may not have or be able to use a keyboard or mouse.
- They may have a text-only screen, a small screen, or a slow Internet connection.
- They may not speak or understand fluently the language in which the document is written.





# Context of users

- They may be in a situation where their eyes, ears, or hands are busy or interfered with (e.g., driving to work, working in a loud environment, etc.).
- They may have an early version of a browser, a different browser entirely, a voice browser, or a different operating system.

Content developers must consider these different situations during page design.



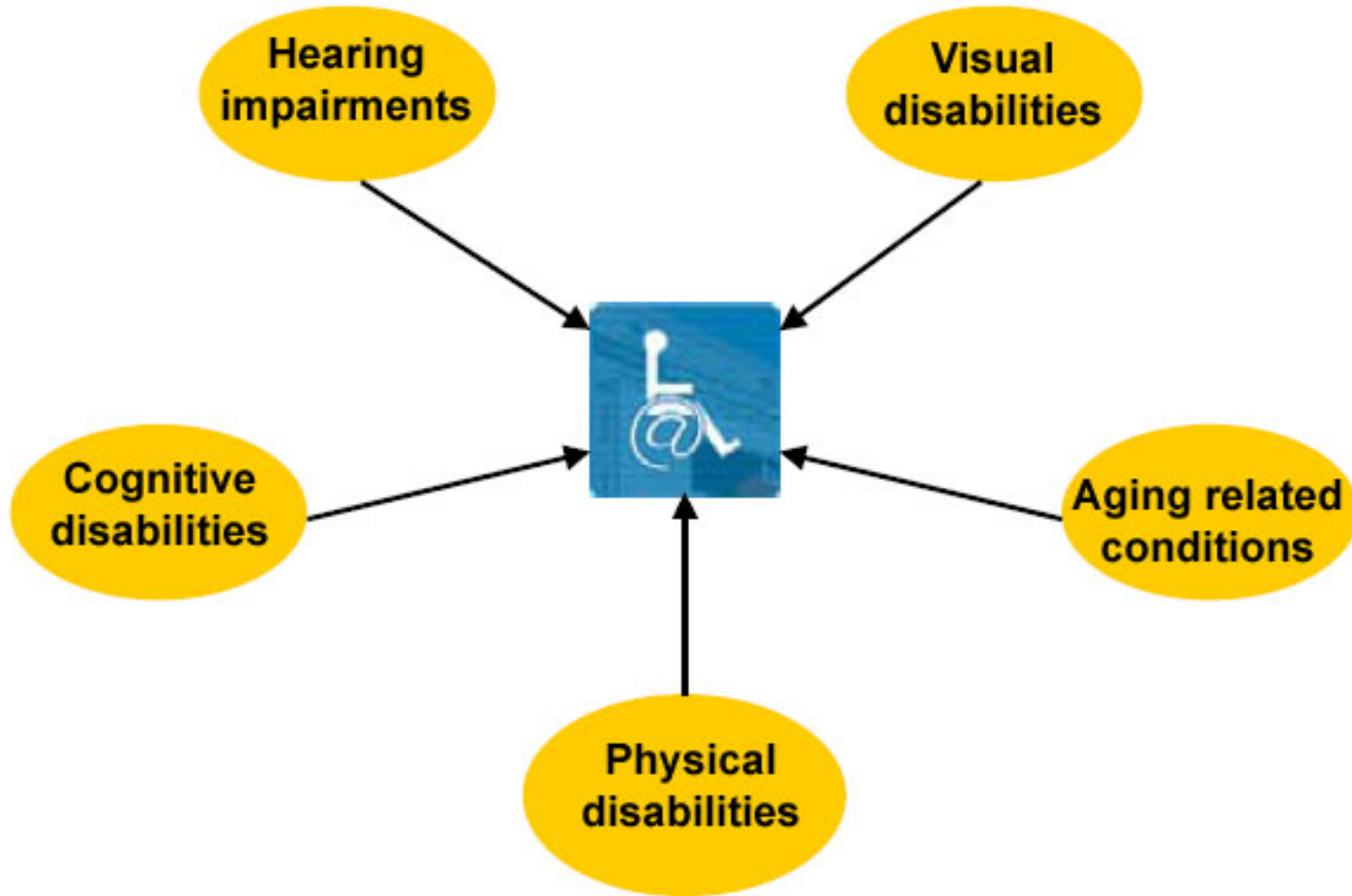
# Definition of disability

The WHO World Health Organisation in 2001:

- refers to “human functions” in general and not simply to disability.
- Moves away from the consequences of a “dysfunction” to components of “health”, grouping them together under the heading of “health domain”



# Different disabilities





## How do disabled people use the Web?

Through “enabling” technology. This can be hardware or software which:

- effect “equivalent” conversion of the information from one sense organ to another. Some examples are:
  - from the computer monitor (sight) to touch (Braille bar for visually-impaired users),
  - from the computer monitor (sight) to sound (vocal synthesis for visually-impaired users),
  - from sound (audio documents) to sight (text documents) (vocal recognition for motor-disabled and deaf users);



# How do disabled people use the Web?

- permit different ways of using certain tools, for

example:

special mouse (for motor-disabled);

special keyboard (for motor-disabled);

compensate for disability of a sensory faculty, for example:

enlarging the text on the computer monitor (for the visually impaired)



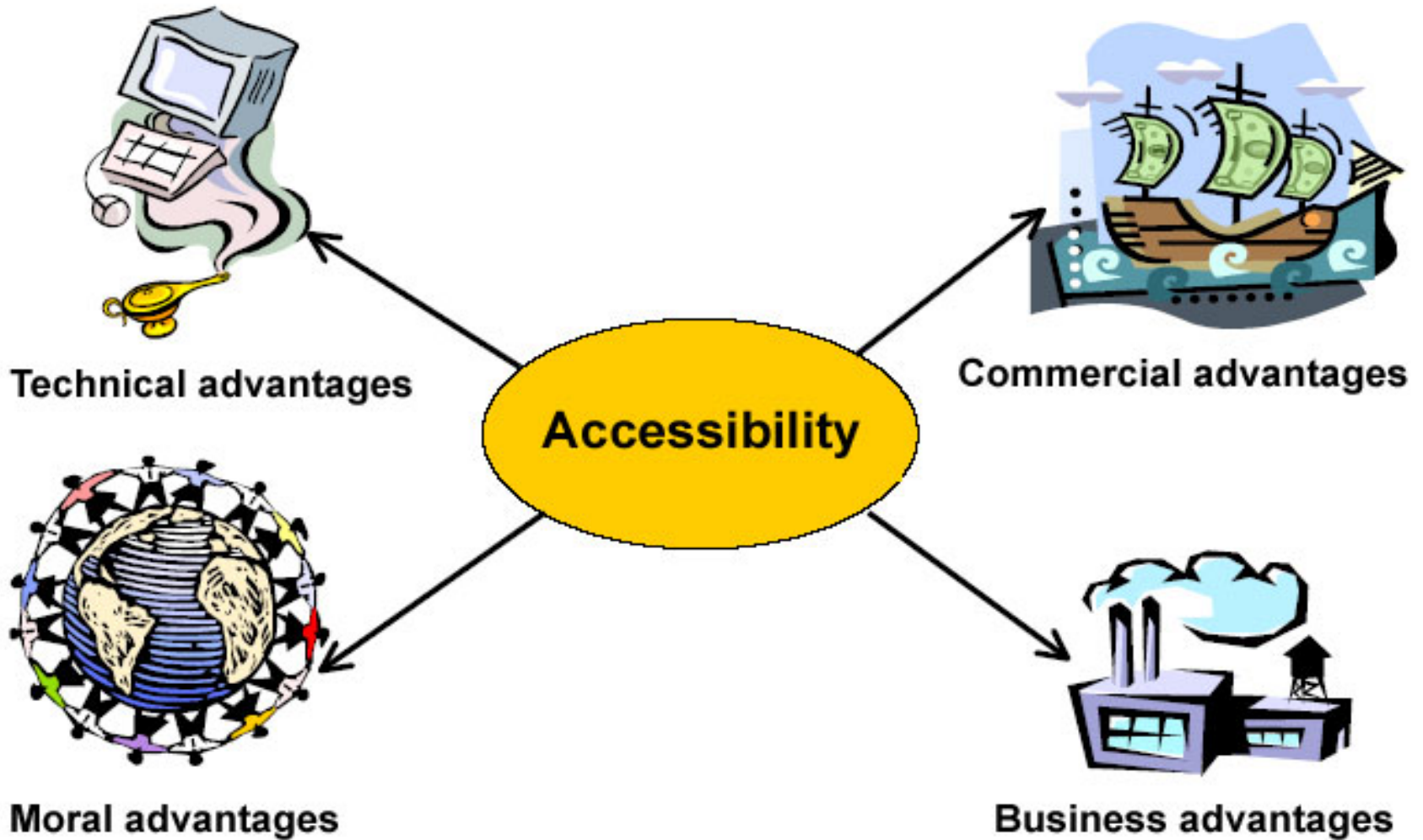
# How do disabled people use the Web?

Specific tools are available to compensate for other types of disability:

- for users with difficulty in distinguishing colours
- for users affected by photosensitive epilepsy
- for users with learning difficulties or language difficulties



# Advantages





# Web Accessibility Initiative

The World Wide Web Consortium (W3C) has promoted the Web Accessibility Initiatives (WAI).

The objective is to produce strategies, guidelines, resources to make the Web accessible to people with disabilities <http://www.w3.org/WAI/>





# Web Accessibility Initiative

The WAI project deals with Web accessibility in the lay sense; that is, not only as far as regards contents, but also in terms of the tools used to realise the Web pages, the browser and, more generically, technologies for Web access.



# Web Content Accessibility Guidelines

- were developed by the [Web Content Accessibility Guidelines Working Group](#) (WCAG WG);
- became a W3C Recommendation 5 May 1999;
- explain how to make accessible Web sites;
- contain general guidelines;
- have three priority levels of normative checkpoints;
- have extensive supporting resources



# Web Content Accessibility Guidelines

It documents explain how to make Web content accessible to people with disabilities. Web "content" generally refers to the information in a Web page or Web application, including text, images, forms, sounds, and such.

[WCAG 1.0](#) has 14 guidelines that are general principles of accessible design. Each guideline has one or more checkpoints that explain how the guideline applies in a specific area.



# Resources for WCAG

There are extensive implementation support resources for WCAG 1.0, including:

[WCAG 1.0 Checklist](#)

[WCAG 1.0 Techniques](#)

[WCAG 1.0 Frequently Asked Questions \(FAQ\)](#)

[WCAG 1.0 Conformance Logos](#)

[WCAG 1.0 Translations](#)

[WCAG 1.0 Fact Sheet](#)

[WCAG 1.0 Curriculum](#)

[QuickTips for Accessible Web Sites](#)

[Evaluating Web Sites for Accessibility](#)

[Implementation Planning for Web Accessibility](#)

[Planning Web Accessibility Training](#)



# WCAG: Level of compliance

## 3 Priorities:

### Priority 1 (A-compliant):

Criteria a web developer must satisfy

Basic requirement for some groups to be able to access web documents

### Priority 2 (AA-compliant):

Criteria a web developer should satisfy

Removes significant barriers to accessing web documents

### Priority 3 (AAA-compliant):

Criteria a web developer may satisfy

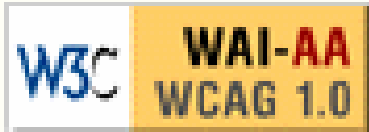
Improves access to web documents



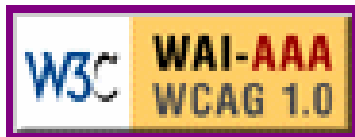
# WCAG: Level of compliance



Level **A**: All the checkpoints of priority 1 are satisfied



Level **AA**: All the checkpoints of priority 1 and 2 are satisfied



Level **AAA**: All the checkpoints of priority 1, 2 and 3 are satisfied



## SYNTHESIS OF THE WEB CONTENT ACCESSIBILITY GUIDELINES (VERSION 1.0) 1-7

- 1. Provide equivalent alternatives to auditory and visual content.** Non-text element includes: images, graphical representations of text (including symbols), image map region
- 2. Don't rely on color alone.** Ensure that all information conveyed with color is also available without color.
- 3. Use markup and style sheets and do so properly.** Use style sheets to control layout and presentation. Use relative rather than absolute units in markup language attribute values and style sheet property values.
- 4. Clarify natural language usage.** Clearly identify changes in the natural language of a document's text and any text equivalents
- 5. Create tables that transform gracefully.** Ensure that tables have necessary markup to be transformed by accessible browsers and other user agents.
- 6. Ensure that pages featuring new technologies transform gracefully.** Ensure that pages are accessible even when newer technologies are not supported or are turned off.
- 7. Ensure user control of time-sensitive content changes.** Ensure that moving, blinking, scrolling, or auto-updating objects or pages may be paused or stopped.



**SYNTHESIS OF THE WEB CONTENT ACCESSIBILITY GUIDELINES (VERSION 1.0) 8-14**

- 8. Ensure direct accessibility of embedded user interfaces** Ensure that the user interface follows principles of accessible design: device-independent access to functionality, keyboard operability, self-voicing, etc.
- 9. Design for device-independence** Use features that enable activation of page elements via a variety of input devices.
- 10. Use interim solutions** so that assistive technologies and older browsers will operate correctly.
- 11. Use W3C technologies and guidelines** according to specification. Where it is not possible to use a W3C technology, or doing so results in material that does not transform gracefully, provide an alternative version of the content that is accessible.
- 12. Provide context and orientation information.** : Provide context and orientation information to help users understand complex pages or elements.
- 13. Provide clear navigation mechanisms.** Provide clear and consistent navigation mechanisms -- orientation information, navigation bars, a site map, etc. -- to increase the likelihood that a person will find what they are looking for at a site.
- 14. Ensure that documents are clear and simple** so they may be more easily understood.



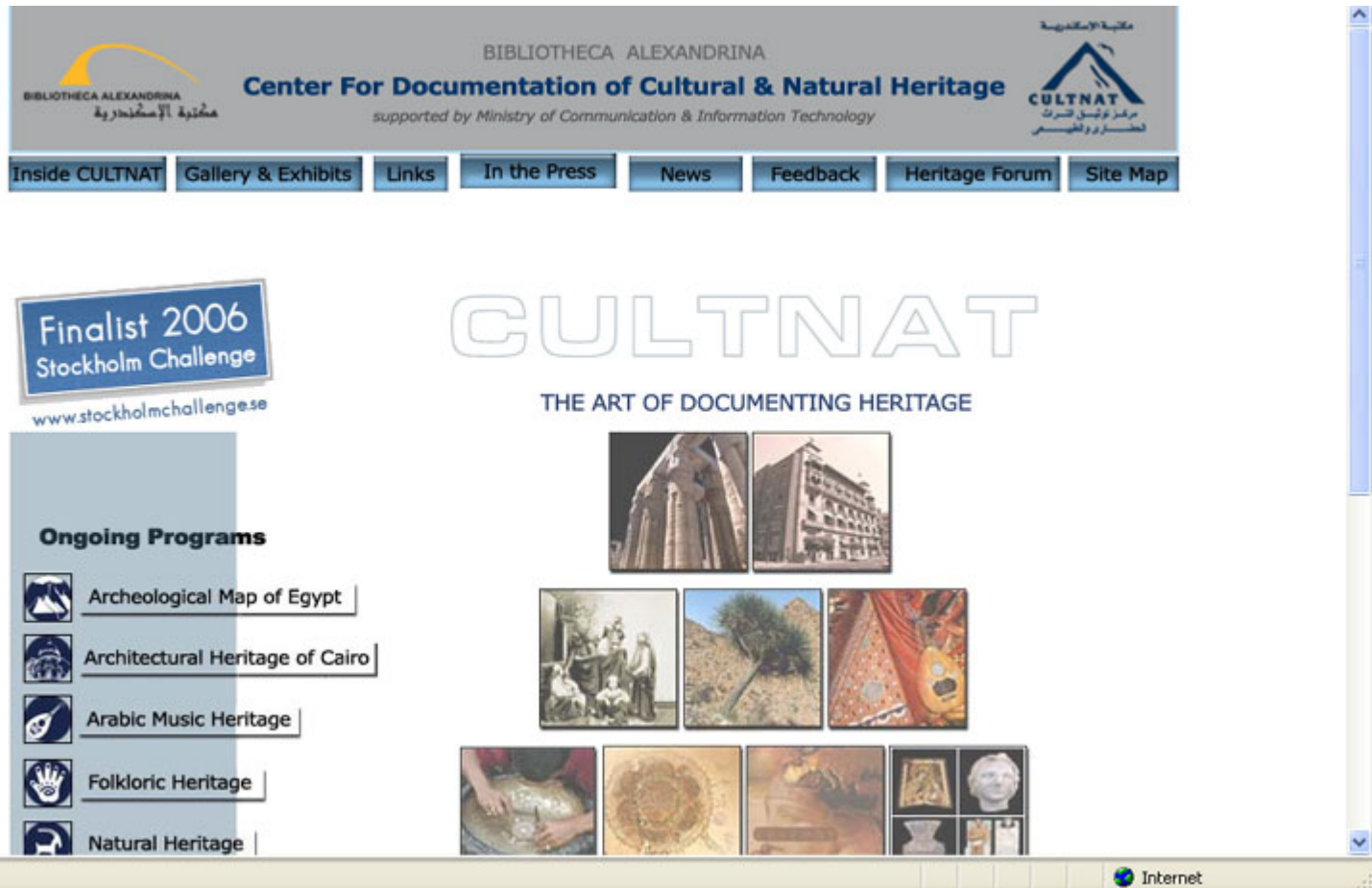


# Examples 1: images

Provide a text equivalent for every non-text element (e.g., via "alt", "longdesc", or in element content). This includes: images, graphical representations of text (including symbols), image map regions, animations (e.g., animated GIFs), applets and programmatic objects, ascii art, frames, scripts, images used as list bullets, spacers, graphical buttons, sounds (played with or without user interaction), stand-alone audio files, audio tracks of video, and video.

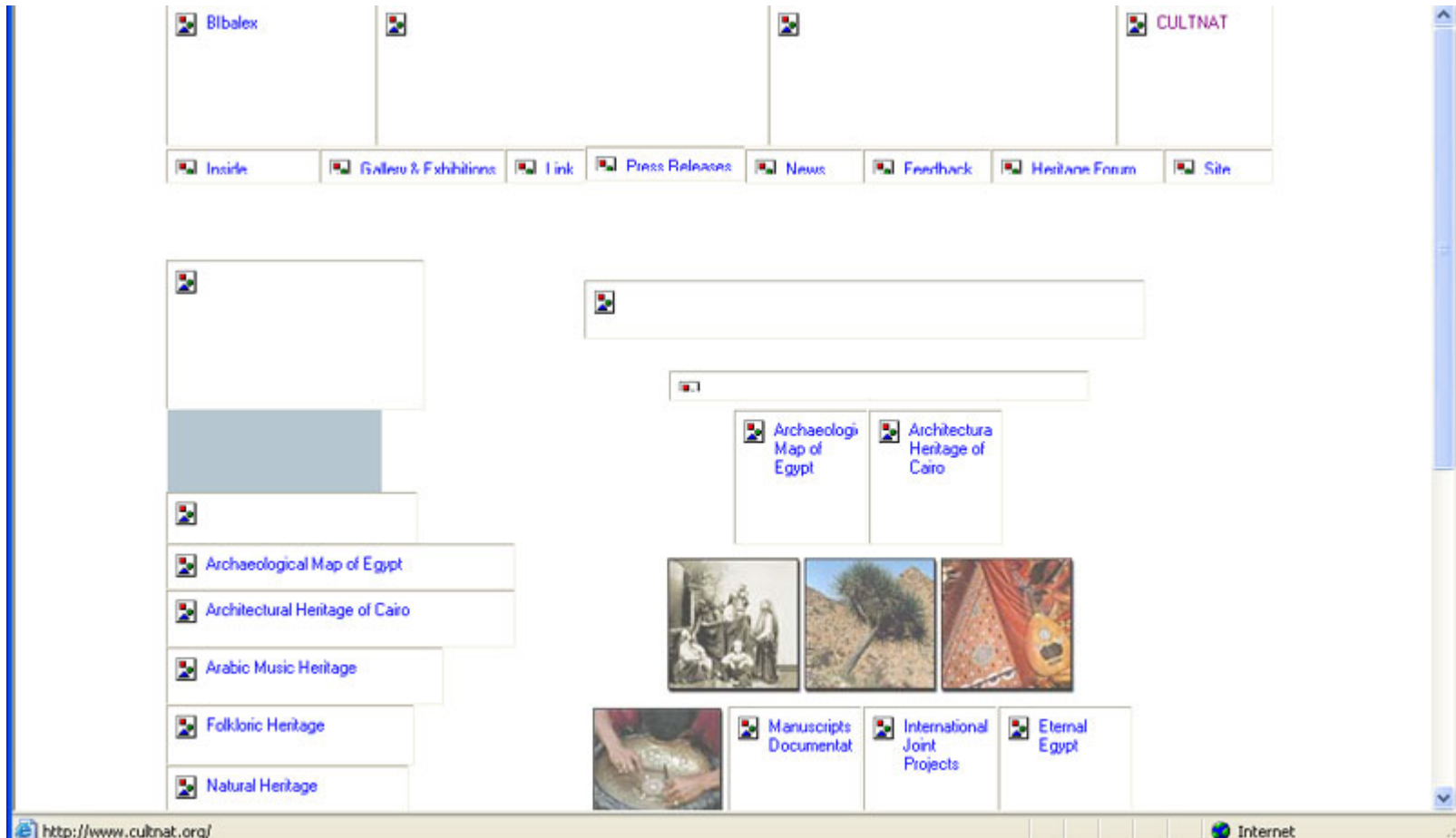


# Examples 1: images





# Examples 1: images





## Examples 2: color

Ensure that foreground and background color combinations provide sufficient contrast when viewed by someone having color deficits or when viewed on a black and white screen.

[Priority 2 for images, Priority 3 for text].



# Examples 3: multimedia

Until user agents can automatically read aloud the text equivalent of a visual track, provide an auditory description of the important information of the visual track of a multimedia presentation.

[Priority 1]



# Examples 4: code validation

Create documents that validate to published formal grammars. Use for example W3C validator. Important show doctype.

[Priority 2]



# Examples 5: relative units

Use relative rather than absolute units in markup language

attribute values and style sheet property values

[Priority 2]



# Examples 6: metadata

Provide metadata to add semantic information to pages and sites. For example, use DUBLIN CORE to indicate the document's author, the type of content, etc.

[Priority 2]





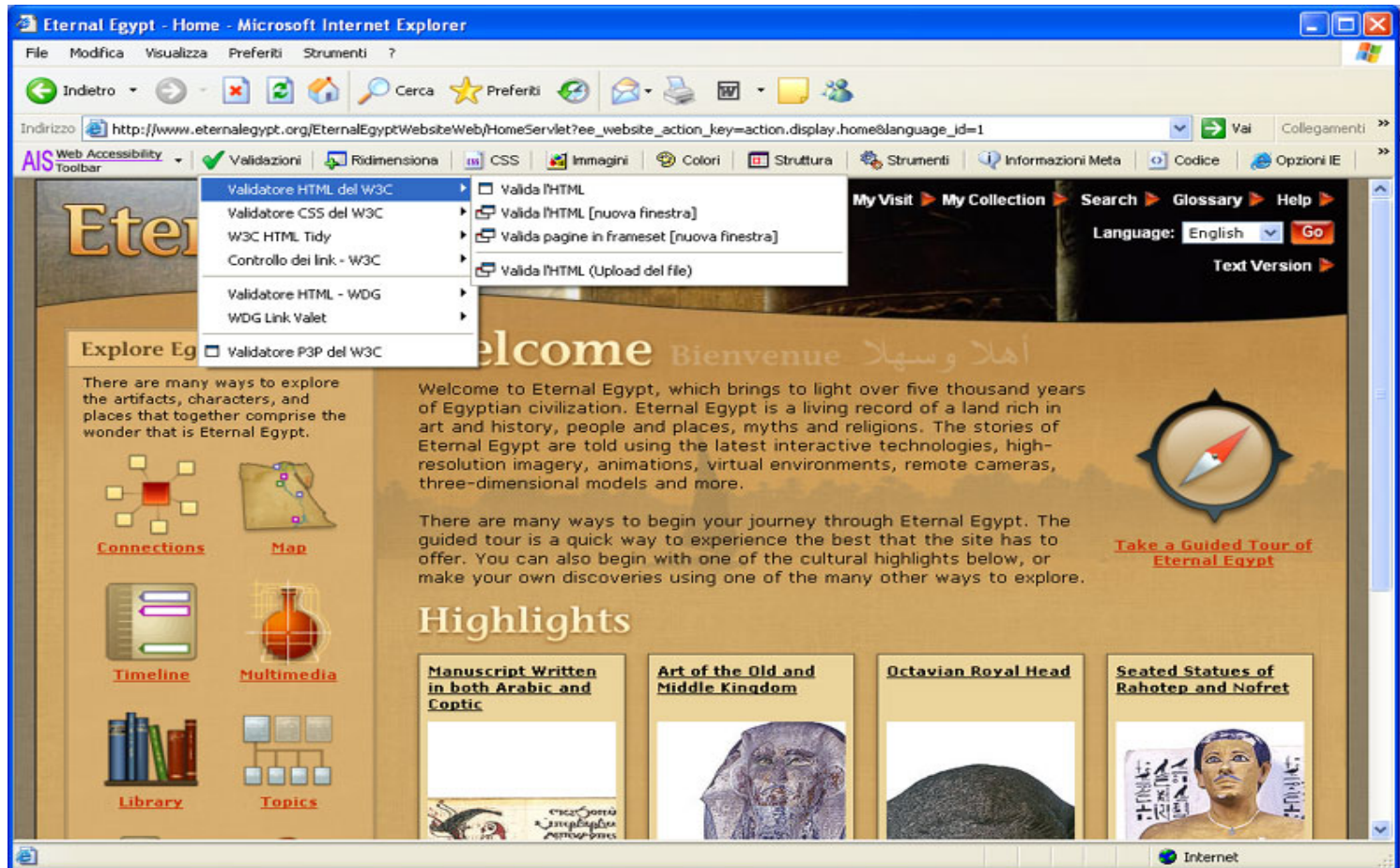
# Useful instrument

The Web Accessibility Toolbar

<http://www.wat-c.org/WAT/versions/en/index.html#download>



# Useful instrument





**minerva**  
*eEurope*



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**Thanks!**

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