Page layout

- Possibility to control page layout without needing to use presentation markup
- CSS layout has a rather undeserved reputation of being difficult
  - Mostly due to a proliferation of different layout techniques available on the Web
- Tasks
  - Horizontally centering a design on a page
  - Creating two- and three-column float-based layouts
  - Creating fixed-width, liquid, and elastic layouts
  - Making columns stretch to the full height of the available space

Centering a design

- Long lines of text can be difficult and unpleasant to read
- Rather than spanning the full width of the screen, centered designs span only a portion of the screen, creating shorter and easier-to-read line lengths
- Two basic methods
  - Use auto margins
  - Use positioning and negative margins

Auto margins

- Define the width of the wrapper div
- Set the horizontal margin to auto

```
<body>
<div id="wrapper">
</div>
</body>
```

```
#wrapper {
width: 720px;
margin: 0 auto;
}
```

- The most common approach
- IE 5.x and IE 6 do not support auto margins

```
body {
text-align: center;
}
#wrapper {
width: 720px;
margin: 0 auto;
text-align: left;
}
```

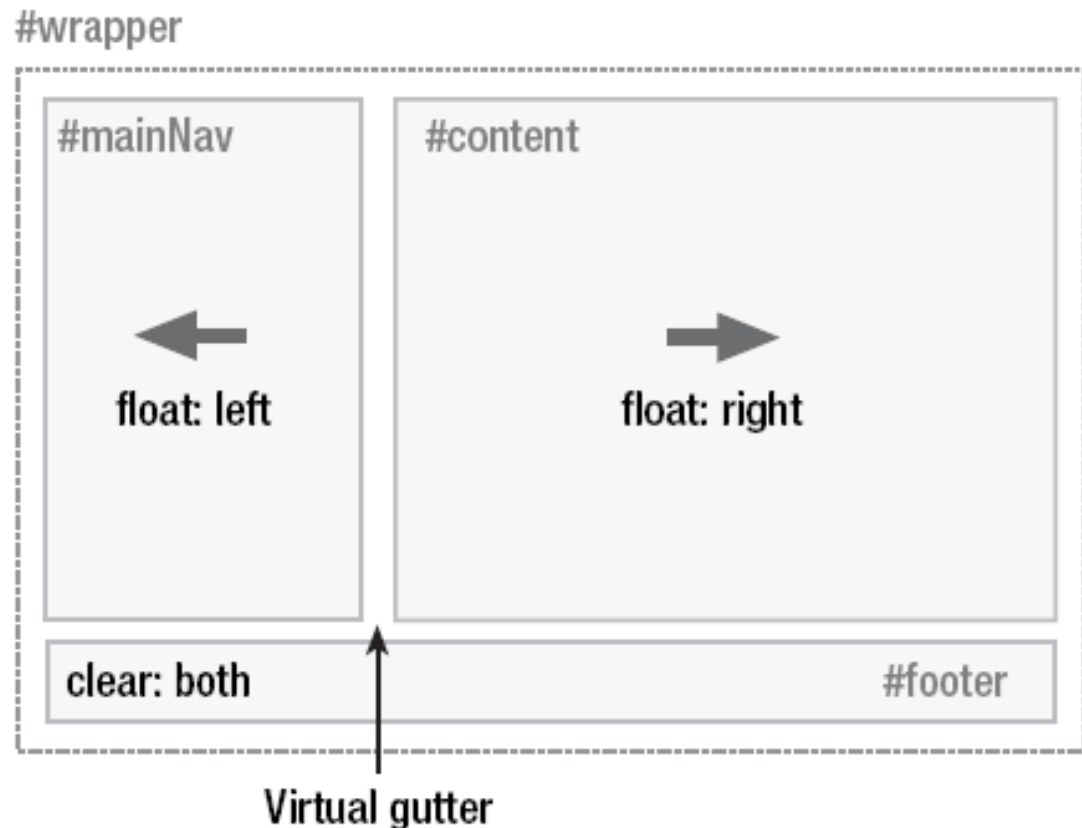Examples/chapter08/centering-auto-margin.htm

Float-based layouts

- Simply set the width of the elements you want to position, and then float them left or right
- Two-column floated layout
- Three-column floated layout

Two-column floated layout

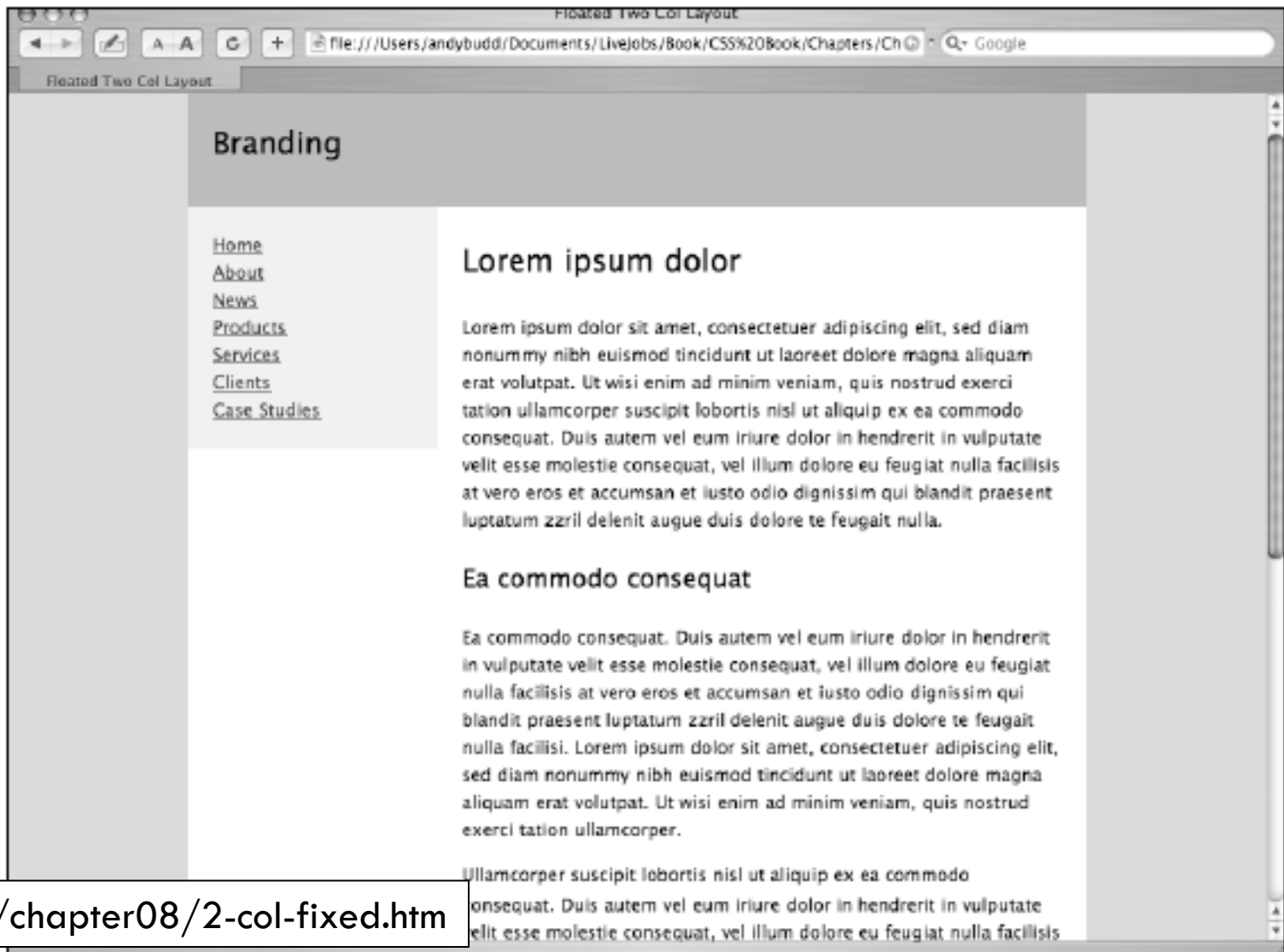- Create a virtual gutter by floating one element left and one element right

Two-column floated layout

```
#content {
width: 520px;
float: right;
}
#mainNav {
width: 180px;
float: left;
}
#footer {
clear: both;
}
```

- Better: add horizontal padding

```
#mainNav {
padding-top: 20px;
padding-bottom: 20px;
}
#mainNav li {
padding-left: 20px;
padding-right: 20px;
}
#content h1, #content h2,
     #content p {
padding-right: 20px;
}
```

Two-column floated layout

Examples/chapter08/2-col-fixed.htm

43

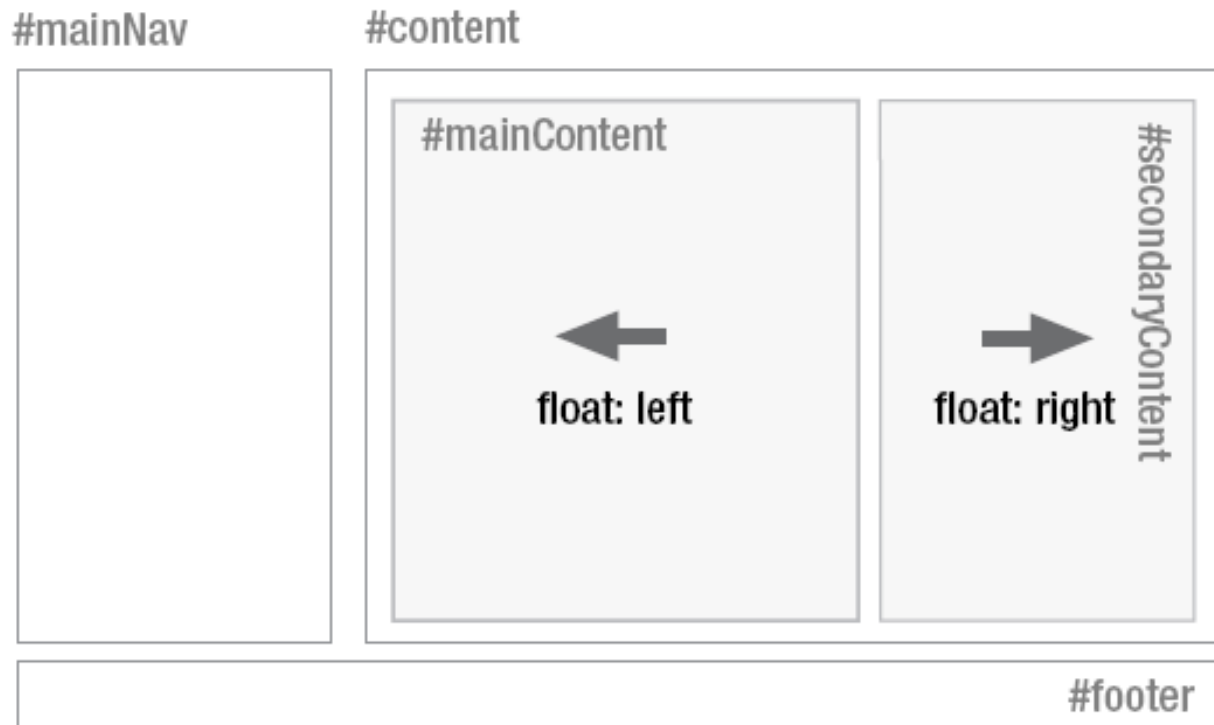# Three-column floated layout

- (X)HTML framework
  - similar to the two column layout, but two new divs inside the content div

```
<div id="content">
<div id="mainContent">
…
</div>
<div id="secondaryContent">
…
</div>
</div>
```

Three-column floated layout

- Float the main content left and the secondary content right, inside the already floated content div
  - Divides the second content column in two, creating a three-column effect
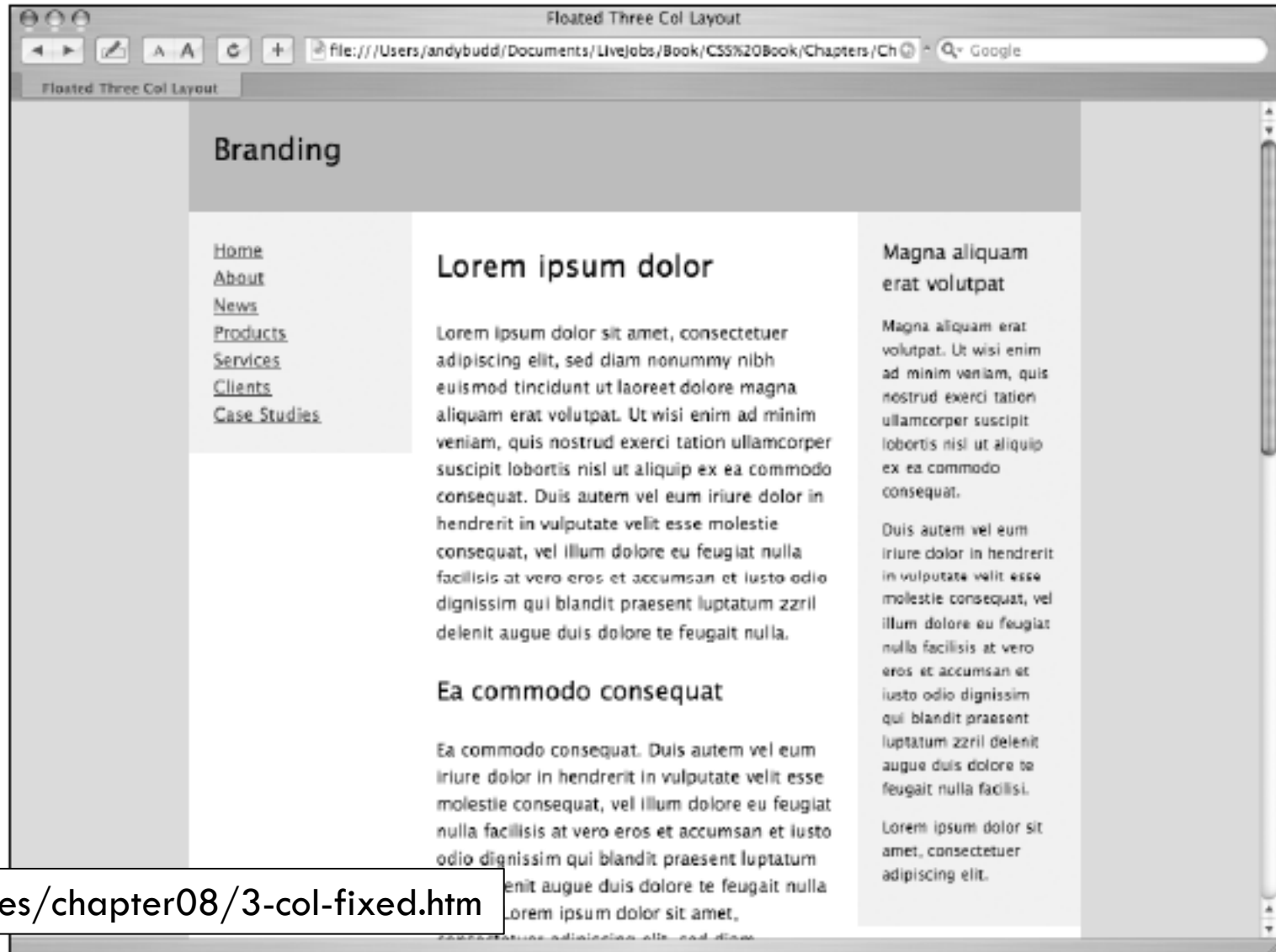
Three-column floated layout

```
#mainContent {
width: 320px;
float: left;
}
#secondaryContent {
width: 180px;
float: right;
}
```

- Better: remove the padding from the content element and apply it to the content of the secondary content

```
#secondaryContent h1, #secondaryContent h2,
    #secondaryContent p {
padding-left: 20px;
padding-right: 20px;
}
```

Three-column floated layout

Examples/chapter08/3-col-fixed.htm

Fixed-width, liquid, and elastic layout

- Fixed-width layout
  - Column widths defined in pixels
  - Very common as they give the developer more control over layout and positioning
- Downsides
  - Do not make good use of the available space: columns are always the same size no matter the window size
  - Usually work well with the browser default text size, but if you increase the text size a couple of steps, sidebars start running out of space and the line lengths get too short to comfortably read

Liquid layouts

- Dimensions are set using percentages instead of pixels
    - Very efficient use of space
- If the design spans the entire width of the browser window, line lengths can become long and difficult to read
    - Solution: make the wrapper span just a percentage, e.g. 85 percent
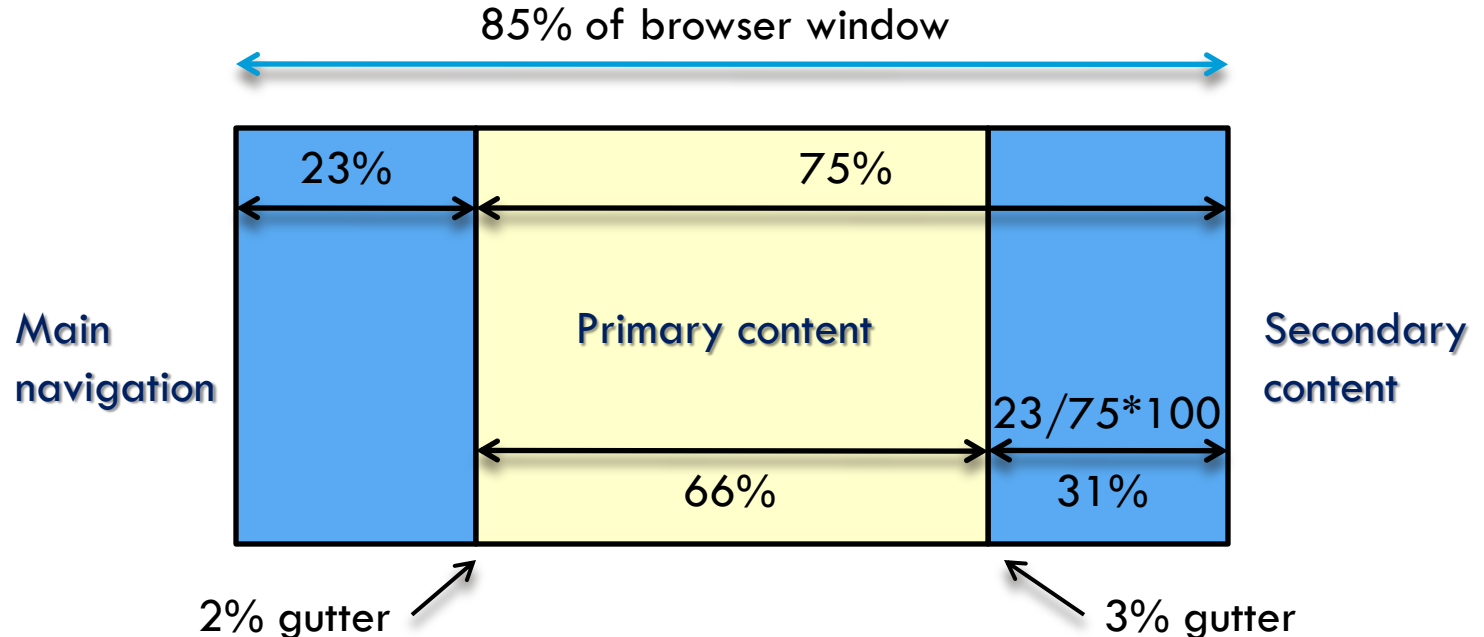
```
#wrapper {
width: 85%;
}
```

Liquid layouts

- Set the width of the navigation and content areas as a percentage of the wrapper width
  - 2-percent virtual gutter between the navigation and the wrapper to deal with any rounding errors and width irregularities that may occur

```
#wrapper {
width: 85%;
}
#mainNav {
width: 23%;
float: left;
}
#content {
width: 75%;
float: right;
}
```

Liquid layouts

- The widths of the content divs are based on the width of the content element and not the overall wrapper
  - Width of secondary content area = width of the main navigation area?

85% of browser window

Main navigation 23%	**Primary content** 75% — 66%	**Secondary content** 23/75*100 — 31%

2% gutter

3% gutter

Liquid layouts

- 3 columns liquid layout

```
#wrapper {
width: 85%;
}
#mainNav {
width: 23%;
float: left;
}
#content {
width: 75%;
float: right;
}
```

```
#mainContent {
width: 66%;
float: left;
}
#secondaryContent {
width: 31%;
float: right;
}
```

Three columns liquid layout

1152x900

1024x768

800x600

Examples/chapter08/3-col-liquid.htm