

Microformats

Andrew Walbran

Victoria University of Wellington

August 17, 2008

Abstract

This seminar discusses microformats, a practical approach towards a semantic web. Currently standardised microformats will be discussed along with a few of the many proposed formats, and then some real examples of a few popular microformats are given to provide a concrete idea of what microformats actually look like to the web developer. Finally, some current implementations of these microformats will be discussed.

Overview

- Machine-readable semantic data embedded in XHTML.
- Contact details, event information, geographical co-ordinates, social relationships etc.
- Parsed by web browsers, spiders etc., processed and / or displayed in arbitrary ways

'Semantic Web': everything in RDF

Microformats build on existing XHTML documents, with minimal changes — a more practical path to a semantic web.

Some standardised microformats

- **hCalendar**, for marking up event information (based on the standard iCalendar format used by most calendaring software).
- **hCard**, for marking up contact details (based on the vCard specification).
- **rel-license**, for indicating the copyright license of a web page.
- **rel-nofollow**, for indicating that search engines should not count certain links when calculating the weight of the target page.
- **rel-tag**, for marking tags on blogs, social media sites, and so on.
- **vote-links**, for marking links to vote for or against something.
- **XFN**, for marking links to friends' pages (such as on a social networking site or a blogroll) according to one's relationship to them.
- **XOXO**, for outline documents.

Some draft microformats

- **geo**, for marking up geographic coordinates (latitude and longitude)
- **hReview**, for reviews of products, services etc..

There are many more.

General approach

Many microformats work by adding certain specific class attributes to HTML elements, and some are based on setting certain values for the `rel` and `rev` attributes of links. hCard and hCalendar are shown here as examples of the former type, and XFN as an example of the latter.

Example: hCard

- Contact details
- Based on vCard standard
 - Each attribute maps to a vCard property.
- Possible uses:
 - Social network profile page
 - Personal website
 - Employee list on company website

Example: hCard

Without hCard, my contact details are only human readable:

```
<div>  
  <a href="http://q.geek.nz/">Andrew David Walbran</a>  
  (qwandor)<br />  
  Email: qwandor@gmail.com<br />  
  Phone: +64 4 123 4567  
</div>
```

Example: hCard

With hCard markup, they look the same to the user, but are now able to be read by software and translated into a vCard or used in some other way:

```
<div class="vcard">
  <a class="fn_url" href="http://q.geek.nz/">
    <span class="given-name">Andrew</span>
    <span class="additional-name">David</span>
    <span class="family-name">Walbran</span>
  </a>
  (<span class="nickname">qwador</span>)<br />
  Email: <span class="email">qwador@gmail.com</span><br />
  Phone: <span class="tel">+64 4 123 4567</span>
</div>
```


Example: hCalendar

- Event details, for calendaring
- Based on iCalendar standard

A listing for this lecture might look like this, without any microformatting:

```
<div>
  <div>
    Wednesday 13<sup>th</sup> August 2008, 9:00 am
    &ndash;
    11:00 am
  </div>
  <div>COMP417 lecture</div>
  <div>VUW, CO249</div>
  <p>
    During this lecture , COMP417 students will each
    present a aspect of Internet technology to the rest
    of the class .
  </p>
  <div>Category: lecture</div>
</div>
```

Example: hCalendar

After adding hCalendar markup:

```
<div class="vevent">
  <div>
    <abbr class="dtstart" title="20080813T090000">
      Wednesday 13<sup>th</sup> August 2008, 9:00 am</abbr>
    &ndash;
    <abbr class="dtend" title="20080813T110000">
      11:00 am</abbr>
  </div>
  <div class="summary">COMP417 lecture</div>
  <div class="location">VUW, CO249</div>
  <p class="description">
    During this lecture, COMP417 students will each
    present a aspect of Internet technology to the rest
    of the class.
  </p>
  <div>Category: <span class="category">lecture</span>
</div>
</div>
```

Example: XFN

XFN works on the `rel` attribute of hyperlinks. It requires that pages declare they are using XFN by adding a certain profile to their document head. For example:

```
<head profile="http://gmpg.org/xfn/11">
```

...

```
<ul>  
  <li><a href="http://fiasco.co.nz" rel="friend_met">  
    fiasco</a></li>  
  <li><a href="http://frothmouthedlefty.blogspot.com" rel="acquaintance_met">  
    froth mouthed lefty</a></li>  
  <li><a href="http://qwandor.wordpress.com" rel="friend_met_colleague">  
    qwandor</a></li>  
</ul>
```

Websites providing microformats

Many websites provide microformatted content. Some examples:

- **last.fm** uses hCalendar for concert listings, hCard for user profiles and venues and XFN for marking links to users' homepages. It used to use hAtom as well, for posts on users' and artists' pages.
- The **MCS seminar system** marks up seminar listings with hCalendar.
- **WordPress** (a blog publishing system) uses XFN for blogrolls and rel-tag for article tags.
- **Google Maps** uses hCard for search results (addresses and contact details) .
- **Flickr** uses XFN for links to users' contacts, and hCard for users' profiles. It also uses geo for geotagged photos.

There are many others.

<http://microformats.org/wiki/examples-in-the-wild> lists some more examples.

Microformat consumers

Some software and sites that can use microformats in other pages to do useful things include:

- **Konqueror** can export hCard and hCalendar.
- **Operator** is a Firefox extension to handle a wide range of microformats, with several actions available for each format to use the data with appropriate web services or export it to a file to use with desktop applications.
- **Technorati** provide web services to convert hCard to vCard and hCalendar to iCalendar. They also have a microformat search engine, supporting hCard, hCalendar and hReview.
- **Yahoo SearchMonkey** indexes a number of microformats.
- Google gathers information about people and social connections from XFN as well as FOAF, and makes it available via their **Social Graph API**.

There are many more.