

Summary

Is the web becoming less accessible, due to the features of Web 2.0? Web 2.0 is considered to be an ambiguous term; a term and concept that some would say does not actually exist. Web 2.0 can be described as a collaborative set of services/technologies hosted on the world wide-web, dominated by user-generated content. Research into this field has focused on looking at the features and functional activities that are required to label an application as Web 2.0. This has resulted in applications being tested with various automated accessibility checkers to identify how accessible Web 2.0 is and what this implies for the future of the web.

What is Web 2.0?

Web 2.0 is thought to be a platform or set of services that encourages “interaction, community and openness” amongst the user-dominated web [1]. Web 2.0 services seek to combine the intelligence of users in a way that dynamic information is created, shared and accessed in a variety of formats, so the focus is on the user interaction (Figure 1). The user becomes the author and is given more control over the web content.

AJAX - richer user interfaces. Users can benefit from many of the features they would get from desktop applications (Figure 2).

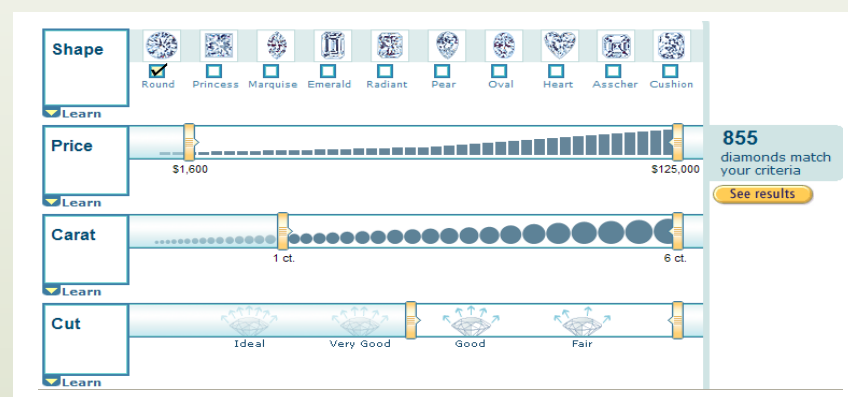


Figure 2-Screenshot from Amazon.com for selecting diamonds [2]



Figure 1-Mind map of typical Web 2.0 features (created by Markus Angermeier [3])

Guidelines & standards

Various organisations have created guidelines and standards to encourage web developers to create websites that are accessible to everyone. These include:

Web Content Accessibility Guidelines (WCAG) - making content clear and understandable, providing clear navigation and alternative formats for audio or visual content.

Section 508 - making information technology accessible to users with disabilities.

Voluntary Product Accessibility Template (VPAT) - provides a standardized checklist for the pre-assessment of the accessibility of information technology.

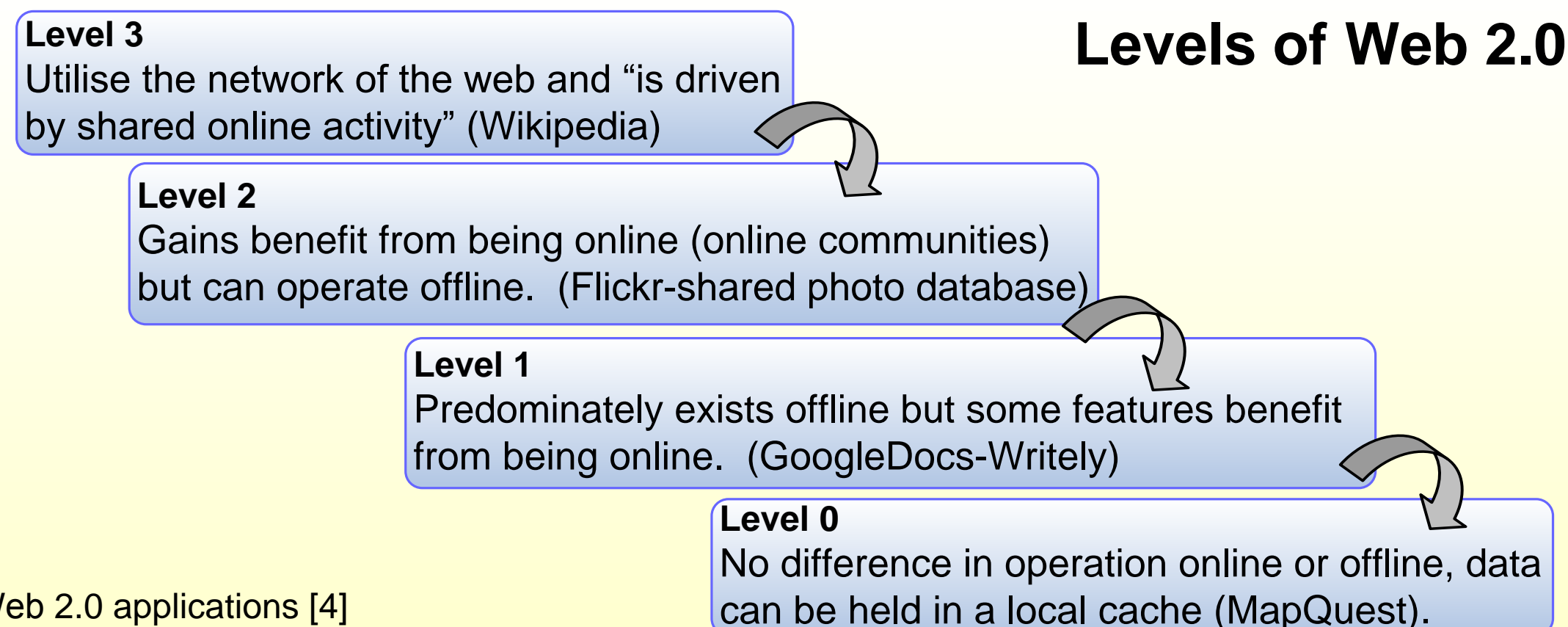
PAS 78 (Publicly available specification) - creating accessible websites in accordance with the UK Disability Discrimination Act 1995 (DDA).

Accessible Rich Internet Applications (ARIA) – providing meaning to web content in a way that relationships can be formed, as well as making navigation processes similar to desktop applications.

User Agent Accessibility Guidelines (UAAG) - content should be accessed in a number of ways on different platforms for browsers and media players.

Authoring Tool Accessibility Guidelines (ATAG) - producing valid markup automatically and creating accessible content for web authoring tools.

O'Reilly's hierarchy of Web 2.0 applications explains that the more an application can benefit from the participation and collaboration of the networked activity online, the more it can be classed as a Web 2.0 application (see flowchart).



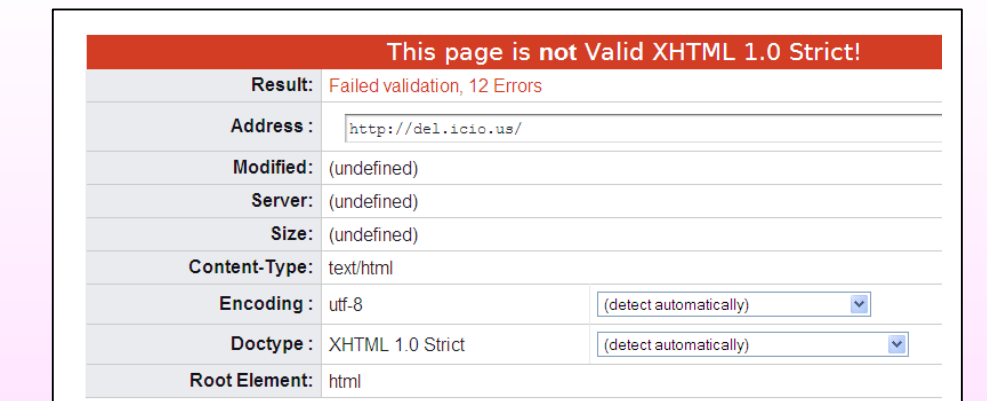
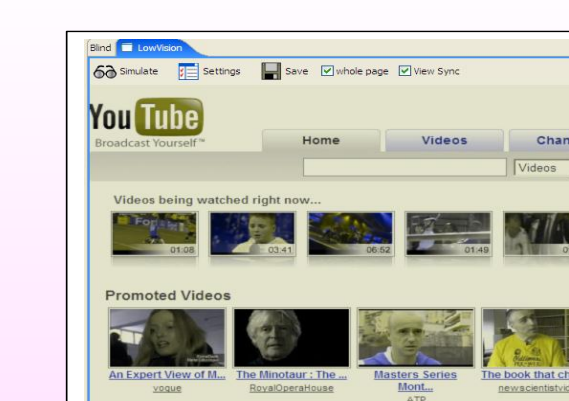
Flowchart - O'Reilly's hierarchy of Web 2.0 applications [4]

Results & conclusion

Main accessibility issues

- Visually impaired simulations: font size is fixed and colour combinations are difficult to distinguish from each other.
- Problems with navigation and orientation
- Not enough text equivalents for non-text content.
- Adherence to W3C specifications.

Figure 4-7-Results from accessibility checkers



Title: Functional accessibility of Wikipedia

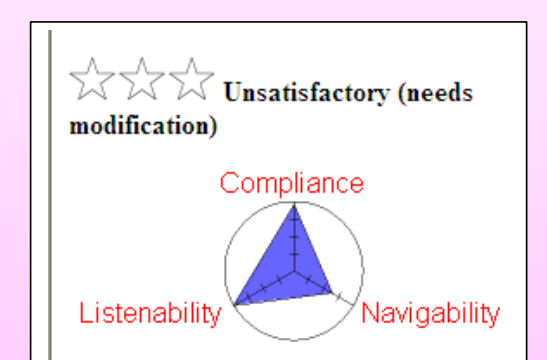
URL: www.wikipedia.org/

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Summary Report

Test Evaluation Summaries in HTML Best Practices Main Categories

	Status ¹	% Pass	% Warn	% Fail
Navigation & Orientation	Partially Implemented	42	0	57
Text Equivalents	Almost Complete	50	50	0
Scripting	Not Applicable	0	0	0
Styling	Partially Implemented	50	0	50
HTML Standards	Complete	100	0	0



Functional activities

Functional activities associated with Web 2.0 applications [5]

Social Networking

- Image/video sharing
- Asynchronous messaging
- Advertising
- Status visualisation (social awareness of others' activities)
- Customisation of profiles
- Adding/creating applications for increased functionality

Tagging (social bookmarking)

- Image/video sharing
- User-defined keywords/tags of images/videos
- Locating information related to a specific topic
- Adding/creating applications for increased functionality

Collaboration & sharing

- Shared documents
- Asynchronous messaging
- Image/video sharing
- Recommendations

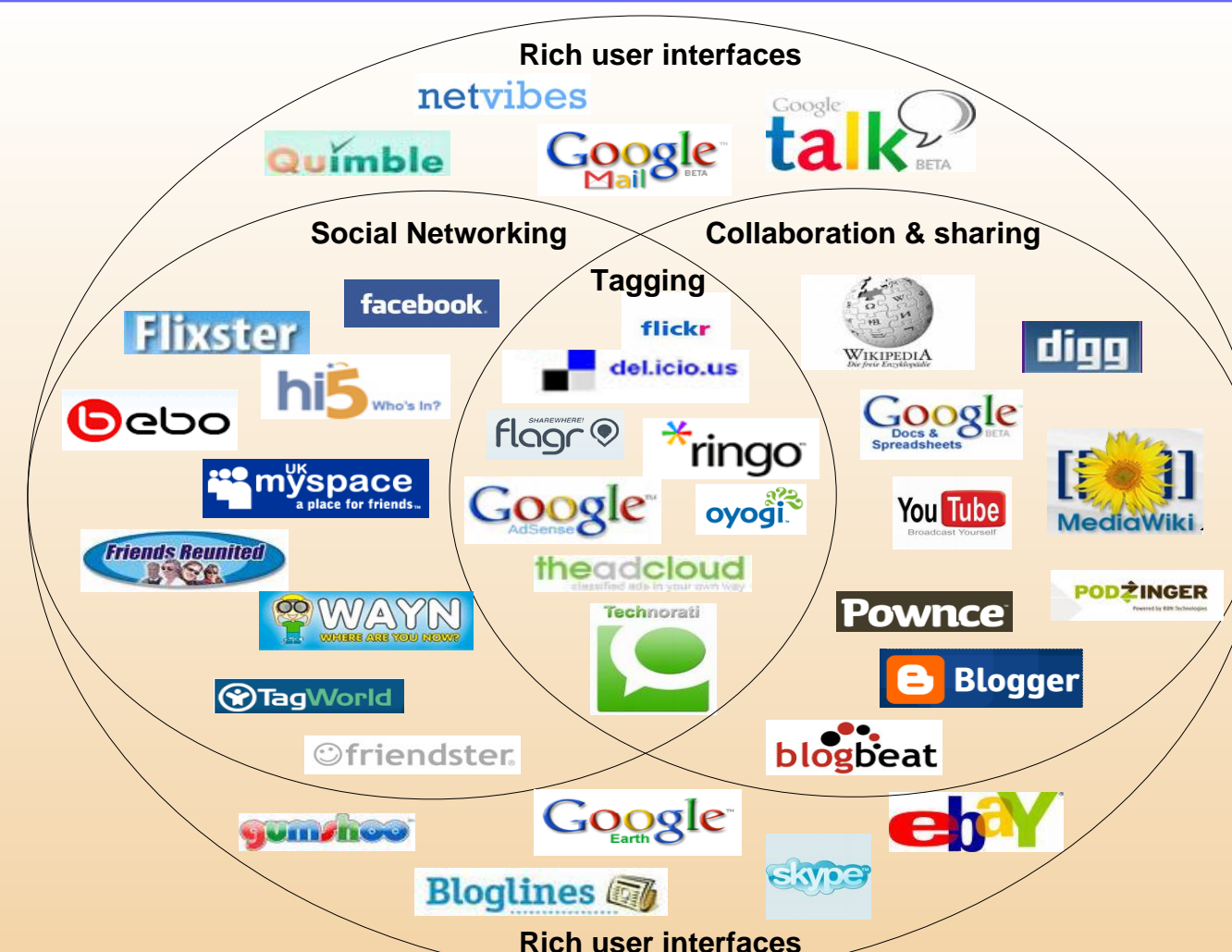


Figure 4-Categorization of Web 2.0 applications and tools

Web 2.0 applications are not completely accessible, as no application can meet the needs of every possible user. The move towards the semantic web will contribute to formatting data in a way that is suitable for the application as well as the user's needs [6]. This will help designers increasingly address the functionality of web applications to design with high usability and accessibility at all stages of development.

References

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- [6] Java_Jazz_up, "Web 3.0," in *Java Jazz up - A better way to learn programming*, vol. 1, 3, pp. 59-64, 2007. HU<http://www.javajazzup.com/issue3/page59.shtmlUH>

* For further reading, please refer to "Accessibility of Web 2.0" by Andrea Asamoah