

software studio

structure of the web

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resources



Tagger.java



manifesto.txt



gowin-019.jpg



your-song.m4a



tube-map.pdf

resource has

- › name
- › location
- › representation

URI, URN, URL?

what do they mean?

- › URL: uniform resource location
- › URN: uniform resource name
- › URI: uniform resource identifier

URI = URL \cup URN

does this matter?

- › strictly speaking, browser gives server a URI
- › content negotiation may turn it into a URL

my opinion

- › just as in programming languages, names can expose representation and location

URI structure

`http://sdg.csail.mit.edu/projects.html`

scheme

domain name

file path

`http://bank.com/dep?acct=12&amt=10`

action

query string

HTML and CSS

markup languages

- › SGML was the earliest (1974)
- › separation of semantics & presentation

HTML added

- › interaction: fields, forms, scrollbars, etc
- › hypertext: links

```
1 <!DOCTYPE html>
2 <head>
3 <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
4 <title>Alloy</title>
5 <link rel="stylesheet" type="text/css" href="css/custom2.css" />
6 <link rel="stylesheet" media="screen" href="css/custom2.css" />
7 <link rel="stylesheet" type="text/css" href="css/custom2.css" />
8 <link rel="stylesheet" type="text/css" href="css/custom2.css" />
9 <link rel="stylesheet" type="text/css" href="css/custom2.css" />
10 </head>
11
12 <body >
13
14 <div id="container" >
15
16 <div id="header" class="full" >
17   <ul>
18     <li><a href="index.html" >Home</a>
19     <li><a href="community.html" >Community</a>
20     <li><a href="download.html" >Download</a>
21     <li><a href="documentation.html" >Documentation</a>
22     <li><a href="book.html" >Book</a>
23     <li><a href="applications.html" >Applications</a>
24     <li><a href="people.html" >People</a>
25     <li><a href="thanks.html" >Thanks</a>
26   </ul>
27 
28 </div>
```

```
38
39 li {
40     margin-bottom: 5px;
41 }
42 #header li {
43     margin: 0px;
44     padding: 0px;
45     display: inline;
46     list-style-type: none;
47 }
48
49 #header ul a:link, #header ul a:visited {
50     margin: 0px;
51     margin-left: -5px;
52     padding: 5px 15px 5px 15px;
53     text-decoration: none;
54     text-align: center;
55     font-weight: normal;
56     color: black;
57     display: inline-block;
58     border-right: 1px solid #bbbbbb;
59     border-left: 1px solid #bbbbbb;
60 }
61
```

links and anchors

```
<li><a href="book.html">book</a></li>  
<li><a href="applications.html">applications</a></li>  
<li><a href="people.html">people</a></li>  
<li><a href="thanks.html">thanks</a></li>
```

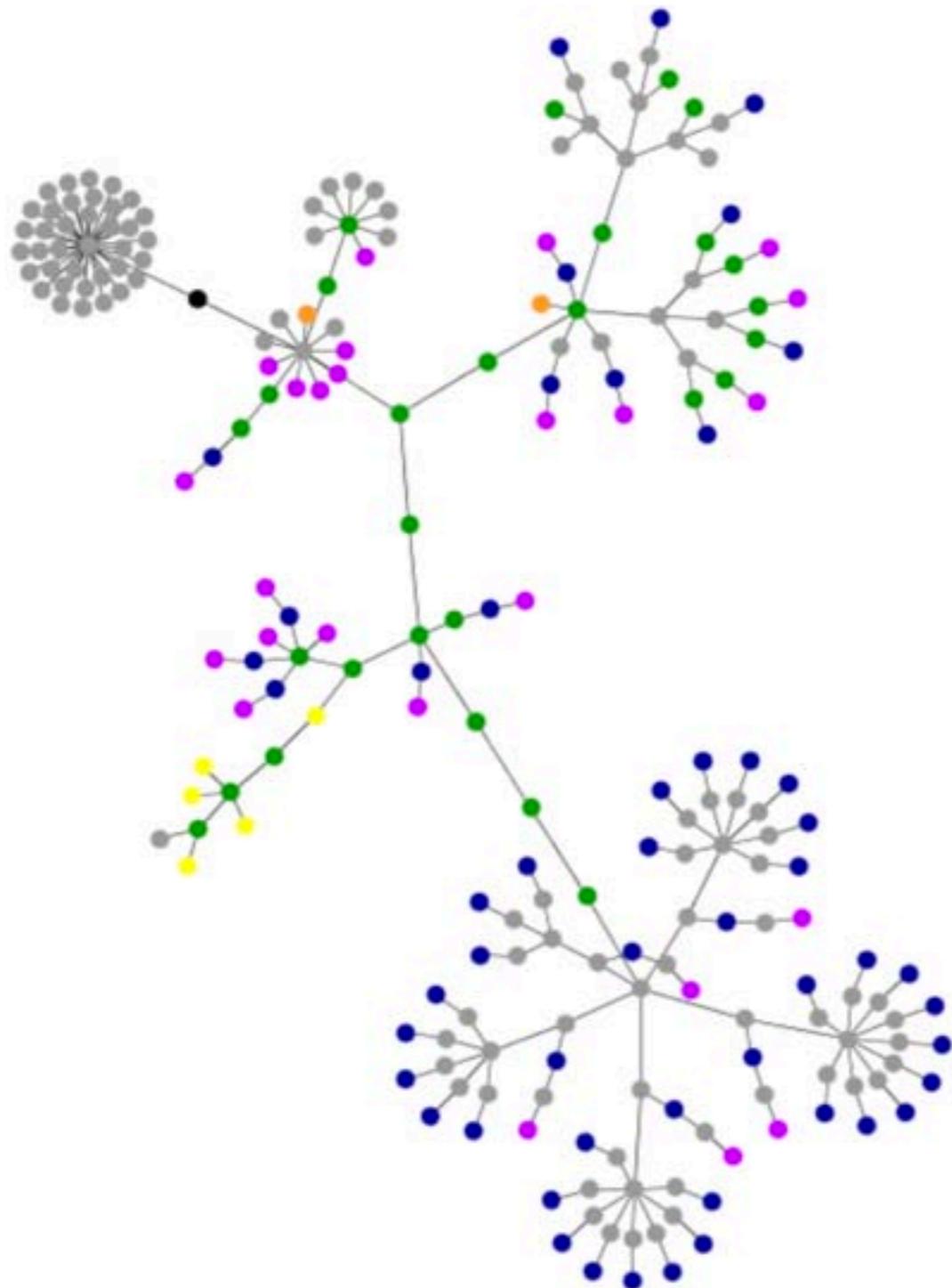
anchor

- › a resource or an element within a document

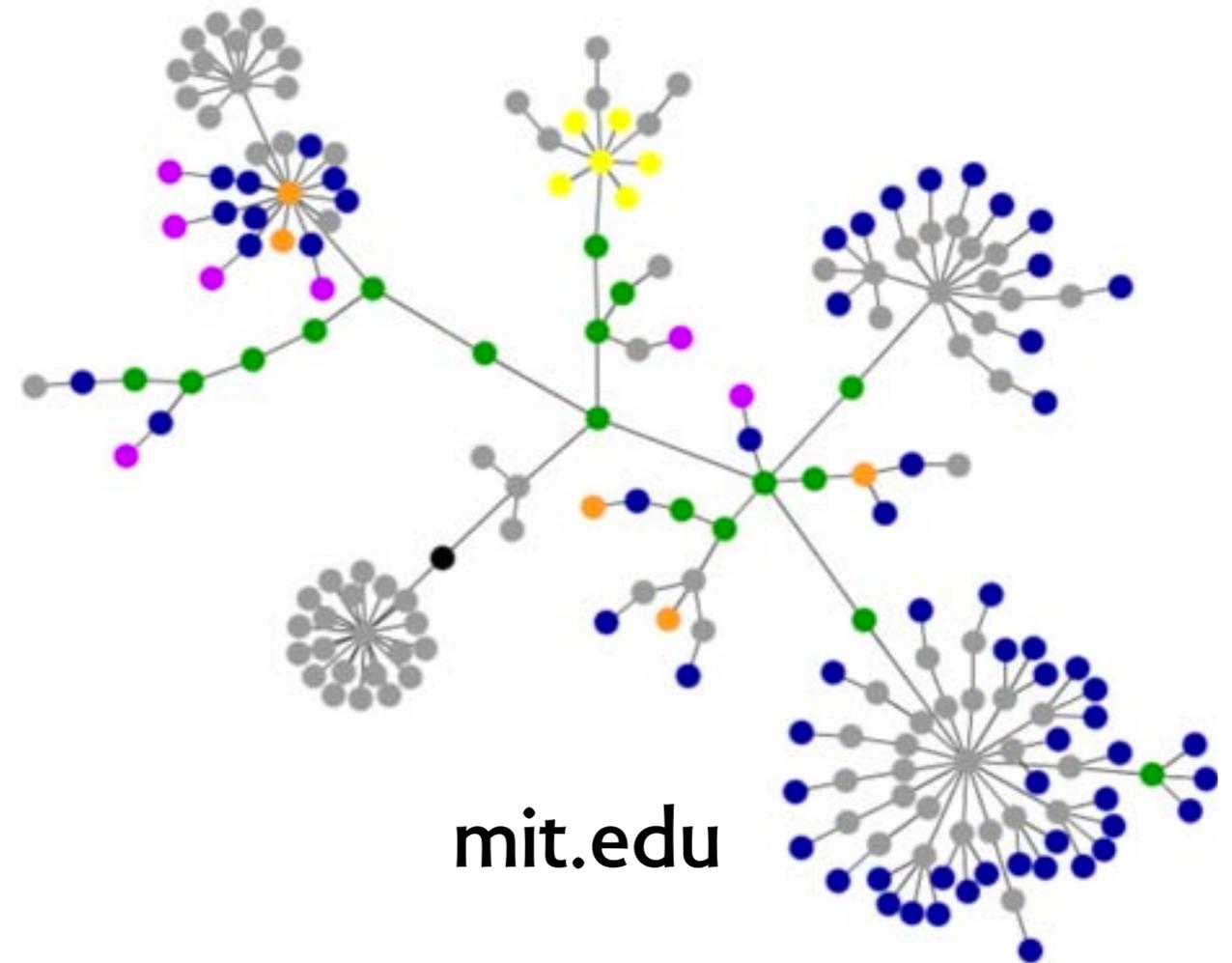
link

- › connection from a source to a destination anchor

link graphs of the web



csail.mit.edu



mit.edu

relative URIs

type in a JavaScript console:
`console.log(document.baseURI)`

relative URI

- › no scheme
- › no domain name
- › relative path

base URI

- › used to resolve it

examples

- › base URI: `http://www.acme.com/intro.html`
- › `Suppliers`
- › resolves to `http://www.acme.com/suppliers.html`

who resolves? browser or server?

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