

Fixing the Web

Combining Advanced Linking and Visualisation in
HTML5

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Overview

- Motivation
- Alternative tools (Research training)
- Proposed solution
- Contribution
- Future work

Motivation

Current standard

```
<p>The word <a href="http://www.google.com">Google</a> is a link.</p>
```

- HTML anchor tags (since 1995)
- Embedded
- Single source and single destination
- Unidirectional

Limitations

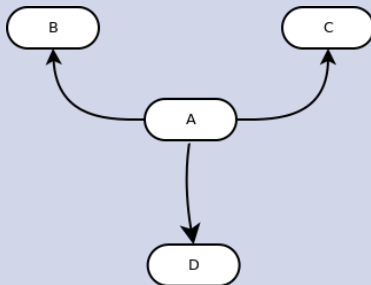
```
<a href="url1">This will be<a href="url2">an overlapping part</a> of two different links</a> tortor.
```

No overlapping hyperlinks

Vestibulum consectetur gravida elit, quis blandit leo auctor id. Quisquam
entum quam. Nullam quis aliquet justo, at scelerisque tortor. In a mattis
ante, vel tempus nulla mauris vel lorem. Vestibulum nisi turpis, vehicu

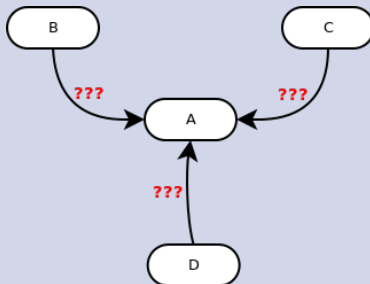
Limitations

No backlinks



Limitations

No backlinks



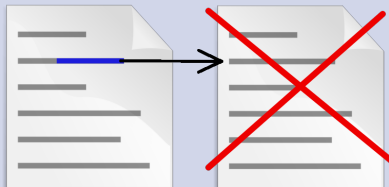
Limitations

Breaking hyperlinks



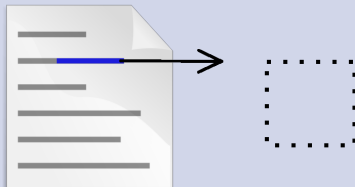
Limitations

Breaking hyperlinks



Limitations

Breaking hyperlinks



Coping Mechanisms

Backlink web services

**Web**

Images

Maps

More ▾

Search tools

About 1,160 results (0.25 seconds)

Tip: [Search for English results only](#). You can specify your search language in [Preferences](#)

[Verder studeren en heroriënteren » Universitaire Associatie Brussel](#)
[universitaireassociatiebrussel.be/verder-studeren-en-he...](#) ▾ [Translate this page](#)

... HERORIENTEREN_introductie. Verder studeren of je heroriënteren binnen de Universitaire Associatie Brussel... lees meer ...

[Nieuws - Federale Overheidsdienst Binnenlandse Zaken](#)

[www.ibz.be/news/nl/default.shtml](#) ▾ [Translate this page](#)

Welkom op de website van Binnenlandse Zaken! IBZ Maak kennis met onze Federale Overheidsdienst, een departement met een rijke geschiedenis. Leer onze ...

Coping Mechanisms

Dummy content

Pleinlaan 2
1050 Elsene
Belgium

P: +32/629.21.11

E: info@vub.ac.be

W: www.vub.ac.be




vCard




```
<a href="linkedin"></a>  
<a href="Google+"></a>  
<a href="stackoverflow"></a>  
<a href="github"></a>
```

The screenshot displays the Amaya 10.0 web browser interface. The browser window has a title bar that reads "Amaya - Home, Recent Sites, Bookmarks". The address bar shows "http://www.w3.org/Amaya/10.0/". The page content includes a header with the "Amaya [10.0]" logo and navigation links for "Home Site News Downloads". The main body features three columns of text: "New version 10.0", "Advanced features", and "Download your profile". The left sidebar contains a "File" menu with options like "Open...", "Save", "Print...", and "Exit". The status bar at the bottom shows the address bar and the page title "Amaya 10.0".

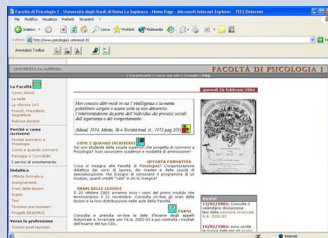
 $\pi \times 2 + \sqrt{2 + \sqrt{2 + \sqrt{2}}}$

Another equation:

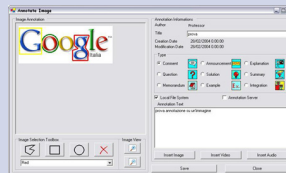
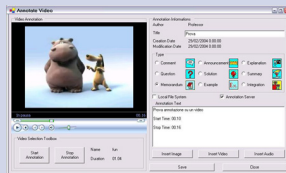
 $a = \frac{\Phi}{\sqrt[3]{\Theta}} + e$

Alternative Tools

Madcow

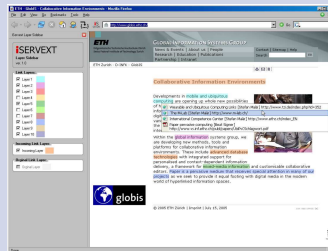


Selections



Alternative Tools

iWeb



Selections

- ☒ Layer 1
- ☒ Layer 2
- ☐ Layer 3
- ☐ Layer 4
- ☐ Layer 5
- ☒ Layer 6
- ☒ Layer 7

Continue →

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Collaborative Information Environments

Developments in mobile and ubiquitous computing are opening up whole new possibilities of how users can access and interact with information. Instead of focussing solely on the digital desktop, it is important to consider the various forms of information and devices within the user's environment as well as how they interact with and influence other users.

Within the global information systems group, we are

Alternative Tools

Benefits

- Remove embedded hyperlinks
- Allow collaboration
- Share metadata

Limitations

- Designed for small groups of users
- Inline rendering

Newly Introduced Issues

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Multi user setting

- Visibility
- Scalability
- Lack of overview

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lorem vehicula leo, gravida tempus ante turpis eget eros.

Integer lorem elit, feugiat at metus quis, vehicula tincidunt massa. Duis sollicitudin massa eu nisi cursus, nec porttitor sem vulputate. Etiam molestie ipsum vel tincidunt ullamcorper. Cras commodo nulla vel purus feugiat consequat. Cras in orci non lacus blandit lobortis in at urna. Nam vehicula orci nunc, at tincidunt mi facilisis vel. Quisque iaculis ligula quis diam lobortis auctor. Sed dignissim varius lacus. Phasellus a neque sit amet sapien semper pellentesque. Curabitur nec lacinia velit.

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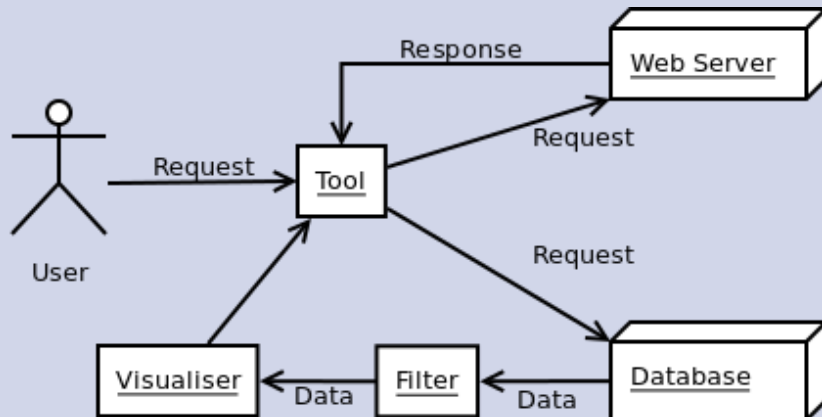
Newly Introduced Issues

Suboptimal use of data dimensions

	Amaya	Madcow	iWeb
Location on page	✓	✓	✓
Document type	✗	✓	✗
Domain	✗	✗	✗
Amount of outgoing links	✗	✗	✗
Amount of incoming links	✗	✗	✗
Popularity of hyperlink	✗	✗	✗
Tagged Data	✗	✗	✓

Solution

Proposed solution



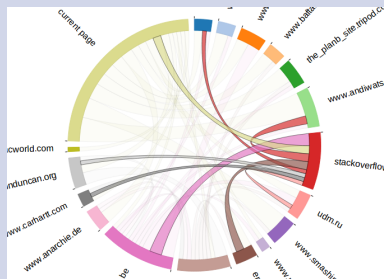
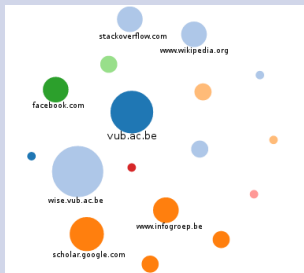
Solution

Proposed solution

New Frame		Create Link	
Url	AddSource	AddDestination	
<div></div>			
Filter	Search	Visualisation	
Link types			
<div></div>			

Url	AddSource	AddDestination	
<div></div>			
Filter	Search	Visualisation	
Link types			
<div></div>			

Visualisation



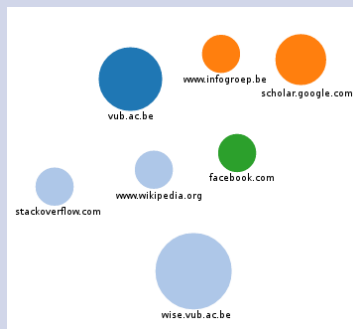
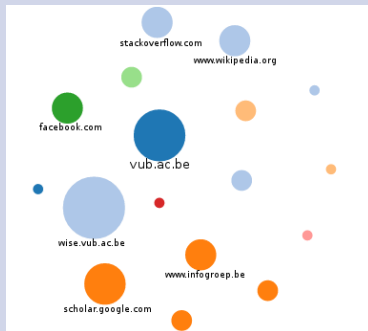
Filter metadata

- User configuration
- Machine learning
- Community based voting
- ...

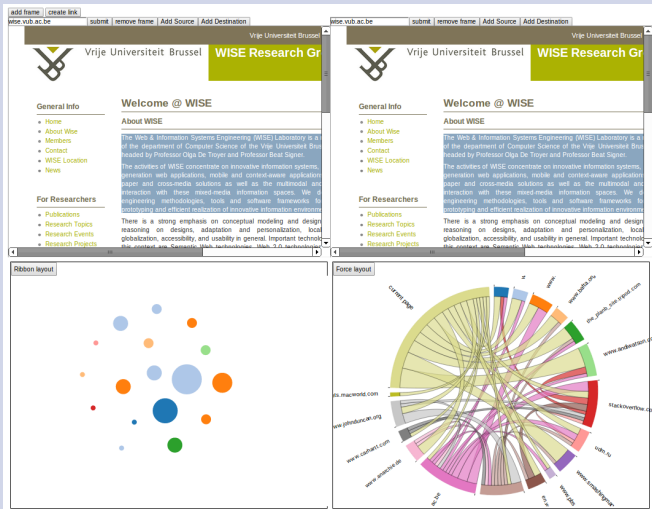
Filter metadata

- User configuration
- Machine learning
- Community based voting
- ...

Filter metadata



Visualisation



Demo

Contributions

- Literature study
- Identified shortcomings with state-of-the-art
- Innovative proposed solution
- Extensible prototype implementation

Future Work

- Link robustness
- Interactivity
- Visualisations

