Web design and implementation

Web design

- It’s another type of publishing
  - Your web site is you shop window – people will judge your company on it
  - Web publishing is no different from other types of publishing
  - Spelling, grammar, point size, broken links, incorrect captions
  - Social networking sites make this available to all
- Get the domain name right
  - Inventive: business.com vs PlentyOfFish (dating site)
- Design is important
  - But functionality more so
  - Integrate good design with backend databases

- http://www.webpagesthatsuck.com
  - http://www.dokimos.org/ajff/

Web design mistakes

- Ego: Believing people care about you and your website
  - Why are they looking at your site?
  - What are they trying to do?
  - Do you help then achieve THEIR goals?
- Can't figure out what your website is about in less than four seconds
  - http://www.genicap.com/Site/
- Contrast Contrast Contrast
- Mystery Meat
  - Navigation you have to roll over
  - Zero intelligible content
  - http://www.theosbrinkagency.com/
- Too much stuff
  - http://www.arngren.net/

More Common mistakes

- Huge images
- Distracting colour schemes
- Flashing gifs, scrolling text
- Music
- Unclear navigation
- Unreadable
- Cluttered

- **Useless Title**
- **Zero intelligible content**
- **Refuses to work with IE**
- **Only works with IE**
- **Requires Flash**
- **Assumes screen size**
- **Assumes font size**
- **Contains errors**

www.webpagesthatsuck.com

Navigation

- Navigation is important
  - Make the navigation clear
  - Three clicks maximum to get anywhere
  - Hard when Sainsbury's have 25,000 line items
  - Consistent position/action
    - Logo top left and takes you home
  - Search

TEXT

- http://www.mrbottles.com/
- Consistent font
  - One family
  - Care on colour/size
  - Fonts carry a subtle implicit message
    - Serif or San Serif?
    - **Loud** *Soft* STRANGE Respectable Old fashioned

Poor design example

Poor design example

Title seems to be confused with keywords

Mixture of fonts

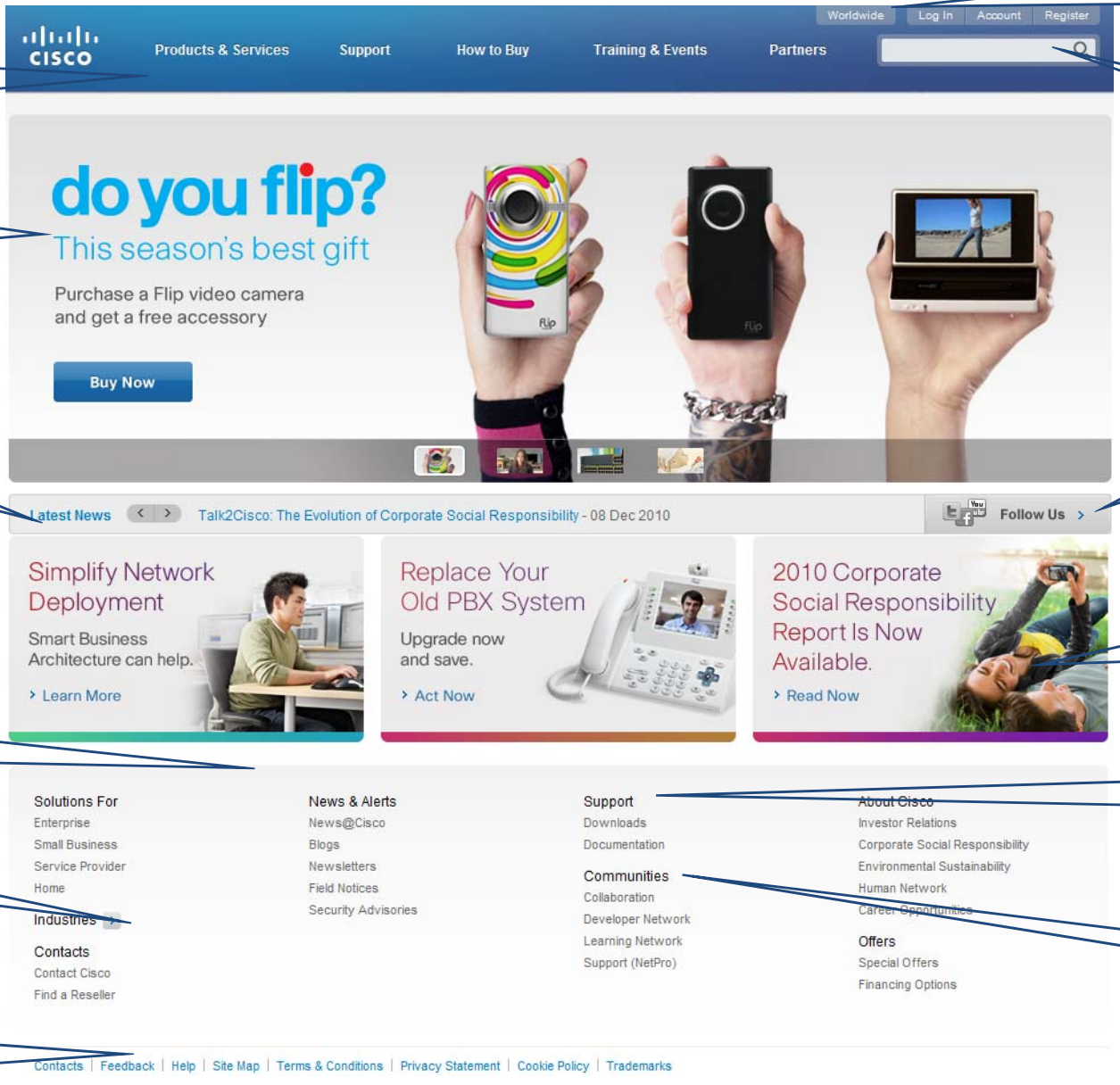
Far too much material

Navigation a mess

Needs more than 1024x768

Lingscars.com

Good design example



Consistent navigation

Call to action

Recent news stories

Quick links to sub areas

Flip-up menu

Consistent navigation

Services for subscribers

Search clearly available

Social media

Special event links

Technical support

Communities

Protected and encrypted pages

- Most web sites are open to all
- Protected pages for
  - Subscribers, Suppliers, Customers, Staff
  - Protected by
    - Username / pw; IP address; Domain name of browser
    - Combinations of these
- Most traffic to and from web sites is in clear
  - Potential eavesdropping possible
  - Secure Socket Layer (SSL) encrypts data
- Widely used technology
  - Used whenever privacy is important
    - Payment
    - Secure communication (spooks, terrorists, medical)

Static and Dynamic pages

- HTML forms
  - Fill in fields
  - Press button to submit data
  - Validate locally using Javascript
  - Remember user input when redrawing form
- HTML with extra tags pre-processed
  - Java Server Pages (JSP)
  - Active Server Pages (ASP)
  - PHP
- Complete content management systems
  - Signiant, Vignette, Joomla, Drupal etc
  - Content and style kept distinct – can adapt for target
  - Dynamic pages added as extensions, many already in libraries
  - Complex javascript frameworks (Jquery, MooTools, Prototype)

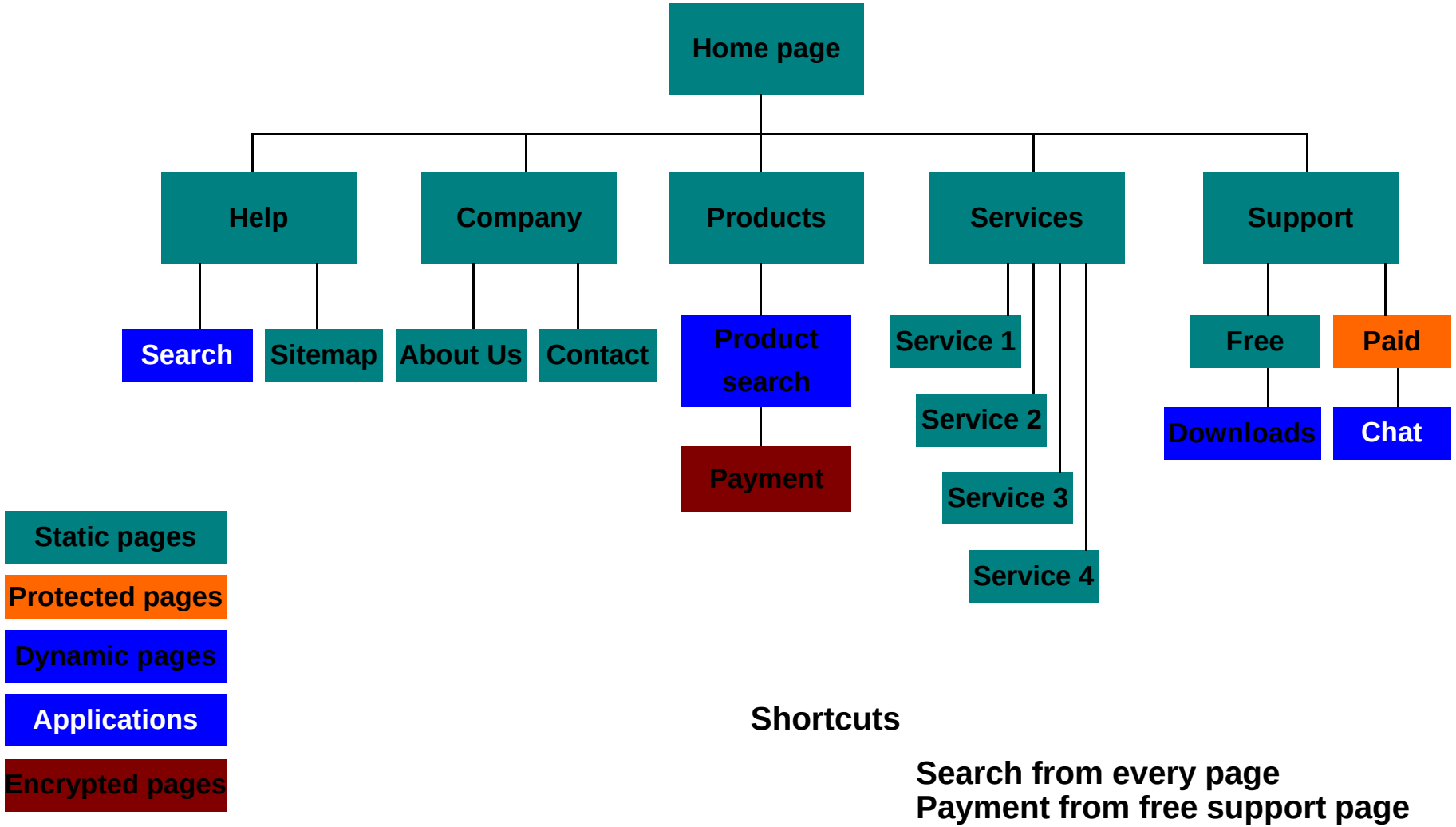
Improving the experience

- AJAX: Asynchronous Javascript and XML
  - XMLRequest calls as data entered
    - No need to refresh entire web page
    - Immediate field verification
    - Google suggestions and Instant
- Web apps that compete with local ones
  - Sproutcore for iPhone apps
  - HTML5 includes geolocation, local storage
  - Google Web Toolkit
    - Java compiler produces Javascript
      - That works with all browsers
      - That can be tested using standard Java IDE
    - http://code.google.com/webtoolkit

Search Engine Optimisation

- Links from other domains
- Page titles – each page different
- Meta tags
- Anchor and alt text
- Robots.txt

Page transition diagram



Shortcuts

Search from every page
Payment from free support page

Online decisions

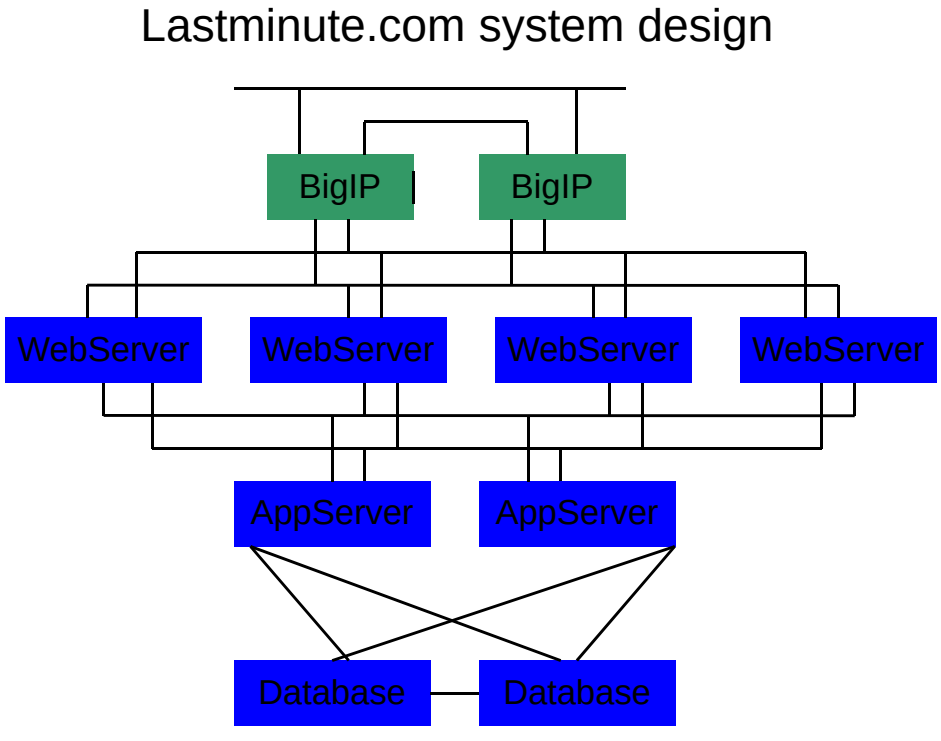
- User logon required?
- Remember credit card details?
- Same price for everyone?
- Special offers (free delivery if over $100 spent)
- Backend integration?
- Help desk support?
- Online credit checking?
- Order picking?
- Online stock shown?

Consumer Generated Media

- General model funded by adverts
  - Layout generated by owners, content by users
  - FaceBook, MySpace, YouTube, Twitter, Blogs
  - Instant feedback to ideas and huge audience
    - Seen as important tool in UK election
    - Modern version of “on the stump” heckling
  - Companies see need to participate
    - Over 50% of shoppers who use social media follow / friend brands
    - But it can bite them back
- Consumer review sites eg tripadvisor, lateroom
  - Some ad income, other income from hotels listed
    - Offers analytics, right of reply
  - Unclear in some cases whether people had actually visted
- Wikis
  - Widely used as informal knowledge sharing tool

Outline Physical Design

Load balancer	Big IP
Web Server (static data)	Apache
Application Server (business logic)	J2EE
Database server (orders)	OPS
Legacy (stock control)	IBM

Sizing

- Scalability
  - How many people?
  - At the same time?
- Number of products
- Size of downloads
  - Ring tones 10K
  - Music 4M
  - Software 200M