

Web design and implementation

Web design

- **It's another type of publishing**
 - Your web site is your 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 them 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

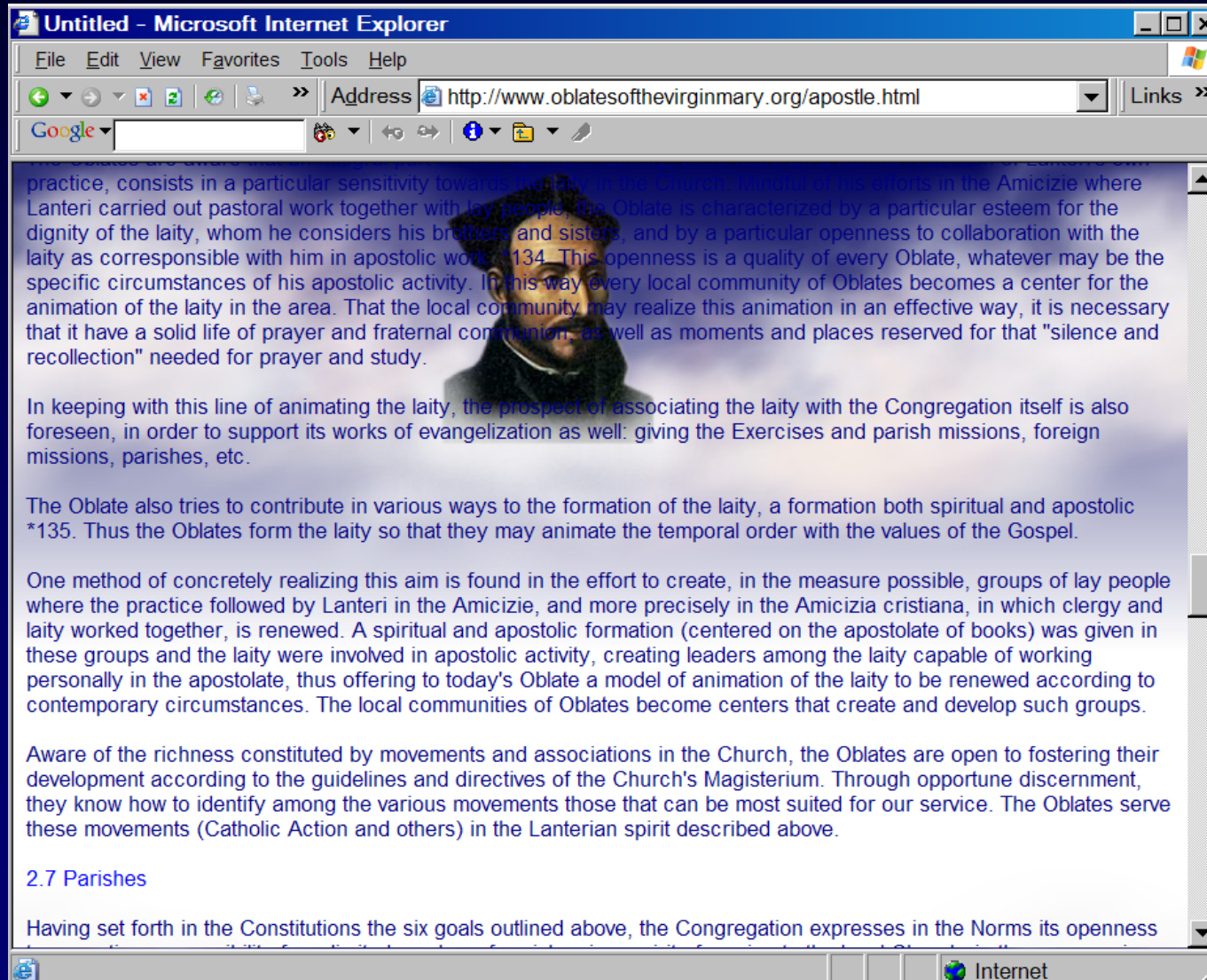
- **Navigation is important**
 - Make the navigation clear
 - Three clicks maximum to get anywhere
 - Hard when Sainsbury's have 25,000 line items

 - 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

Far too much material

Mixture of fonts

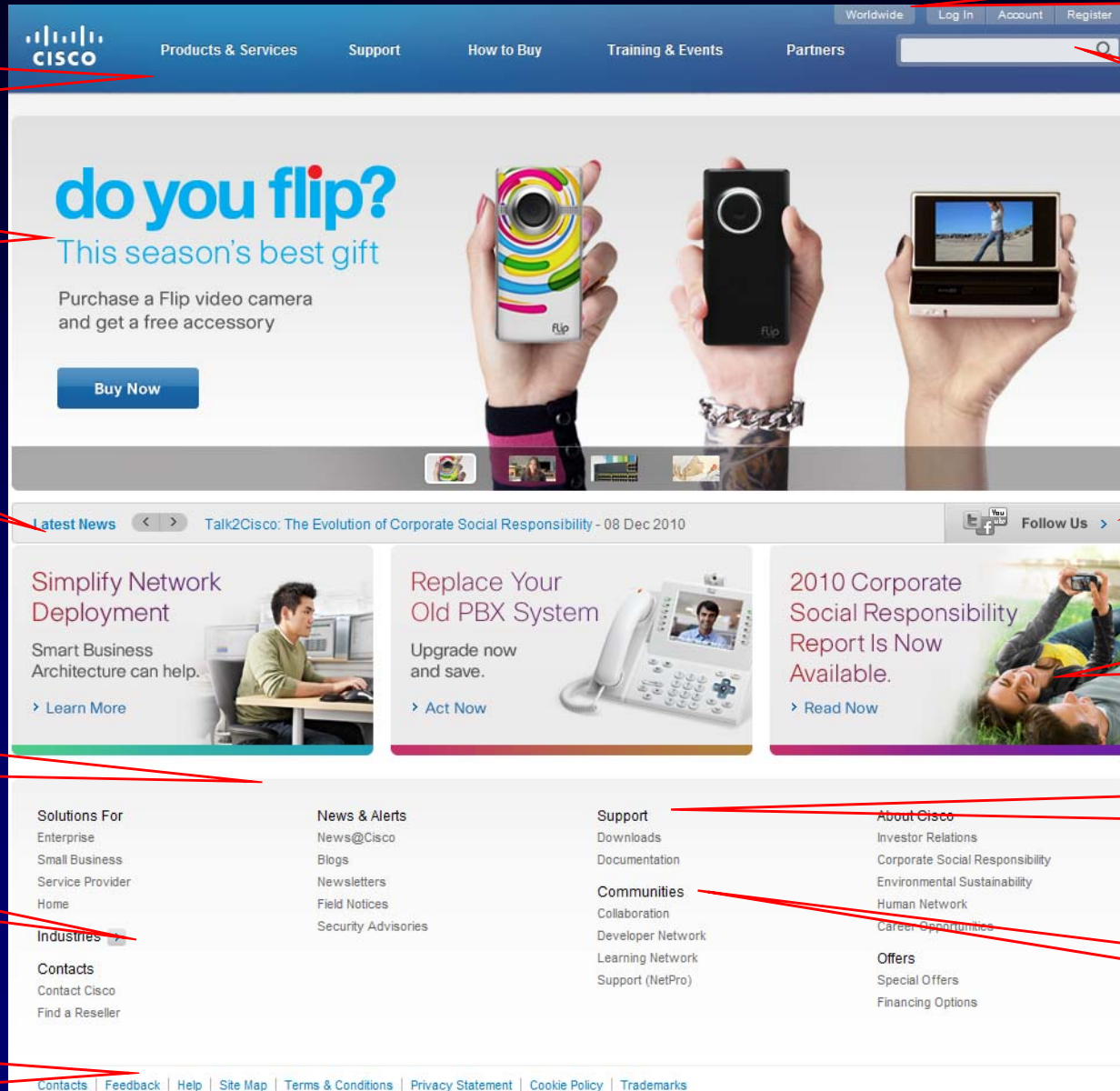
Navigation a mess

Lingscars.com

Needs more than 1024x768



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)

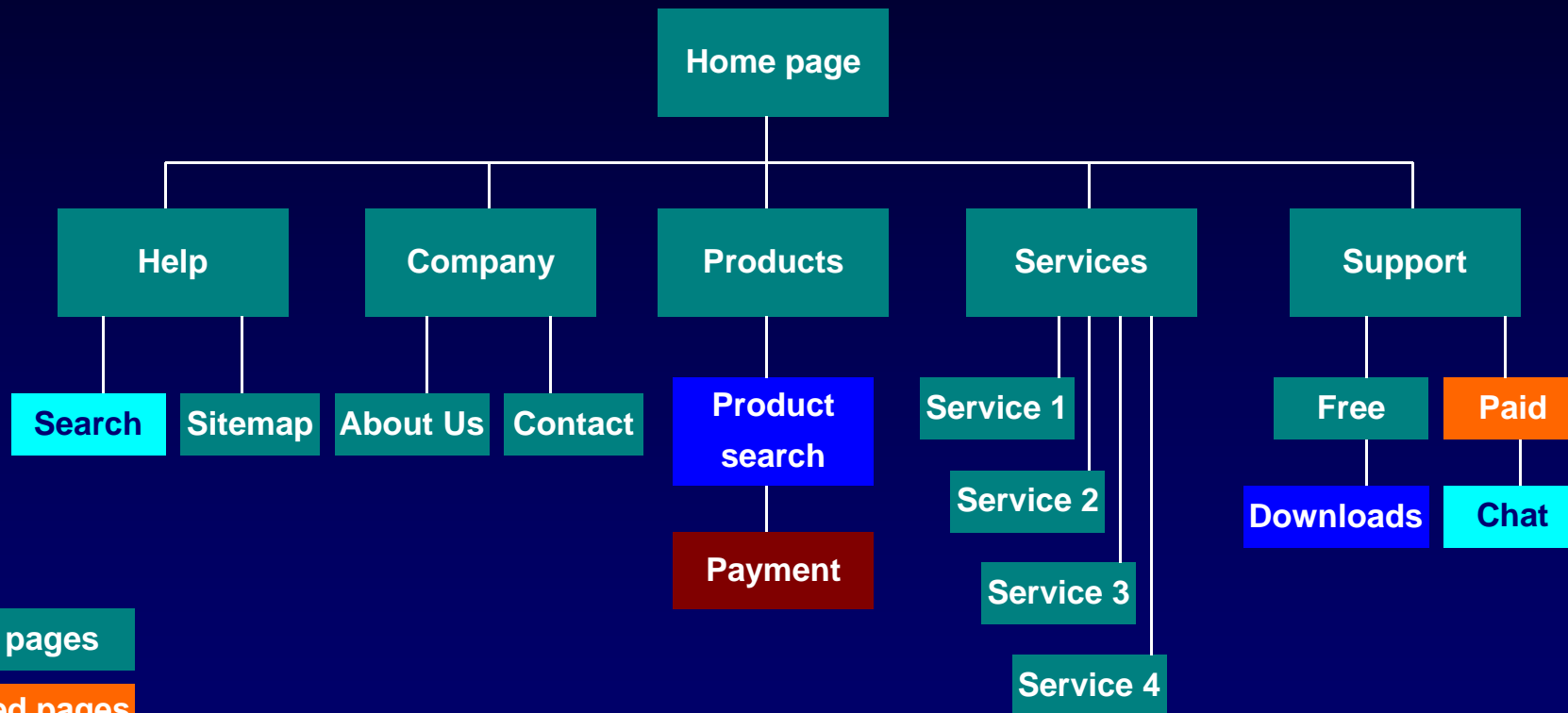
Improving the experience

- **AJAX: Asynchronous Javascript and XML**
 - XMLHttpRequest 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



- Static pages
- Protected pages
- Dynamic pages
- Applications
- Encrypted pages

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?
- Delivery extra – options - reliability

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
 - Movie 2G
- **Reliability**

Lastminute.com system design

