Week 3

REPRESENTING DATA: HTML 5 & SEMANTIC HTML

Meaning in Markup

* <p> and </p> are used to mark paragraphs
* Has meaning
  + People know what paragraphs are
  + Browsers know how to handle paragraphs
  + This results in semantic markup
* Tags like <b> or <i>
  + Doesn’t covey anything about the content that has been marked as bold or italic, just communicates how it should look

Tags misuse

* Blockquote- used to indent text because default presentation is indented (instead of using CSS margins)
* Paragraph- used to add space between page elements instead of defining actual paragraphs (instead of margin and padding style properties)
* Unordered lists- used to indent text but without list elements the HTML is invalid (as well as being semantically incorrect (margin or padding styles))
* Heading- used to make text bigger and bolder. Semantically incorrect if the text isn’t actually a heading(font-weight and font size CSS properties)

DIV SOUP

* Graphical user interface, application

  Description automatically generated

Structure and meaning

* Search engines don’t see style and presentation. Only see content
* They understand how to handle the content because the content and its markup communicate the meaning of the content
* Where we place content on a page, and how we mark it up can alter how tgat content is dealt with
  + E.g Content in <H1> is more lickly to be weighted as important to the structe of the page and so contribute to search engine analysis than content in <p> (which is more likely than content in <b>).

Semantic markup

* Drive toward marking up meaning in addition to typographic elements
* Designers have tried to bring semantic markup to HTML in their use of <div> and <span> to group elements of a page together but <div? and <span> don’t mean anything
  + One <div> could be a navigational collection, another <div> could contain core content
  + A <nav> tag communicates that its content should be treated as navigational content
  + Designers defined their own id/class name but this was ad hoc and so inconsistent. Difficult to process i.e. search engines detecting useful parts of a given page
* Tags that communicate more clearly defined meaning about content are useful: Can lead to better structure, increased accessibility, more reliable automated processing, maintainability, & reuse.

HTML 5

* Semantic meaning has always been present in HTML 5 but now emphasized
* HTML 5 attempts to address this through addition of meaningful grouping tags(sectioning elements - “divs but with added meaning”)
* <article>, <aside>, <details>, <figcaption>, <figure>, <footer>, <header>, <main>, <mark>, <nav>, <section>, <summary>, <time>

Semantic Meaning (HTML )

* Some existing tags redefined to have semantic meaning
* Notice the absence of <b> and <i> - these have presentational meaning only so are not semantic HTML
* Graphical user interface, table

  Description automatically generated

New semantic tags in HTML 5

* <section> - a thematic grouping of content, typically with a heading
* <article> - independent, self-contained content
* <header> - container for introductory content
* <footer> - information about its containing element (author, copyright,&c.)
* <nav> - major blocks of navigational links
* <aside> - related additional content
* <figure> & <figcaption> - visually explain  
  an image
* <main> - the core content of the  
  document
* <mark> - highlighted/emphasised sections
* <details> - additional information that can  
  be hidden/shown
* <summary> - visible heading associated  
  with <details>
* <time> - date/time information