SGG 3643
Computer Programming III

Structure and Design of Web Pages

Ivin Amri Musliman

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Designing & Structuring a Web Page:

- Content
- Structure & navigation
- Visual design
- Interactivity
- Functionality

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Tagline

- Your tagline must explain what you do and what makes it unique among others. Two questions can help you assess your own tagline:
  - Would it work just as well for others?
  - Would any person ever claim the opposite?

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Web References

- Design Concepts: http://www-3.ibm.com/ibm/easy/eou_ext.nsf/Publish/567PV
- Web design guidelines: http://www-3.ibm.com/ibm/easy/eou_ext.nsf/Publish/572PV
- Yale Stile Guide: http://www.webstyleguide.com/index.html?/contents.html

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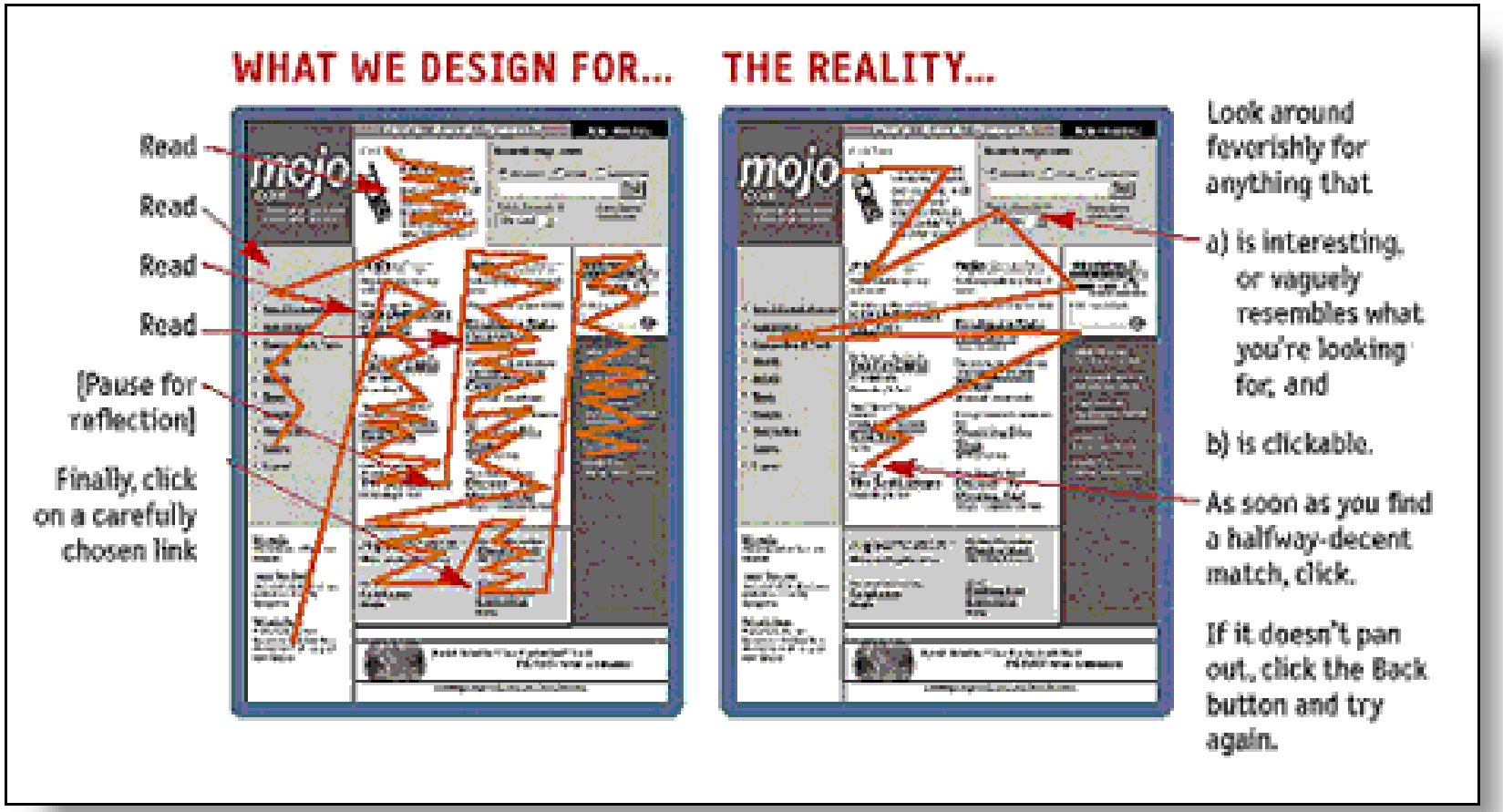

Source: Steve Krug: Don't make me think!

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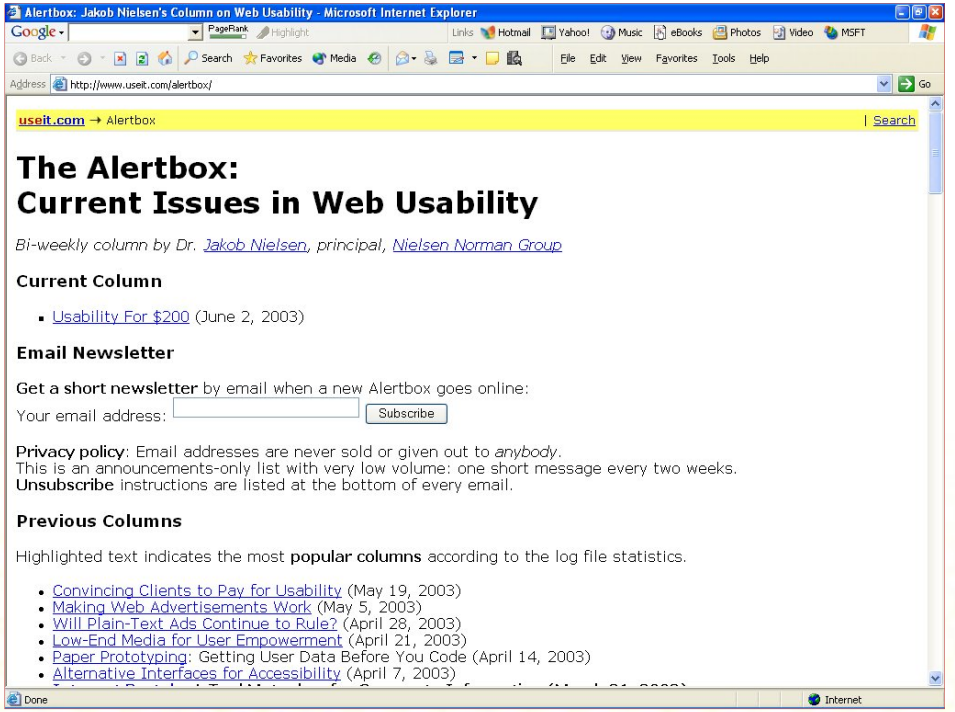
Web Site Styles: Text only Sites

- Few graphics, white background, and black text.
- Advantage: often such sites favor content to design & graphics.
- Disadvantage: text only pages will be uninteresting to some users.

http://www.useit.com



Source: http://www.webguild.org/visualdesign/presentations/VDPresentation061103.ppt

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Web Site Styles: Graphic Only Sites

- Information reduced into a corner or small boxes.
- Advantage: great looking site/visual appeal.
- Disadvantage: less content rich; more intricate & difficult to use; longer load & display time can lose audience.

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Web Site Styles

- These two examples represent the “extremes” of web design.
- Your site will fall between these two trends.
  - Successful web site design strikes a balance between the visual and the information.
  - The two elements must blend together in a unified piece of design.
  - The role of graphics is that of enhancing the readability and perception of the message.

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General Web Page Content

Logo (usually upper left corner)

Tag line

Navigation

Content

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- Use of color to differentiate grids of content.
- Reduced size of graphics, used in key areas.
- Minimized use of gif text.

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Navigation

- **Navigation** is a spatial metaphor used to describe the user's process of selecting content and completing tasks in an information space.

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Investigating Navigation Directions

- There is more than one solution
- There is not always a “best” solution
- Tradeoffs and decisions during the design process:
  - Software limitations
  - Screen size
  - Stakeholder preferences
  - Size of site – number of categories, pages
  - Site Goals / Audience
- There is rarely a formalized process during design

Source: Reshma Kumar & Marina Naito Trends in Web Design

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Global Navigation Examples

- List Styles
  - Menu List
  - Circular List
  - Directory (yahoo.com)
  - Modular
- Horizontal Styles
  - Horizontal Nav Bar/Tabs (amazon.com)
  - Horizontal Pulldown (adobe.com)
  - "L" Shape (ibm.com)
- Vertical Styles
  - Left Nav Bar (nytimes.com)
  - Right Nav Bar (audi.com)
  - Left Nav with Rollover (msn.com)
  - Left Nav with Spillopen (microsoft.com)

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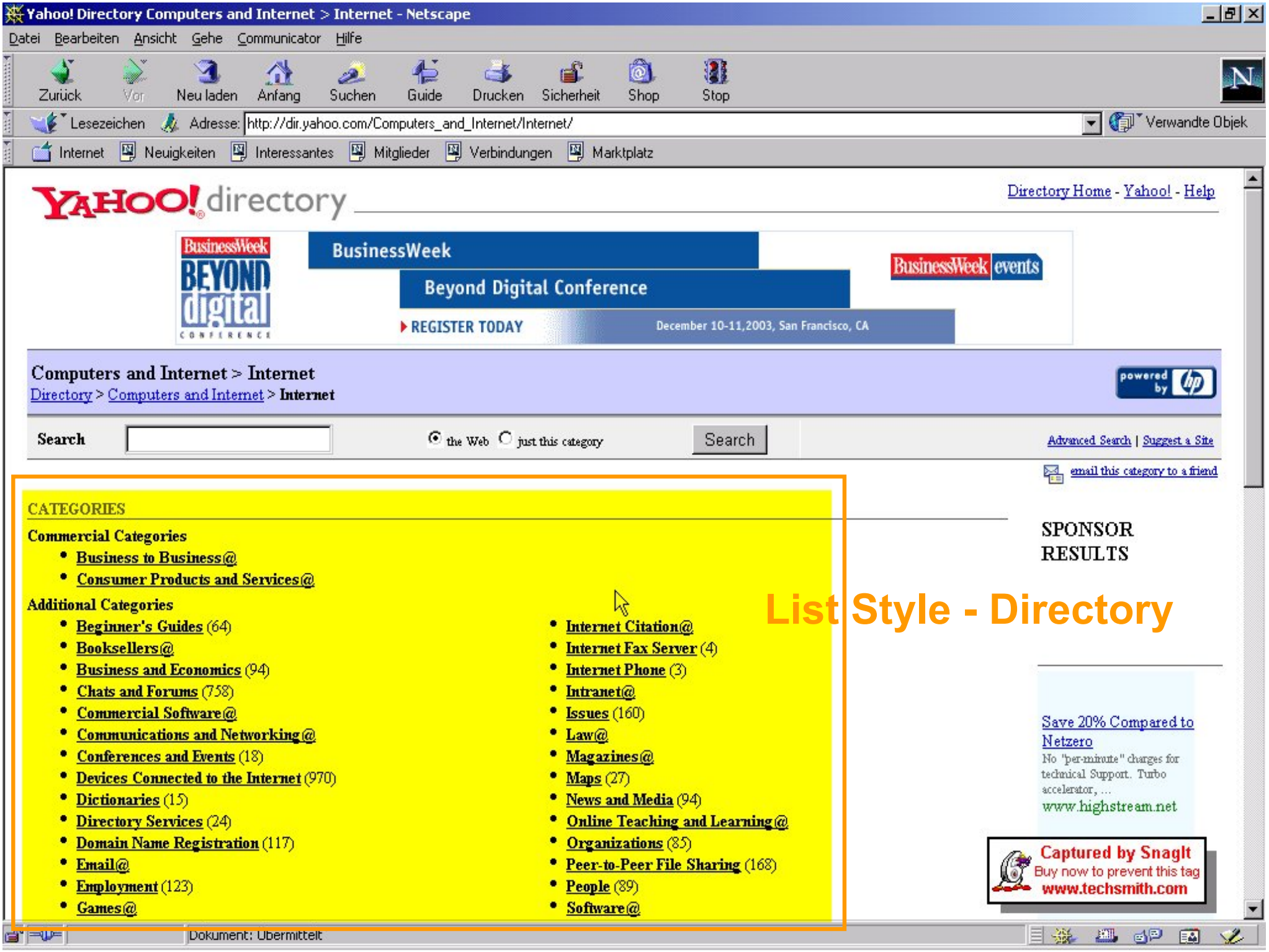
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Amazon.de: Willkommen - Netscape

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Horizontal Style - Tabs

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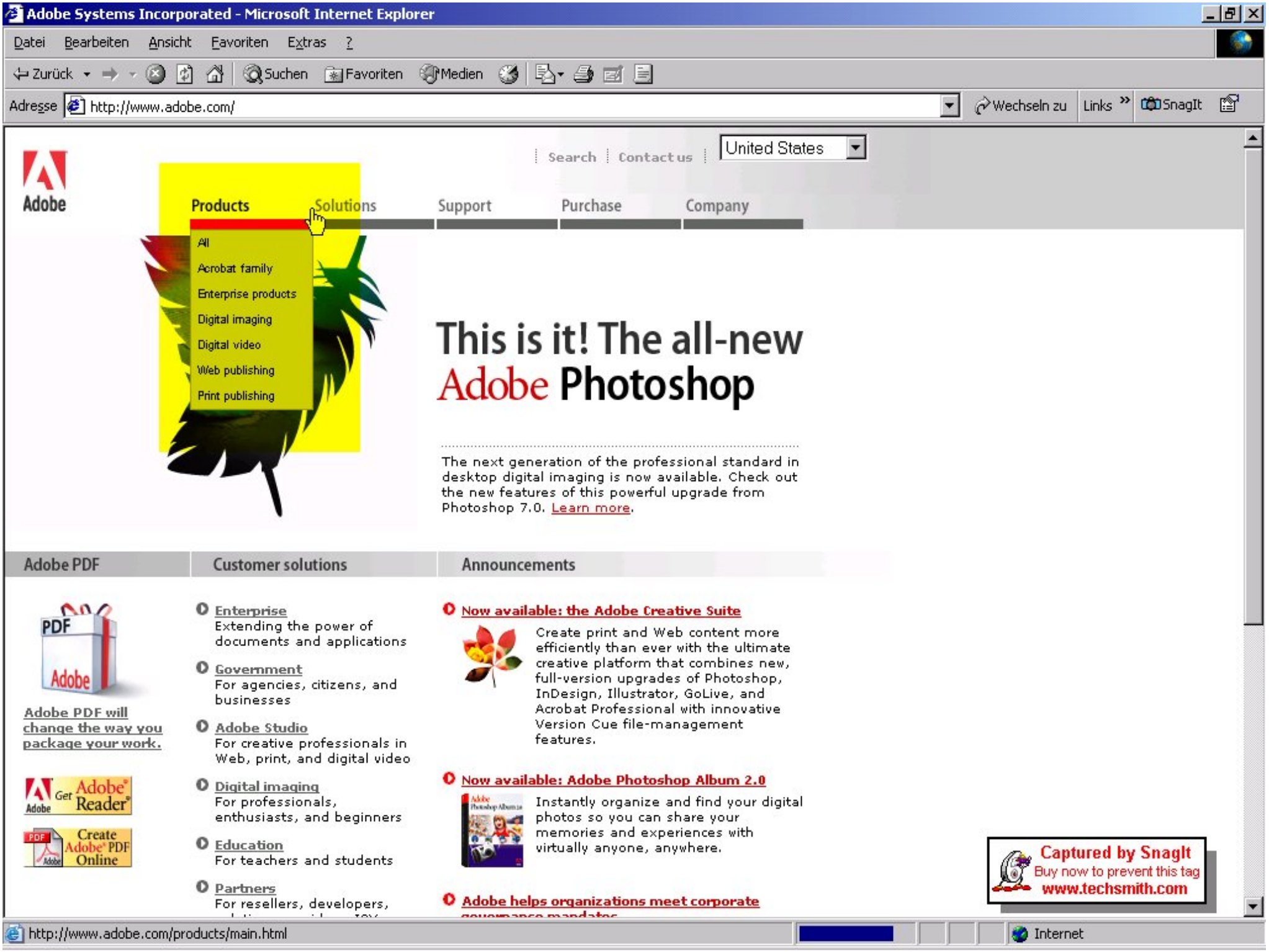
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Defying Davis, Two Democrats Say They'll Run in Recall Vote

By DEAN E. MURPHY

Gov. Gray Davis was also dealt a sweeping legal setback when the California Supreme Court refused to intervene in the recall.

- Audio: Dean Murphy in California
- Hollywood Is All Eyes
- Complete Coverage: Recall Election

NEWS ANALYSIS

New, Soft Targets in Iraq: Bombing Shifts the Focus

By MICHAEL R. GORDON

The car bomb that ripped apart the Jordanian Embassy has presented the American-led occupation with a new and unpredictable threat.

- 11 Die as Car Bomb Hits Jordan's Embassy
- Bombing in Baghdad: Slide Show | Video
- Complete Coverage: After the War

Younger Blacks Tell Democrats to Take Notice

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Shannon Stapleton for The New York Times

Food Shopping in the Fast Lane

The founder of FreshDirect, the hot online grocery business, believes he has found a way to satisfy a city's passion for good food minus the drudgery of actually shopping for it. Go to Article

INTERNATIONAL

Israel Reportedly Willing to Delay Portions of Barrier

READERS' OPINIONS

Summer Trips

The summer is almost over. Where did you go? Share stories about your vacations, weekend getaways or summer rentals.

- Go to Readers' Opinions

Discovery Times

Page One

A three-minute video newscast from the Discovery Times Channel.

The New York Times PAGE ONE

MOVIES.NYTIMES.COM

'S.W.A.T.'

The feature-film version of the 1970's cop series is mostly

Vertical Style – Left Nav

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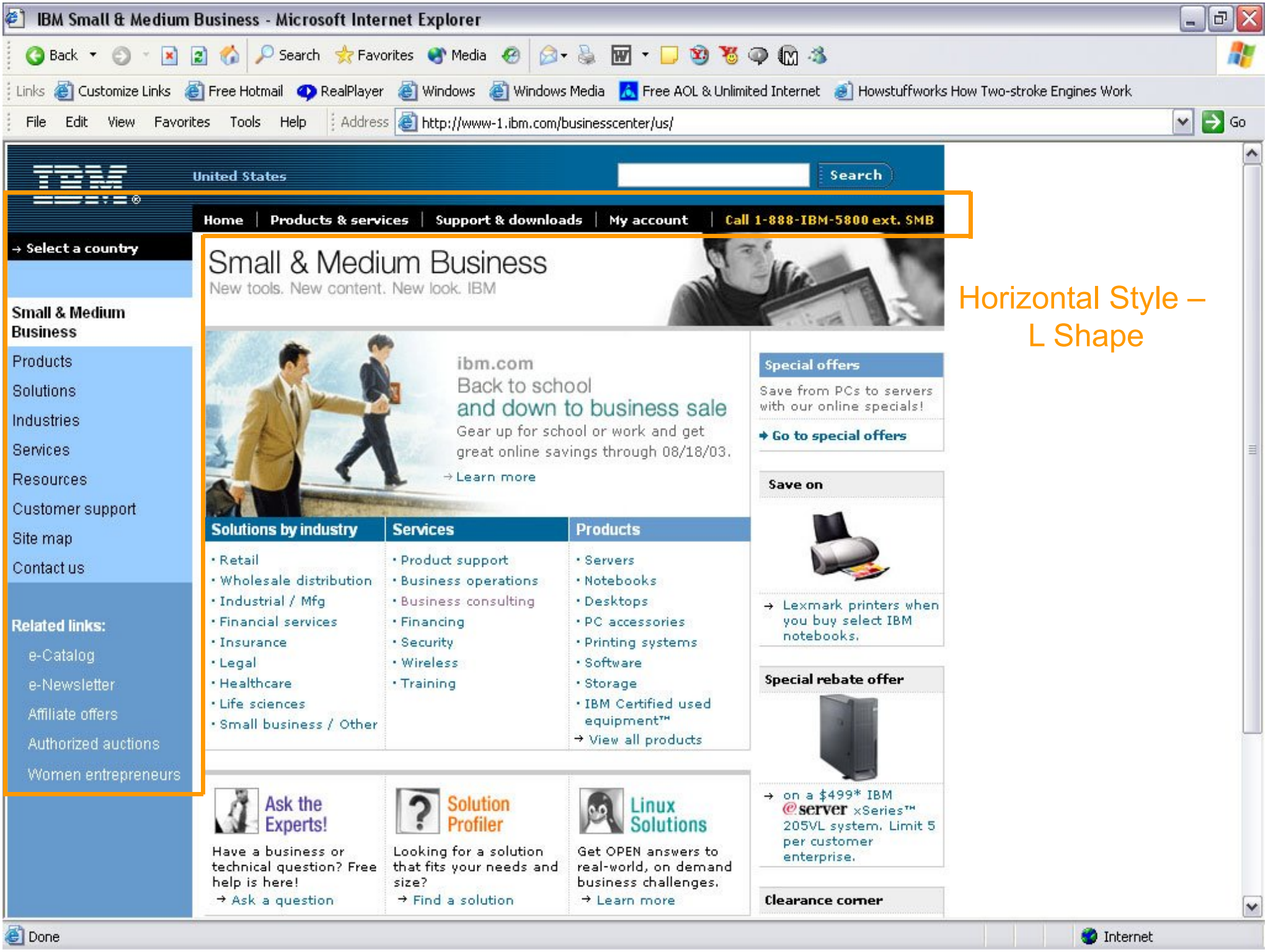

Horizontal Style – L Shape

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Global and Local Navigation

- Global navigation: Related to main topics
- Local Navigation: Specific to a section of the site
- Relationship to Global:
  - Tightly integrated global and local navigation – consistent and unified system (nytimes.com)
  - Large sites with multiple local navigation systems – (microsoft.com)
    - Little in common with global navigation
    - Aligned with user needs and local content (subsites)
- Where-am-I indicators

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Contextual Navigation

- Links specific to a page, document, object
- Embedded in the content and/or given its own space on the screen
- Access deep levels of information

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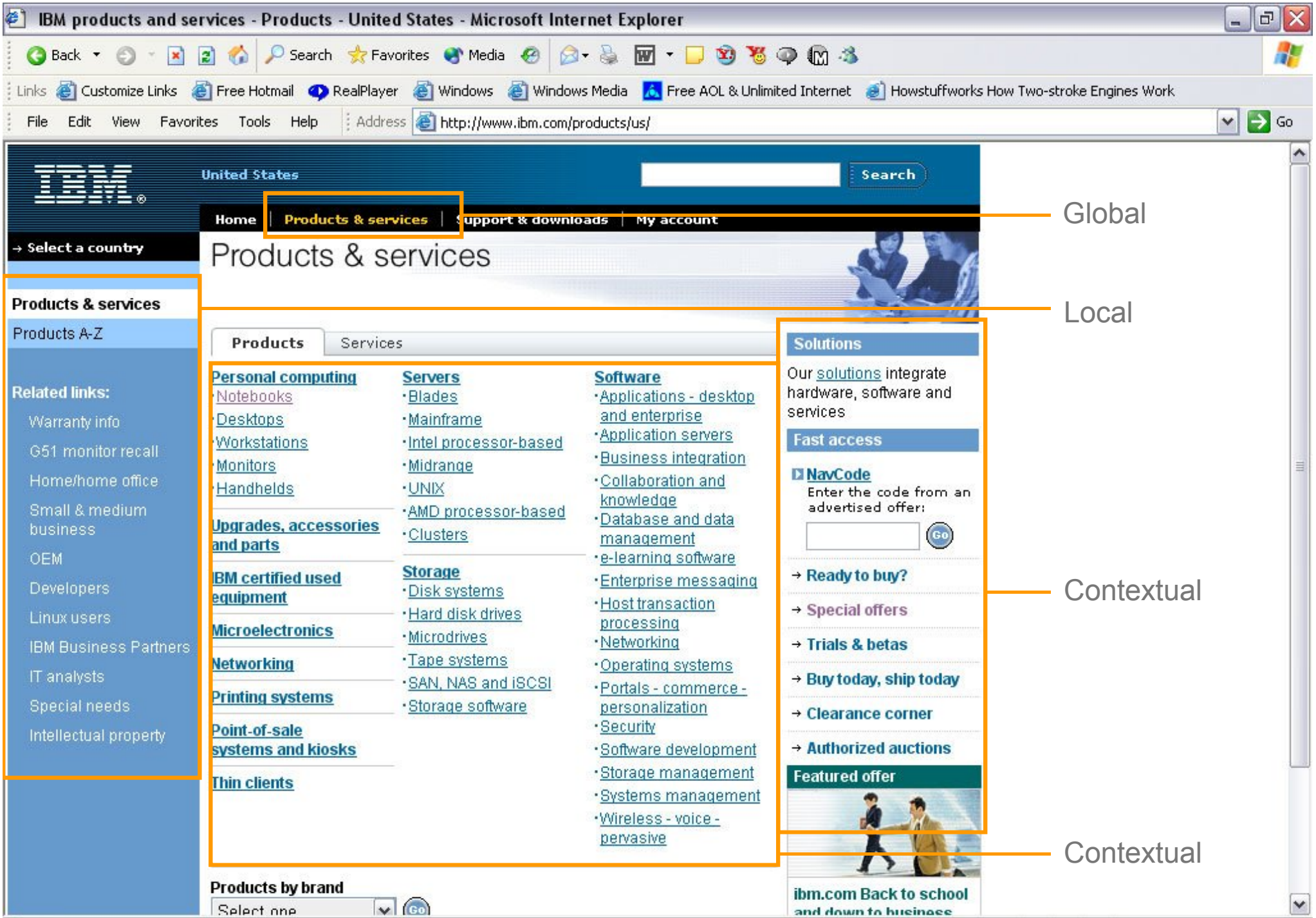
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UNIX
AMD processor-based
Clusters
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Hard disk drives
Microdrives
Tape systems
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Software
Applications - desktop and enterprise
Application servers
Business integration
Collaboration and knowledge
Database and data management
e-learning software
Enterprise messaging
Host transaction processing
Networking
Operating systems
Portals - commerce - personalization
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Our solutions integrate hardware, software and services
Fast access
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Navigation Visual Design

- Navigation systems are at their best when:
  - They explain the structure of a web site
  - Indicate where you are within that structure
  - Do not physically or visually overwhelm a page

- Visual organization of navigation choices:
  - Tells user what types of behavior they can expect from selections
  - Separate navigation from the rest of the page
  - Explains the distinctions between different navigation options

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Navigation Visual Design

- Navigation should not distract from content
- Visual design of the navigation reinforces site's personality
- Keep it clean
- Keep it consistent
  - Location, order, amount
  - Visual characteristics – color, type

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Visual Basics

- Manage the amount of visual contrast

- M *Are Here* (current location) indicators

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Navigation: Images vs HTML

- Images:
  - Precise control:
    - Cross-browser consistency
  - Greater design flexibility:
    - Anti-alias text, type choice, kerning, spacing
    - Shapes, textures, images
  - Use <ALT> tags for accessibility
  - Can be a lot of work…
- HTML:
  - CSS control
  - Less expensive to design and maintain
  - Faster download times

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Navigation: Images vs HTML

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The power of CSS

- Why use HTML and CSS:
- Easier to update / change
- Faster download times
- Don’t need graphics programs (Photoshop) to create images
- Limitations:
- Limited support in Netscape 4.X
- Limited type style choices

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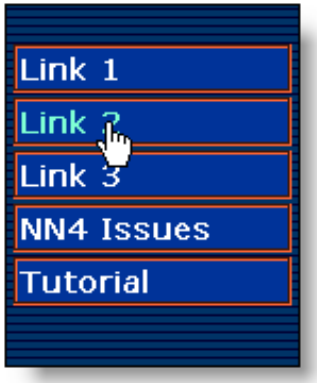
The power of CSS



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Pull downs & Rollovers

- Horizontal Pull downs
  - Not necessary for private home pages
  - Typical use in small, medium company sites
  - Mimics familiar software applications
  - Users can see site structure by rolling over menu items
  - Optimum maximum list size ~ 8
  - *JavaScript must be enabled*!
- Left Navigation with Rollovers
  - Sometimes hard to target link
- JavaScript Sources:
  - Dynamic Drive (http://www.dynamicdrive.com/)
  - Dreamweaver
  - DHTML Central (http://www.dhtmlcentral.com/index.asp)
  - Project Seven (http://projectseven.com/index.htm)
  - HierMenusCentral (http://www.webreference.com/dhtml/hiermenus/)
  - OpenCube (http://www.opencube.com/index.html)

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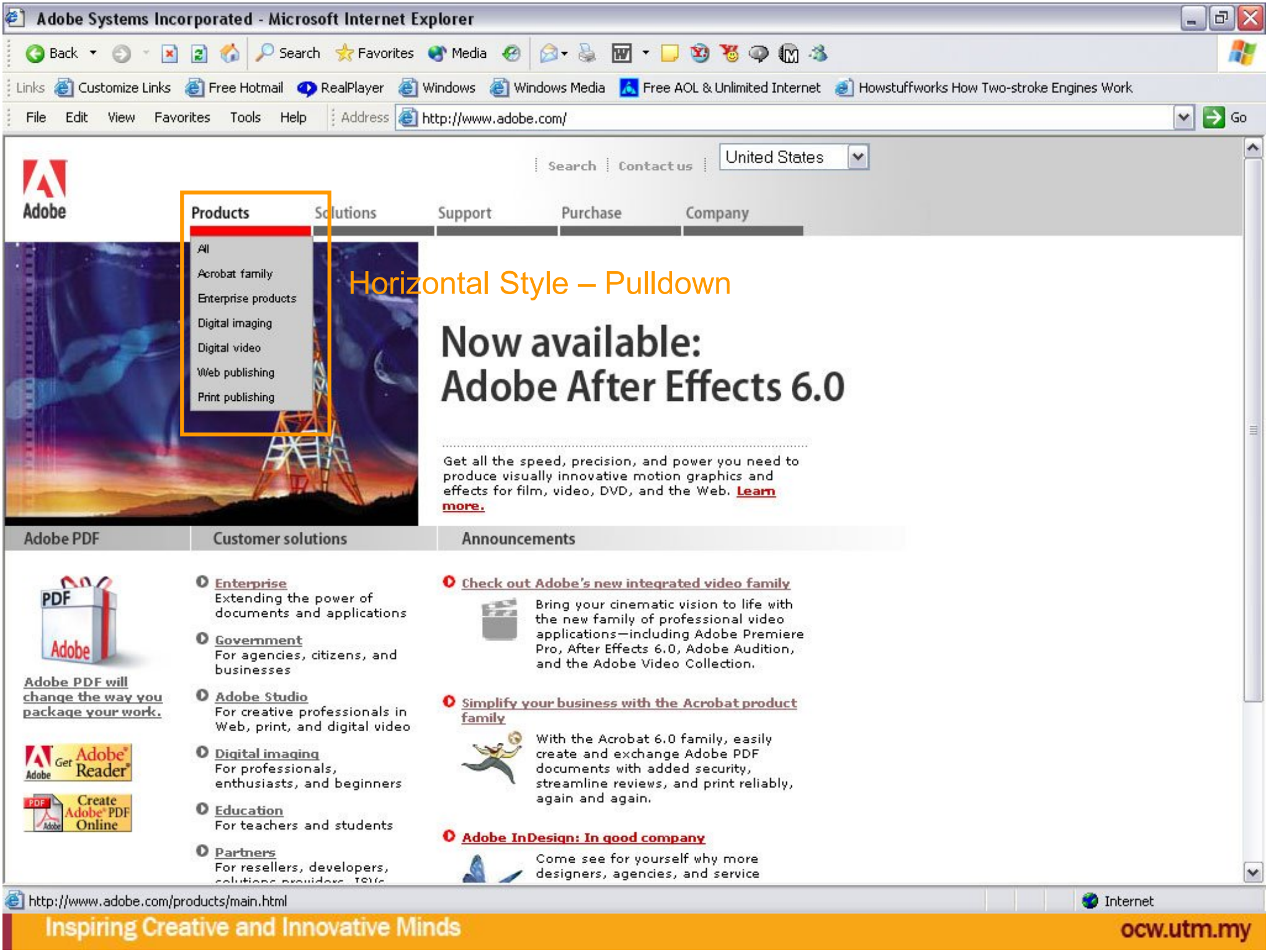
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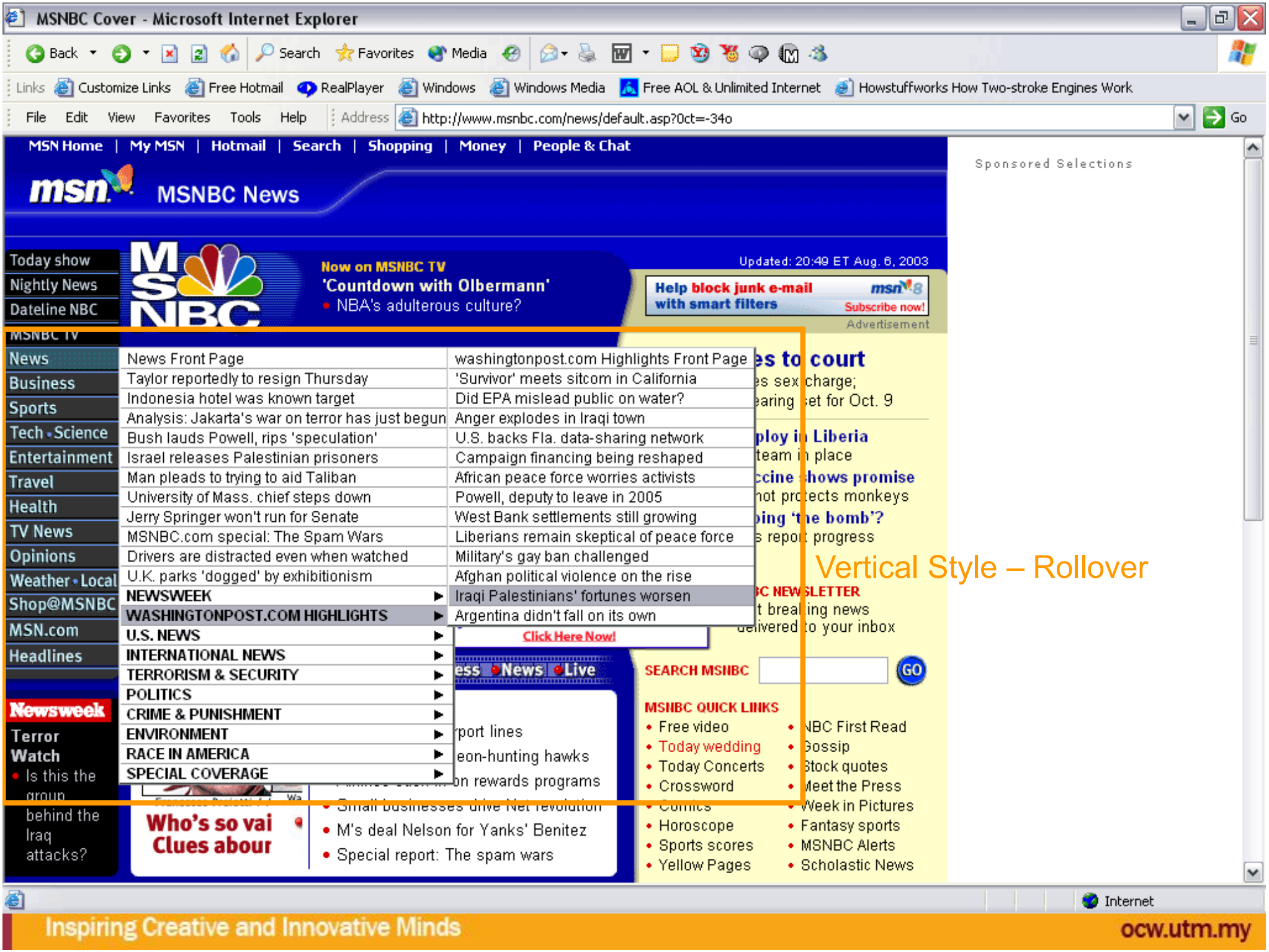
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The 2003 TT Roadster

TT Roadster

Passion. Spirit. Pure Pleasure.

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Every detail is by design, a careful and concise consideration of both form and function. From the gearshift to the air vents to gas cap, one circle after another. Available baseball-optic leather. Power glass windscreen. A heated glass rear window. Roll bars that not only protect, but give the TT Roadster structural rigidity rivalling most coupes.

Get closer

The TT Roadster offers a rare combination of sporting precision and pure open-air joy. See it, watch it, and explore it inside and out in the TT Roadster gallery.

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The 2003 TT Roadster

TT Roadster

- Showroom
- Features and Specs
- Gallery
- Reviews
- Compare
- Estimate Payments
- Build Your Audi

A4 Family
A4 1.8 T
A4 1.8 T Avant
A4 1.8 T Cabriolet
A4 3.0
A4 3.0 Avant
A4 3.0 Cabriolet

Home
See All Models
A4
TT
A6
allroad quattro
A8
Pre-Owned
Experience Audi
Shop the Collection
Financial Services
About Audi
My Audi

- Dealer Locator
- Audi Lexicon
- Search
- Contact Audi

Passion. Spirit. Pure Pleasure.

A striking expression of automotive idealism. A purity evident at first glance, a purity that stays with you. A simple consistency and singular focus that has led many to label the TT one of the most profound design statements of our time.

Every detail is by design, a careful and concise consideration of both form and function. From the gearshift to the air vents to gas cap, one circle after another. Available baseball-optic leather. Power glass windscreen. A heated glass rear window. Roll bars that not only protect, but give the TT Roadster structural rigidity rivalling most coupes.

Get closer

The TT Roadster offers a rare combination of sporting precision and pure open-air joy. See it, watch it, and explore it inside and out in the TT Roadster gallery.

- **Gallery**

TT

- Design
- Performance
- Technology
- Safety

http://www.audiusa.com/family_home/0,,familyId-1,00.html Internet

Navigation

- Use labels that clearly indicate the function of links
- Use labels that accurately describe the destination and/or resulting action of links.
- Avoid using meaningless labels such as "Go" or "Click Here."
- Instead, enable users to scan and quickly identify links they want to take.
- Vision impaired users scan for links using screen readers. For this feature to be useful, however, link labels must make sense on their own, or out of context.

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Navigation

- Use navigation elements consistently
- Once users see a link, they expect when they see it again it will look the same, be in the same location, and function the same.
- If it has changed, users may be forced to relearn the button, which will delay their completion of tasks.

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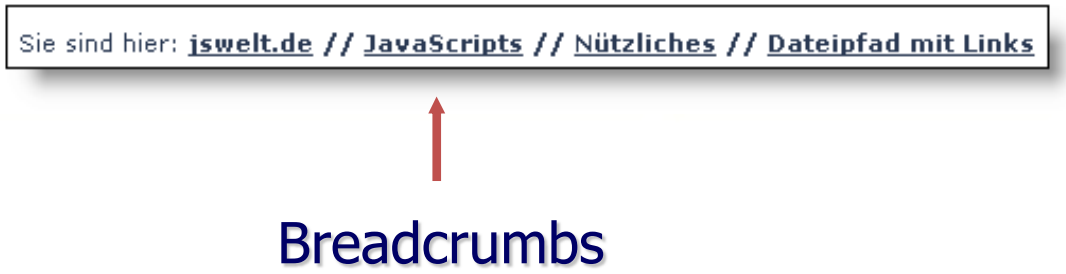
Breadcrumbs

- Provide feedback that tells users where they are in your site




```
<script language="javascript">
var path = "";
var href=document.location.href;
var s=href.split("/");
for (var i=2;i<(s.length-1);i++) {
path+="<A
HREF=\""+href.substring(0,href.indexOf(s[i])+s[i].length)+"/\">"+s[i]+"</A> / ";
}
i=s.length-1;path+="<A
HREF=\""+href.substring(0,href.indexOf(s[i])+s[i].length)+"\">"+s[i]+"</A>";
var url = window.location.protocol + "//" + path;
document.writeln(url);
</script>
```

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Use navigation elements consistently

- Once users see a link, they expect when they see it again it will look the same, be in the same location, and function the same. If it has changed, users may be forced to relearn the button, which will delay their completion of tasks.

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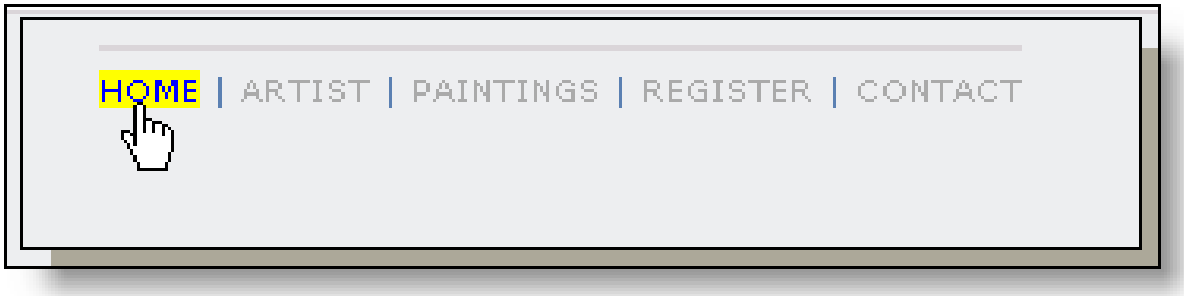
Provide persistent links to the home page and to high-level site categories

- Provide links to the homepage and high-level site categories on every page of your site. These persistent links enable users to easily navigate from one area of the site to another.

- Be sure the persistent links include links to important sections of your pages. Feature these links either in the top or in a left-side navigation bar because these are the areas users expect to find them.



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Test the navigation design

- To determine whether users can find information easily, test your navigation design as soon as possible.
- You do not necessarily need all the links to be active or all the pictures to be in place, but you will need the significant navigation mechanisms to be working and some of the content to be placed.
- Ask representative users to find particular information.

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In your testing, answer the following questions

- Do users know how to find the information they need?
- Does your navigation design connect all related information in a sequence that makes sense to users?
- Do users know where they are in the site structure?
- Do users know how to return to points they visited previously?
- Are there any unnecessary links that clutter the navigation design?

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Design

- Some questions to address in this stage include:
- Does the navigation design enable users to move around easily?
- Is the content organized such that users can easily find what they need?
- What visual style do I use to appeal to my audience?
- Is there a *consistent* look throughout the site?

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Writing to Be Found

- When users link to a page from a search engine, they should know immediately how the page relates to their query. Highlight keywords, start the page with a summary.
- Include in each page all possible terms that can be used to search for the topic of the page.
- List the most important terms in a keywords meta-tag together with all common synonyms:

```
<meta NAME="Keywords" CONTENT="GIS, Desktop Mapping,
Spatial, Geographic Information System, Geoinformations
system">
```

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- Include generic terms used by customers or competing companies to describe the topic of the page.
- Do not include competitors' trademarks in the meta-tag.

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Common errors

- Clutter and visual noise
- Belaboring the obvious
- Excessive detail and embellishment
- Gratuitous dimensionality

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Design

- To design is to plan, to order, to relate, and to control. In short, it opposes all means of disorder and accident.

Emil Ruder: Typography (1981)

- To design is much more than simply to assemble, to order, to edit; it is to add value and meaning, to illuminate, to simplify, to clarify, to modify, to dignify, … to persuade, and perhaps even to amuse.

Paul Rand: Design, Form, and Chaos (1993)

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Techniques

- Reducing a design to its essence
- Regularizing the elements of design
- Combining elements for maximum leverage

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Simplicity: Reducing a design to its essence

Simplicity does not mean want or poverty It does not mean the absence of any decor, or absolute nudity It only means that the décor should belong intimately to the design proper, and that anything foreign to it should be taken away

Paul Jacques Grillo: Form, Function, and Design

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Reducing a Design to its Essences

- The most fundamental design technique is *reduction*.
- An elegant design must be reduced to its essential elements
- Each element reduced to its essential form.
- Good design is simple, bold and direct.
- Even “essential” elements can be removed to good effect.

Source: http://www.webguild.org/visualdesign/presentations/VDPresentation051403.ppt

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Reducing a Design to its Essences II

- A message is reinforced, not weakened, by removing non-essential elements from the design (or by resisting the temptation to add them in the first place).
- Sometimes it‘s a question of trial and error to determine which elements are truly essential.

  à Web design needs time!

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Reduction process

The use of reduction as a design technique should be approached as a three-step process:

1. Determine the essential qualities (typically a short list of adjectives) that should be conveyed by the design, along with any fixed formal elements, such as a name or label, an essential control, or a color, texture, pattern, or image.

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Reduction process II

2. Critically examine each element in the design and ask yourself why it is needed, how it relates to the essence of the design (identified above), and how the design would suffer without it.

   If you can't answer any of these questions, remove the element.

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Reduction process III

3. Try to remove the element from the design anyway. What happens? If the design collapses, either functionally or aesthetically, the element must be replaced. Otherwise, consider omitting it from the final solution.

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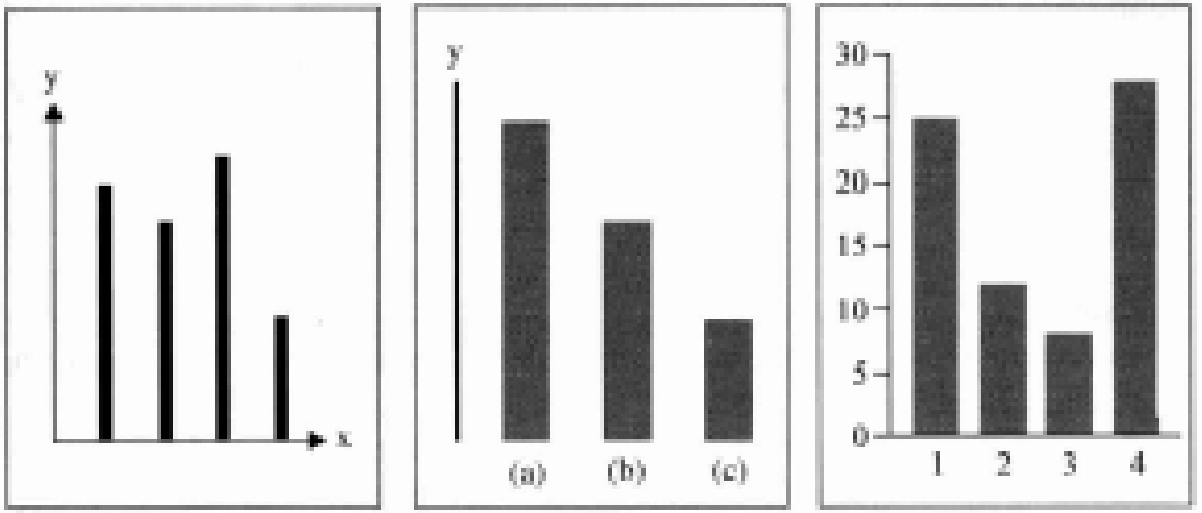

- Remove peripheral features or redundant information.
- Effective design often involves oversimplifying to help make a point (also important for PPTs!).

An ounce of inaccuracy can be worth a pound of explanation if it helps the viewer gain a basic understanding of the message you are trying to convey.

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Regularizing the Elements of a Design

- Regularity reduces information by repeating elements according to a discernible rule, principle, or rhythm.
- Why? Human perception and memory operate more efficiently on regularized stimuli, since the visual complexity of the display is reduced while its structure is enhanced.
- The predictability of a regular pattern allows the viewer to "scan ahead" more easily to the area of interest when making a comparison or answering a question.

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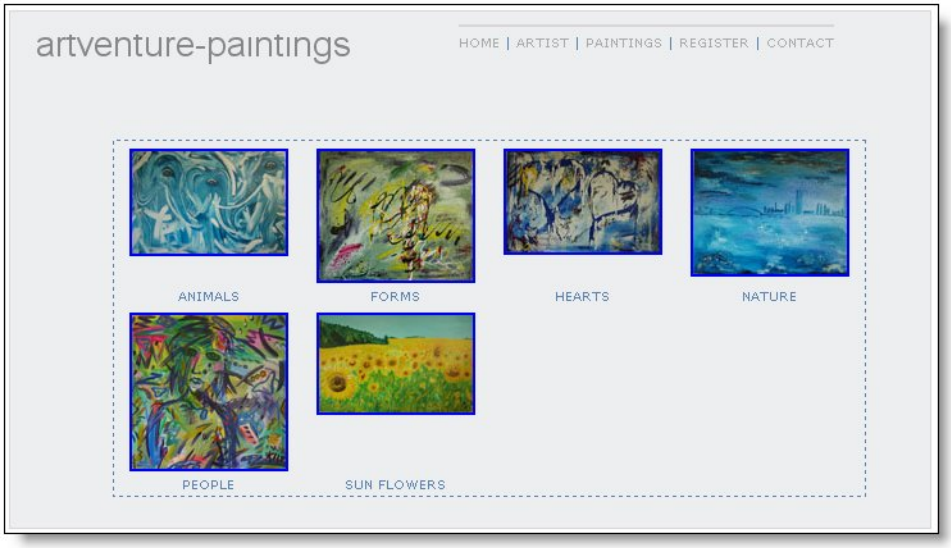
Regularizing the Elements of a Design II

- Regularity also introduces significant aesthetic benefits, as evidenced by the near-universal human fascination with the decorative effect of repetitive patterns.



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Regularizing the Elements of a Design III

- Regularity can be achieved by aligning or reflecting elements along common axes, by standardizing or repeating sizes and spacing of components, or by reducing components to basic geometric forms wherever possible.

[PDF]**Curriculum Vitae**
Dateiformat: PDF/Adobe Acrobat - HTML-Version
PROF DR B...LA MjRKUS **CURRICULUM VITAE** 2000 P ERSONAL D ATA **...** reading: good) German (speaking: poor, reading: fair) Main activities: **GIS** education development **...**
geoweb.cslm.hu/vhost/geoinfo/ staff/markus/CVLIT2000.pdf - Ähnliche Seiten

Curriculum Vitae - [Diese Seite übersetzen]
... Paris, 1994. Márkus, B.: **GIS curriculum** development and education in Hungary, The 1995 European **GIS** Yearbook, Ed. PJ Shand - PJ **...**
www.ncgia.ucsb.edu/ige98/participants/markus.html - 12k - Im Archiv - Ähnliche Seiten

Frank Schwedler - **Curriculum Vitae**
Curriculum Vitae. **...** 1999) Arbeitsschwerpunkte: Geoinformationssysteme (**GIS**; ArcInfo, AutoCAD/ArcCAD, ArcView), Geovisualisierung, geographische Grundlagen **...**
www.uni-kiel.de/Geographie/Schwedler/Lebenslauf.html - 15k - 15 Dez. 2002 - Im Archiv - Ähnliche Seiten

Curriculum Vitae Stephen M. Ervin - [Diese Seite übersetzen]
... 1994-Present Associate/Consultant, **GIS**/Trans, Ltd. **GIS**/Visualization. **...** 1996 "Alternative Futures for Camp Pendleton, California", **GIS** Research, May 1996; **...**
www.gsd.harvard.edu/~servin/cv.html - 8k - 15 Dez. 2002 - Im Archiv - Ähnliche Seiten

Dmitri Bagh's **CURRICULUM VITAE** - [Diese Seite übersetzen]
CURRICULUM VITAE. PERSONAL INFORMATION. **...** OBJECTIVE. Seeking position of Geographic

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www.gdv.com
Interesse:

Sehen Sie Ihre Anzeige hier...

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Regularizing the Elements: Useful strategies

- Use regular geometric forms, simplified contours, and muted colors wherever possible.
- If multiple similar forms are required, make them identical, if possible, in size, shape, color, texture, line weight, orientation, alignment, or spacing.
- Limit variation in typography to a few sizes from one or two families (i.e. sans-serifs or serifs).
- To gain the benefits of regularity, make sure critical elements intended to stand out in the display are not regularized.

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Regularizing the Elements of a Design IV

- When further reduction is not feasible, the remaining elements can be regularized to further simplify the design.
- Effective design balances contrast with regularity.
- Effective design establishes a predictable pattern.

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Combining elements for maximum leverage

- Leverage means: Finding design elements which play multiple roles.
- When one part does the work of two, the elegance of the solution is enhanced.
- Effective design utilizes every component to its fullest.

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Combining elements for maximum leverage

- Review the functional role played by each element in the design.
- Question whether an element's role could be filled as well by an adjacent component, possibly after minor modifications.
- Combine redundant elements into a single, simpler unit.

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Recommendation

- Elegance of a web site cannot easily be summarized in a few rules of thumb.
- It depends heavily on taste,
  and taste can only be achieved through prolonged exposure
  à Look carefully at all web sites you visite!

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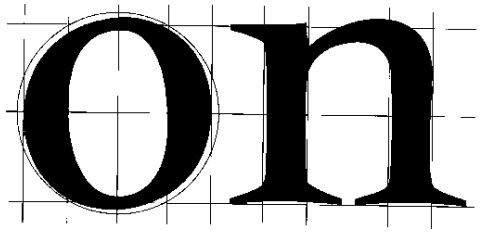
Use characters carefully

- Proper alignment of curvilinear elements to the typographic baseline and the x-height of a font requires compensation for optical effects. Curves must extend slightly *beyond the* point of physical alignment to create the appearance of alignment.



Designing visual interfaces / Mullet, Kevin; Sano, Darrell , 1995

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- http://www.bamagazine.com/Ligature/Ligature01.html

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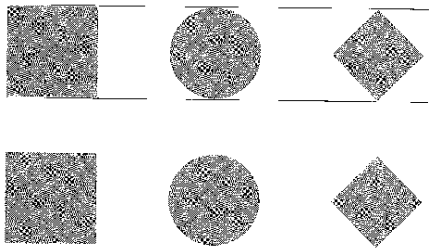

- With *physically equivalent* scaling, rounded or acute forms appear too small relative to rectangular elements

Designing visual interfaces / Mullet, Kevin; Sano, Darrell , 1995

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Keep the users on your site

- Users decide quickly whether to stay or leave a site. To assess whether your homepage communicates effectively to visitors in the crucial first 10 seconds, follow two simple guidelines.
- First, collect the taglines from your own site and your three strongest competitors. Print them in a bulleted list without identifying the company names. Ask yourself whether you can tell which company does what. More important, ask a handful of people outside your company the same question.
- Second, look at how you present the company in the main copy on the home page. Rewrite the text to say exactly the opposite. Would any company ever say that? If not, you're not saying much with your copy, either.

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Writing to Be Found

- More than half of web users rely on search engines to navigate pages.

  à You should assure that content of your pages are suited for web engines.

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Writing to Be Found

- When users link to a page from a search engine, they should know immediately how the page relates to their query. Highlight keywords, start the page with a summary.
- Include in each page all possible query terms that can be used to search for the topic of the page.
- List the most important terms in a keywords meta-tag together with all common synonyms (even ones not included in the body text).

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Altavista Search Results: "GIS Resume"

Feb02_resume.PDF
Dokumententyp:PDF - Download PDF Reader
Ronaldo Luna. Department of Civil Engineering. University of Missouri - Rolla. 306 Butler-Carlton Hall. 1870 Miner Circle. Rolla, MO 65409. (573) 341-4484 (off.) (573) 341- 4729 (fax) email:...
web.umr.edu/~rluna/rluna_cv.pdf
Weitere Seiten zu web.umr.edu

Resume Of Dr J. David Rogers
1000. J. DAVID ROGERS, Ph.D., P.E., R.G. Karl F. Hasselmann Missouri Chair in Geological Engineering Department of Geological and Petroleum Engineering University of Missouri-Rolla 129 McNutt...
web.umr.edu/~rogersda/resume/index.htm ▪ Übersetzen

resume-neu1.fm
Dokumententyp:PDF - Download PDF Reader
1. Markus Weiler. email: weiler@ihw.baug.ethz.ch. EDUCATION. STUDY ABROAD. RESEARCH EXPERIENCE. Present Address: ETH Hönggerberg, HIL C 46.5. CH-8093 Zürich. Tel: +41 1 633 3384. Permanent...
www.2hydros.de/markus/pdfs/resume.pdf
Weitere Seiten zu www.2hydros.de

Resume - Markus Weiler
Homepage Markus Weiler. **Resume**. education. Ph. D. in Hydrology (Dr. rer. tech.) Swiss Federal Institute of Technology. June 2001 Zurich, Switzerland. Area of research: Investigating infiltration...
www.2hydros.de/markus/resume.html ▪ Übersetzen

GIS_wg_2.PDF
Dokumententyp:PDF - Download PDF Reader
28 4. Geographical Information Systems (**GIS**) Commonly accepted definitions of **GIS** are generally a sort of description of. characteristic and tools used in the organisation and management of...
www.wmo.ch/web/wcp/wcasp/cclcc/rapp_full...hi_GIS_wg_2.PDF
Weitere Seiten zu www.wmo.ch

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- Include generic terms used by customers or competing persons / companies to describe the topic of the page; however, do not include other person's trademarks in the meta-tag.
- Use a controlled vocabulary to add keywords to the meta-tags for your pages:

  à Create a list of common terms for your subject area and make sure that each of these terms is added to the keywords meta-tag for those related pages.

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- Do not add a keyword if the page is only peripherally related to the term. **Only use keywords that describe the main topic of a page**.

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The importance of the <title> tag

- Each page must have a <title> tag!
- Create title text of a single line, typically no more than 60 characters.
- Titles are often truncated in navigation menus and by search engines!

  à Make sure that the first 40 characters of the title describe the topic of the page:

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The importance of the <title> tag II

- Make the first word of the title the most important descriptor of the page: Users often scan down long lists of titles to choose pages.
- Do not begin a title with a generic term ("Welcome to") or an article ("The").
- The title should even make sense when viewed completely out of context, as part of a long list of other page titles.

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The importance of the <title> tag III

- Give **different titles to different pages**: Pages about the same topic can start with the same words but should end with words that explain the difference between them.
- Titles must be written in mixed case.
- In rare cases, a single keyword might be emphasized by use of UPPERCASE (do not use for the first word in the title: being first is sufficient emphasis).

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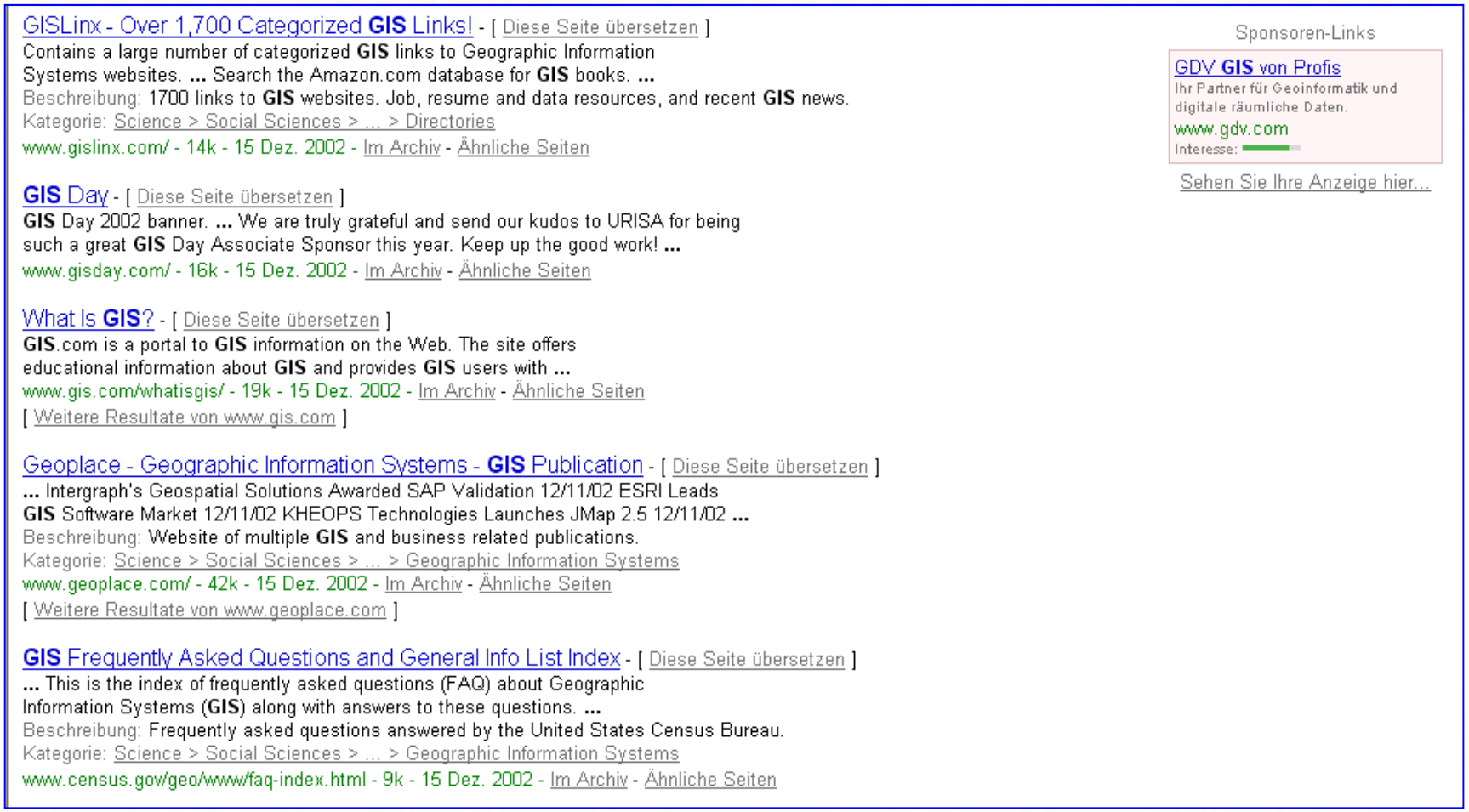
Google Search Results “GIS”



GISLinx - Over 1,700 Categorized **GIS** Links! - [Diese Seite übersetzen]
Contains a large number of categorized **GIS** links to Geographic Information Systems websites. **...** Search the Amazon.com database for **GIS** books. **...**
Beschreibung: 1700 links to **GIS** websites. Job, resume and data resources, and recent **GIS** news.
Kategorie: Science > Social Sciences > ... > Directories
www.gislinx.com/ - 14k - 15 Dez. 2002 - Im Archiv - Ähnliche Seiten

GIS Day - [Diese Seite übersetzen]
GIS Day 2002 banner. **...** We are truly grateful and send our kudos to URISA for being such a great **GIS** Day Associate Sponsor this year. Keep up the good work! **...**
www.gisday.com/ - 16k - 15 Dez. 2002 - Im Archiv - Ähnliche Seiten

What Is **GIS**? - [Diese Seite übersetzen]
GIS.com is a portal to **GIS** information on the Web. The site offers educational information about **GIS** and provides **GIS** users with **...**
www.gis.com/whatisgis/ - 19k - 15 Dez. 2002 - Im Archiv - Ähnliche Seiten
[Weitere Resultate von www.gis.com]

Geoplace - Geographic Information Systems - **GIS** Publication - [Diese Seite übersetzen]
... Intergraph's Geospatial Solutions Awarded SAP Validation 12/11/02 ESRI Leads **GIS** Software Market 12/11/02 KHEOPS Technologies Launches JMap 2.5 12/11/02 **...**
Beschreibung: Website of multiple **GIS** and business related publications.
Kategorie: Science > Social Sciences > ... > Geographic Information Systems
www.geoplace.com/ - 42k - 15 Dez. 2002 - Im Archiv - Ähnliche Seiten
[Weitere Resultate von www.geoplace.com]

GIS Frequently Asked Questions and General Info List Index - [Diese Seite übersetzen]
... This is the index of frequently asked questions (FAQ) about Geographic Information Systems (**GIS**) along with answers to these questions. **...**
Beschreibung: Frequently asked questions answered by the United States Census Bureau.
Kategorie: Science > Social Sciences > ... > Geographic Information Systems
www.census.gov/geo/www/faq-index.html - 9k - 15 Dez. 2002 - Im Archiv - Ähnliche Seiten

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Google Search Results “GIS”, “C”

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geoweb.cslm.hu/vhost/geoinfo/ staff/markus/CVLIT2000.pdf - Ähnliche Seiten

Curriculum Vitae - [Diese Seite übersetzen]
... Paris, 1994. Márkus, B.: **GIS curriculum** development and education in Hungary, The 1995 European **GIS** Yearbook, Ed. PJ Shand - PJ **...**
www.ncgia.ucsb.edu/ige98/participants/markus.html - 12k - Im Archiv - Ähnliche Seiten

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Curriculum Vitae. **...** 1999) Arbeitsschwerpunkte: Geoinformationssysteme (**GIS**; ArcInfo, AutoCAD/ArcCAD, ArcView), Geovisualisierung, geographische Grundlagen **...**
www.uni-kiel.de/Geographie/Schwedler/Lebenslauf.html - 15k - 15 Dez. 2002 - Im Archiv - Ähnliche Seiten

Curriculum Vitae Stephen M. Ervin - [Diese Seite übersetzen]
... 1994-Present Associate/Consultant, **GIS**/Trans, Ltd. **GIS**/Visualization. **...** 1996 "Alternative Futures for Camp Pendleton, California", **GIS** Research, May 1996; **...**
www.gsd.harvard.edu/~servin/cv.html - 8k - 15 Dez. 2002 - Im Archiv - Ähnliche Seiten

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Yahoo Search Results "GIS"

1. Environmental Systems Research Institute, Inc. (ESRI) - **GIS** services and software including ArcView **GIS**, ARC/INFO, Spatial Database Engine (SDE), and MapObjects.
   http://www.esri.com/ search within this site
   ➥ More sites about: B2B > Geographic Information Systems

2. **GIS**.com--Your Internet Guide to **GIS** (Geographic Information ... - **GIS**.com is a portal intended to educate anyone interested in geographic information
   http://www.**gis**.com/ search within this site

3. Geographic Information Systems - **GIS** - **...** Manual of Federal Geographic Data Products. What is a **GIS**? In the
   http://www.usgs.gov/research/**gis**/title.html search within this site

4. Free **GIS** Data - **GIS** Data Depot - The **GIS** Data Depot provides FREE **GIS** data downloads and creates custom **GIS**
   http://www.gisdatadepot.com/ search within this site

5. The GISPortal! Great **GIS** Net Sites! - gisportal.gif (34368 bytes), The **GIS** Portallaka. **...** We've got over 1000
   http://www.gisportal.com/ search within this site

6. **GIS** Dictionary - includes definitions for terms which either relate directly to **GIS** or which **GIS** users may come across in the course of their work.
   http://www.geo.ed.ac.uk/agidict/welcome.html search within this site
   ➥ More sites about: Geography > Geographic Information Systems

7. GEO World - December 2002 - **...** Tablet PCs: Gauging the Impact on Mobile **GIS** By Matt Ball. **...** Open **GIS** Connection Pilot
   http://www.geoplace.com/gw/ search within this site

8. Open **GIS** Consortium - promoting and developing interoperability among diverse geoprocessing systems.
   http://www.opengis.org/ search within this site
   ➥ More sites about: Geographic Information Systems > Organizations

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The importance of the summary meta tag

- Each page should have a short **summary** in a description meta-tag.
- This summary is shown below the page title by some search engines.

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```
<META NAME="Keywords" CONTENT="GIS, GIS-
 Literature,Desktop Mapping, EDBS,SQD, Exchange
 Formats, Cartography,Geoinformation systems,
 Geo-Informations systems,Graphic,Graphics,
 Spatial, Geographic Information System,
 Surveying">
```

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Symmetry

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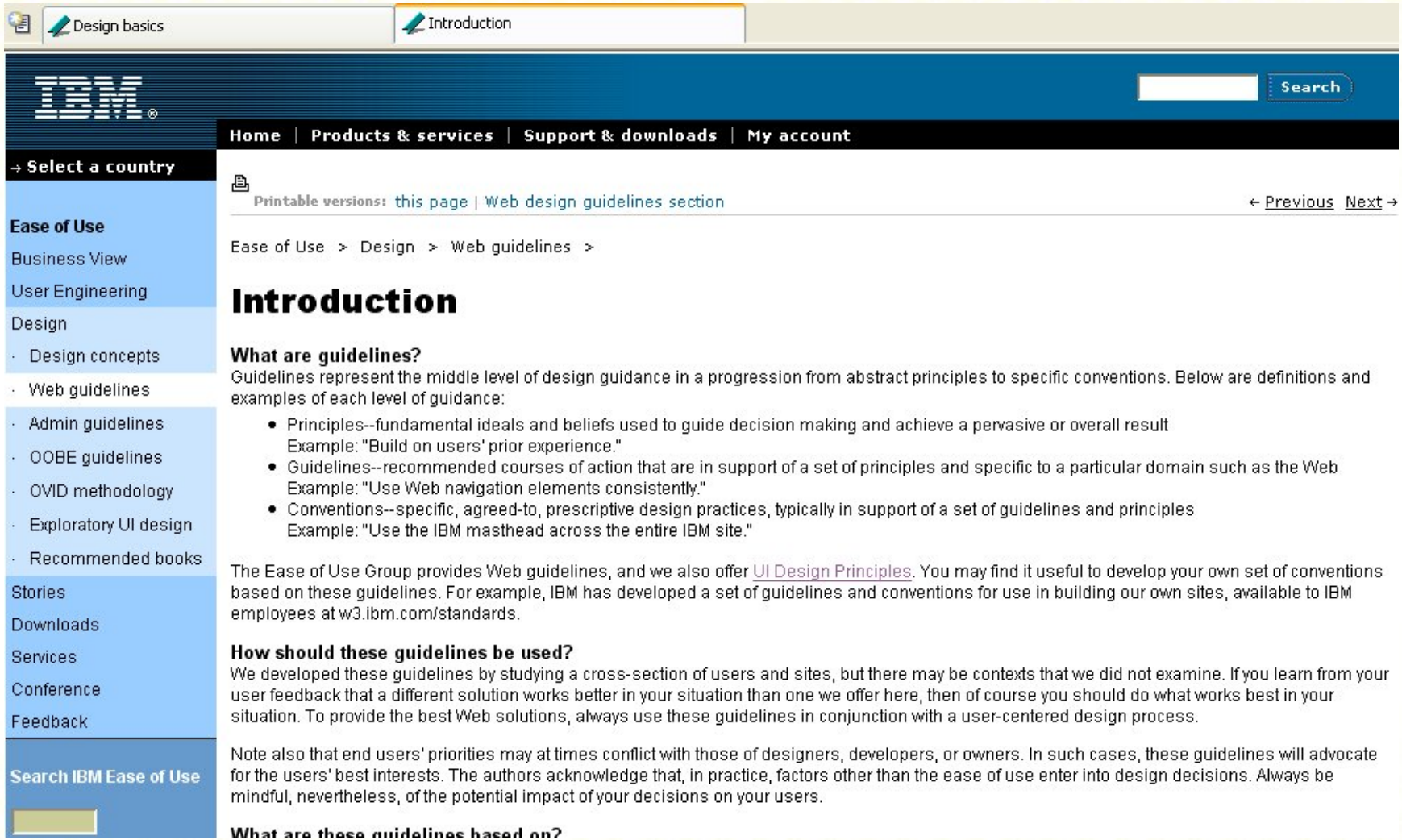
User Guidance



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Planning

Some questions to address in this stage include:

- What do I want the site to accomplish, sell, or promote?
- Who are my users and what do they want and need?
- What competitive advantage will the site offer over others?
- How can I take advantage of the Web medium?
- What should I consider when creating the project schedule?

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Planning

- Define your purpose
- What do you want your site to accomplish?
- Although you may redefine your purpose after you have received input from representative users, your statement of purpose will guide you throughout the process of defining your audience, developing your strategy, and creating the content of your site.

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Define your target audience

- As much as you may wish it could, your site will not appeal to everyone.
- Your best bet is to choose a particular segment of the population and focus your efforts on attracting and engaging these users.

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Define your target audience

- Explore the following issues to develop your list of potential users:
- Determine who is likely to be interested in the content you will provide. At an initial brainstorming stage, don't try to narrow this list; you want to look at the full range of possible users.
- Determine which of these user groups you are equipped to serve. In the example above, if you have a small farm with limited production capacity, you may choose to exclude buyers for large produce departments or large restaurants.
- Of the remaining list, determine which users in your list have access to the web. Also, which are most likely to use the web for your intended purpose?

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Define your audience/user profile

- A clear user/audience profile will help you develop a design strategy that communicates effectively to the people you want your site to reach. Using the input from potential users, follow these steps in order to complete your profile:

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Define your audience/user profile

- Determine whether your audience is inside the company, in which case you would probably use an intranet, or outside the company, in which case you would use the internet
- Identify the category your target group is in (such as people in the food industry)
- Identify the level of subject expertise within that group (such as food professionals, home connoisseurs, etc.)

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Define your audience/user profile

- Determine the order of their information preferences, or which pieces of information users want first, second, third, and so on (for example, they may want to first see what fruits are in season, followed by the cost of these fruits)
- Define audience characteristics such as profession, location, gender, age, or lifestyle preferences when they are relevant

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Define your audience/user profile

- Describe scenarios of use, or those situations or circumstances under which the site may be used (such as a health-food restaurant chef trying to use unusual food items to make the menu more exotic and interesting)
- Describe your users' range of abilities, and account for vision, hearing, mobility, or cognitive impairments

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Define your audience/user profile

- Describe your users' environments, and note any environmental challenges such as poor lighting or noise, and any technical challenges such as screen size and number of colors
- Identify users' level of technical expertise in using a website (their expertise will affect decisions regarding the technical sophistication of the design)
- Determine what hardware and browser software your audience uses
- Identify what monitors and screen resolutions your audience uses.

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Technological Considerations: HTML

- Hypertext Markup Language (HTML) is the primary technology used to create all web sites. Some of the elements in the most recent versions of HTML may not work with older browsers.
- Choose a version that best meets your purpose and the needs of your audience. You can select additional technologies, such as a scripting language, to supplement HTML.

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Technological Considerations: HTML II

- Benefits
  - Can be learned and implemented easily (easy-to-use HTML editors are available)
  - Can be augmented with sound, video, Java applets, and scripting languages such as JavaScript and VB Script
- Limitations of HTML:
  - Provides only limited control over the way your page will be displayed, and over the appearance of text
  - Is not programmable and offers only limited response to user interaction events

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Cascading Style Sheets

- Cascading Style Sheets (CSS) were implemented in the Netscape 4.0 and IE 4.0 browsers. They provide a way to control and adjust layout for an entire site with a single document that defines each style. For more details, refer to "Cascading Style Sheets" section of this lecture.

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Cascading Style Sheets

- Benefits of Cascading Style Sheets:
- Provide greater control over layout and typographic properties
- Facilitate consistency of appearance
- Separate content from layout and presentation, which makes the development of a web site more efficient and flexible
- Manage conflicts in style sheet specifications among documents, groups of documents, and user browser set-ups by using a "cascade" or system of preferences

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Cascading Style Sheets

- Allow users to override your font style, size, and color attributes with ones of their own choosing, which is especially important for users with vision impairments
- Allow style changes selectively
- Can be used in conjunction with JavaScript to provide features that give users a richer sense of interactivity
- Allow elements to be positioned efficiently, eliminating the need for memory-intensive transparent GIFs; files are smaller and open more quickly

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Cascading Style Sheets

- Limitations of Cascading Style Sheets:
  - Require more time to learn and implement than other features of HTML
  - Are not supported by older browsers
  - Are supported in different ways in the new 4.0 browsers (some CSS features do not appear in IE 4.0, and some do not appear in Netscape 4.0)

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Scripting Languages

- Scripting languages such as JavaScript / VB Script / ECMA Script are used primarily for client-side programming, while CGI scripts are often used on the server side. Client-side scripting allows for control and manipulation of HTML and Cascading Style Sheet elements.

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Benefits of Scripting Language:

- Allows for interactive, network-aware, and cross-platform applications
- Is easier to learn than Java
- Adds dynamic and interactive behavior to a web page

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Limitations of Scripting Language

- Can be read by only some browsers as low as 2.0, and not by any 1.0 level browsers
- Cannot be read by some assistive technologies used by people with disabilities
- Is difficult to debug
- Provides limited functionality compared with Java applets

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Java Applets

- Java Applets allow you to encapsulate a piece of function and embed it in a web page.
- Benefits of Java applets:
  - Allow for interactive, network-aware, and cross-platform applications
  - May be used within other applets or applications on the same page
  - Are not yet supported well by assistive technologies used by people with disabilities

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Limitations of Java applets

- Are not yet supported well by assistive technologies used by people with disabilities
- Must be downloaded before they can run, can be a lengthy wait
- Provide only limited access to system resources
- Function only when the web page being viewed is in a browser window
- Often require substantial memory, and the files remain in the browser cache until emptied
- Can only be executed/run by Netscape and IE versions 3.0 or later

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