

Vorlesung Advanced Topics in HCI (Mensch-Maschine-Interaktion 2)

Ludwig-Maximilians-Universität München
LFE Medieninformatik
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SS2005
<http://www.medien.ifi.lmu.de/>

Quick tour of basic design guidelines (1)

- Text
 - Scannable (users mainly scan new pages on the web)
 - highlight keywords
 - headings and subheadings
 - bulleted lists
 - Structure and white space
- Writing
 - Inverted Pyramid (conclusion at the beginning)
 - Use shorter text than in paper writing (e.g. 50%)
 - Write in the users' language
- Graphics
 - Use where appropriate
 - Consider size

Quick tour of basic design guidelines (2)

- Navigation
 - Consistent control over the whole site
 - Keep browser functions (back, forward)
 - text menus
- Context
 - Site maps
 - Context of page within site
 - previous / next page buttons
 - navigation
 - table of contents
 - breadcrumb trail
- Links
 - what the web is all about
 - no dead end pages

[useit.com](#) → [Alertbox](#) → July 2000 WAP Backlash

Typography on the Web

some issues

- Books have about 1200dpi screens have about 100dpi
- Very few fonts are commonly installed!
- Justification is often poor with current browser



Justification and “rivers”

The relatively primitive text justification available today on the Web creates word-space problems that result in “rivers” of white space that seem to run down the page.

<http://www.webstyleguide.com>

Some rules of thumb for text layout

- Column width about 365 pixels for a 12-point font
- About 8 to 10 words per line (in English)
- Increase line spacing (e.g. 16 points for a 12 point font)
- Separate paragraphs by at least an empty line
- Use typeface that is easily readable on screen resolution, use fonts designed for use on screens, e.g. Times New Roman for body text and Verdana for headings
- Use CSS and specify alternatives, e.g.
`P {font-family: "Times New Roman", Georgia, Times, serif }`
- Don't use capitals only

MONOTONOUS

RECTANGLES

Monotonous

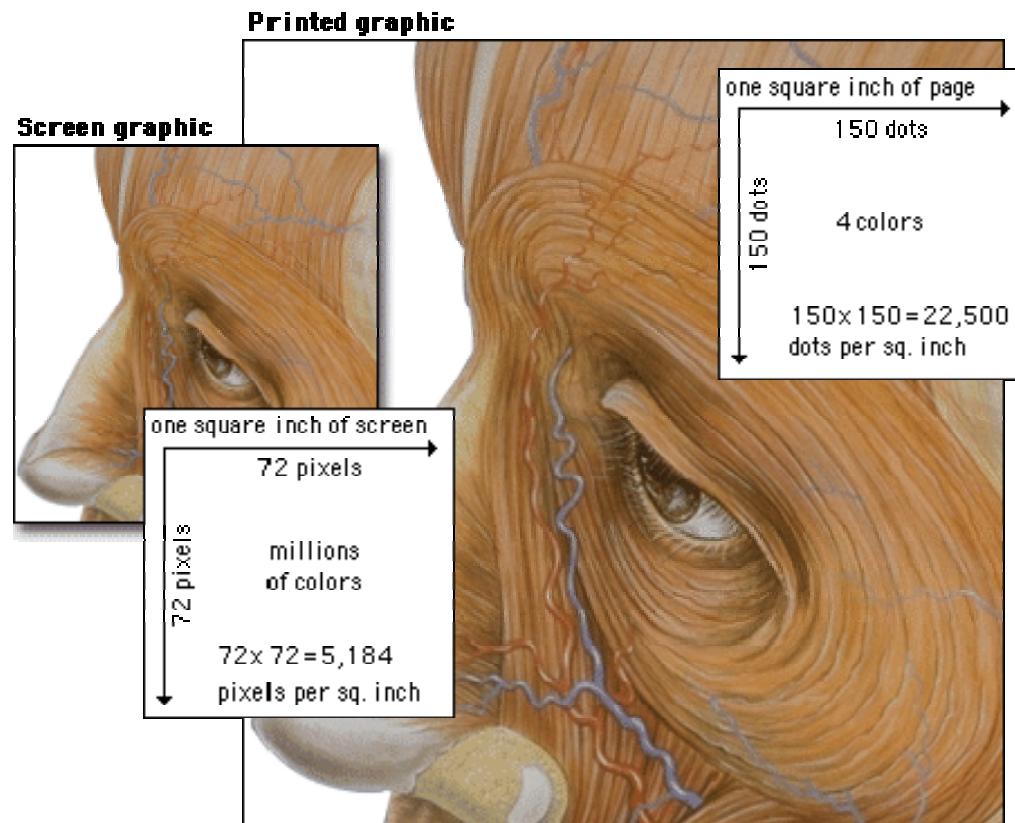
rectangles

<http://www.webstyleguide.com>

About Texts and Links

- Be short and precise
- Page titles should include important information
 - They are used in bookmarks and search engines
- Think global – people may come from everywhere
- Make useful link text – not “click here”
- It may be useful to discriminate links
 - Navigational links
 - Content base links
 - External links
- Placing links into written paragraphs can be counter-productive – people are invited to leave to another page while reading a sentence...

Graphics



- Screen size
- Screen resolution
- Color resolution
- Gamma
- Download time

Web design guides

- Not just one ...
- Example: <http://www.webstyleguide.com/>

The site development process

<http://www.webstyleguide.com>

- Every significant Web project poses unique challenges, but the overall process of developing a complex Web site generally follows six major stages:
 1. Site definition and planning
 2. Information architecture
 3. Site design
 4. Site construction
 5. Site marketing
 6. Tracking, evaluation, and maintenance

Information architecture

<http://www.webstyleguide.com>

Typical results or contract deliverables at the end of this stage could include:

- Detailed site design specification
- Detailed description of site content
- Site maps, thumbnails, outlines, table of contents
- Detailed technical support specification
- Browser technology supported
- Connection speed supported
- Web server and server resources
- Proposals to create programming or technology to support specific features of the site
- A schedule for implementing the site design and construction
- One or more site prototypes of multiple pages
- Multiple graphic design and interface design sketches or roughs

Design

<http://www.webstyleguide.com>

Typical results at the end of this stage could include:

Content components, detailed organization and assembly

- Text, edited and proofread
- Graphic design specifications for all page types
 - Finished interface graphics for page templates
 - Header and footer graphics, logos, buttons, backgrounds
- Detailed page comps or finished examples of key pages
 - Site graphic standards manual for large, complex sites
- Interface design and master page grid templates completed
- Illustrations, Photography

Functional and logic components

- JavaScript scripts, Java applets designed
- Database tables and programming, interaction prototypes completed
- Search engine designed and tested

Site Construction

<http://www.webstyleguide.com>

Typical results at the end of this stage could include:

- Finished HTML for all Web pages, all page content in place
- Finished navigation link structure
- All programming in place and linked to pages, ready for beta testing
- All database components in place and linked to site pages
- All graphic design, illustration, and photography in place
- Final proofreading of all site content
- Detailed testing of database and programming functionality
- Testing and verification of database reporting features
- Testing of site reader support procedures, answering email, etc.
- Archives of all site content components, HTML code, programming code, and any other site development materials

Site Marketing

<http://www.webstyleguide.com>

Your home page URL could appear in:

- Print advertisements
- Radio and television advertisements
- Lobby kiosks in high-traffic areas of your enterprise or in local libraries, schools, or other suitable venues
- Direct mail campaigns
- Business cards
- Stationery
- Bills and statements
- Product manuals and product packaging
- Response cards and warrantee cards
- Publications and promotional materials
- Press releases
- Posters and billboards

Organizing Information

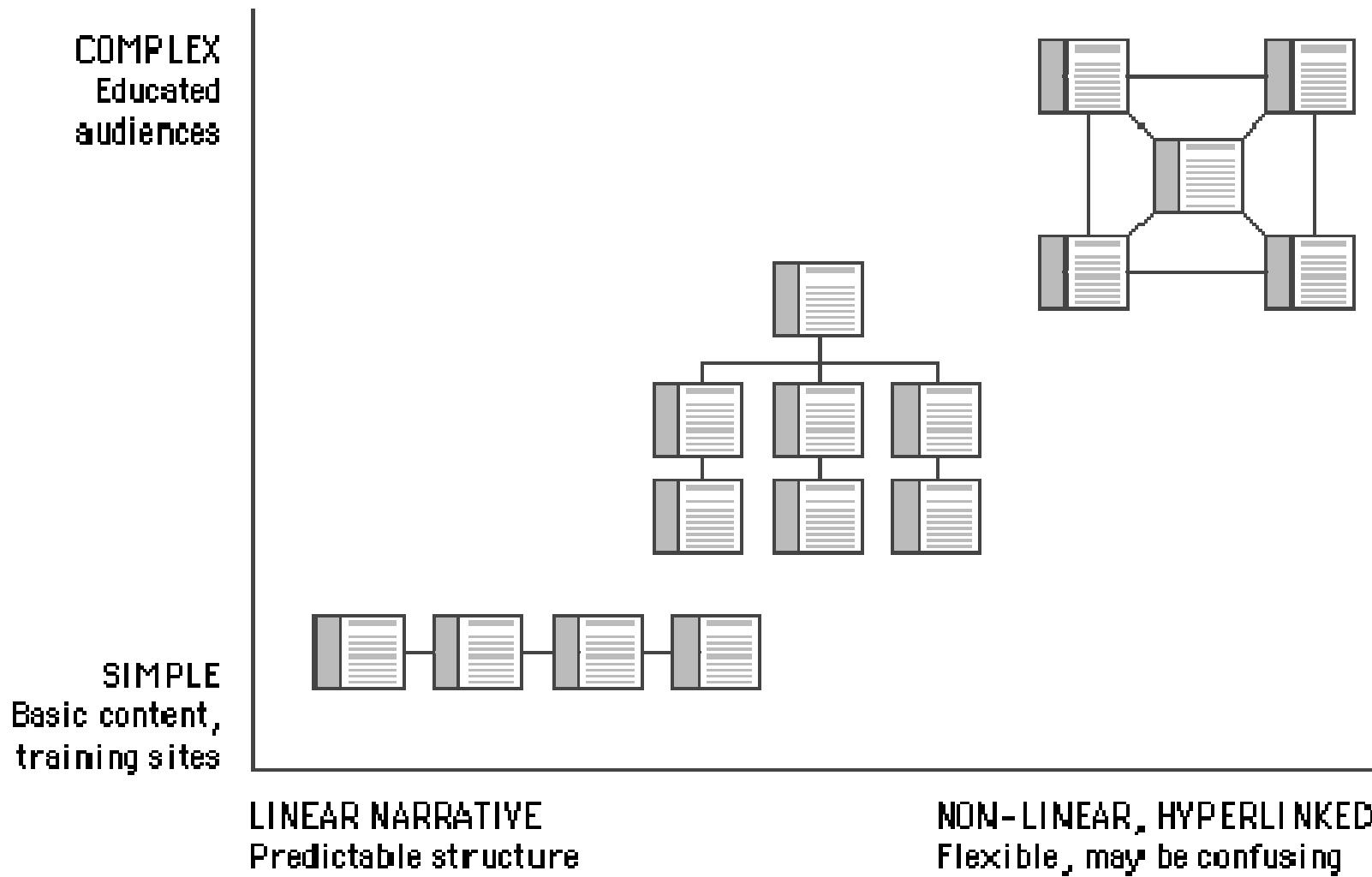
<http://www.webstyleguide.com>

There are five basic steps in organizing your information:

1. Divide your content into logical units
2. Establish a hierarchy of importance among the units
3. Use the hierarchy to structure relations among units
4. Build a site that closely follows your information structure
5. Analyze the functional and aesthetic success of your system

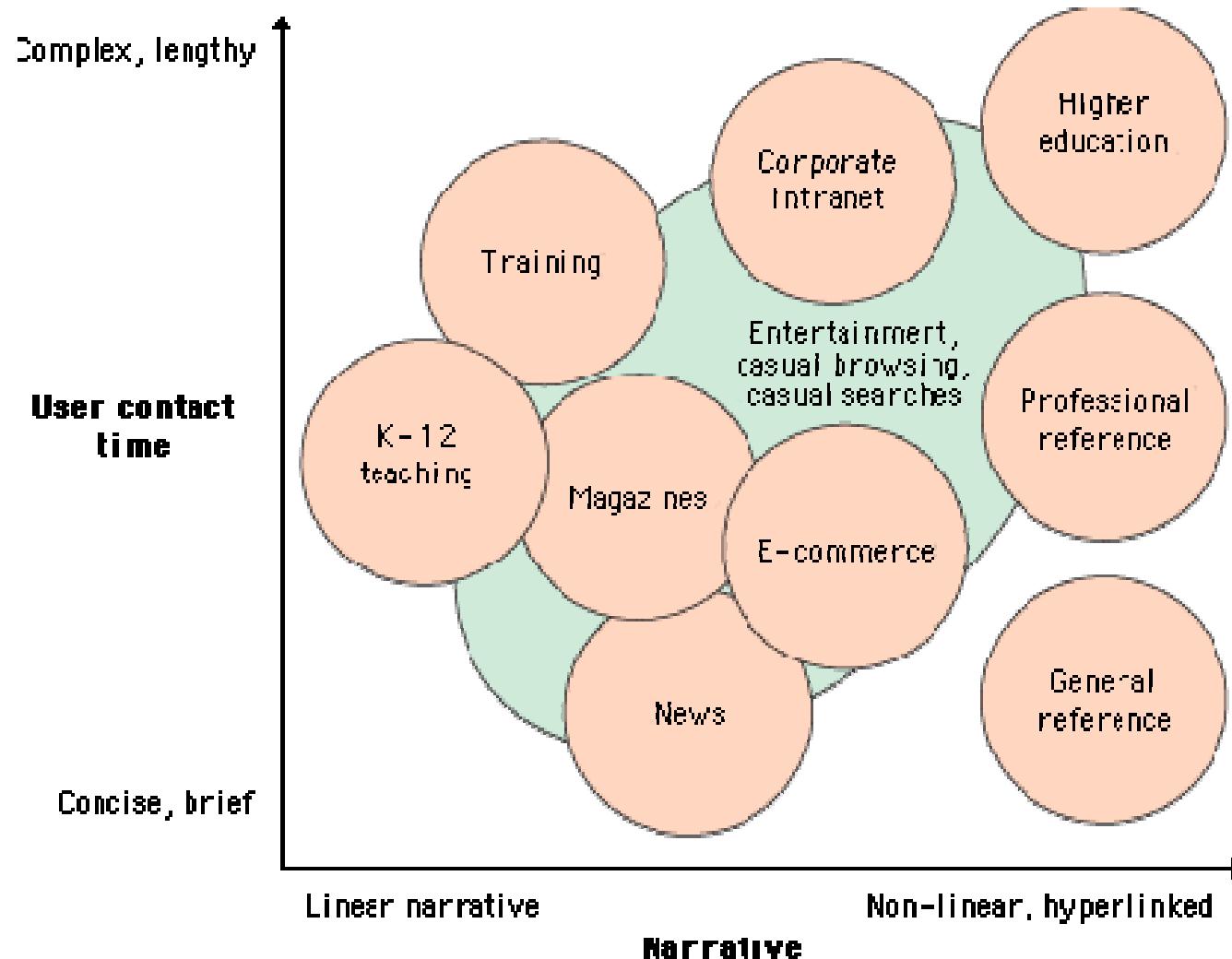
Basic Organization Patterns

<http://www.webstyleguide.com>



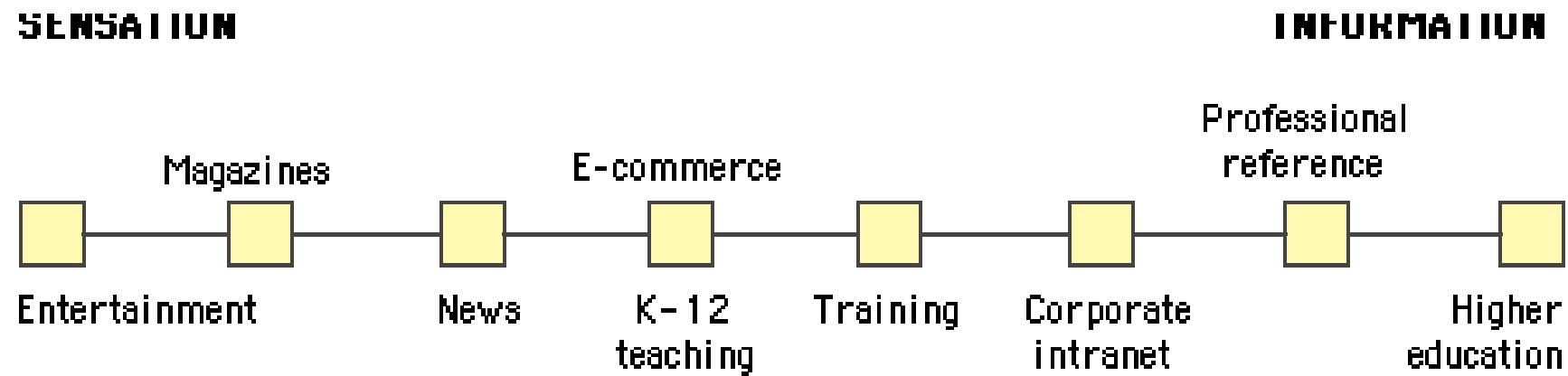
Site Design Themes (1)

<http://www.webstyleguide.com>



Site Design Themes (2)

<http://www.webstyleguide.com>



- Design, technology, and structure has to fit the anticipated target user
- Consider time spend on a page, attention span, and main goal of the user

Site Design Themes (3)

<http://www.webstyleguide.com>

- Training
- Teaching
- Continuing education
- Reference
- Entertainment and magazine sites
- News sites
- E-commerce

Site Elements

<http://www.webstyleguide.com>

- When designing a site the basic site elements can help to create a clear design, examples are:
- Home pages
- Information pages ("the meat")
- Menus and subsites
- Resource lists, "other related sites" pages
- Site guides
- "What's new?" pages
- Search features
- Contact information and user feedback
- Bibliographies and appendixes
- FAQ pages
- Custom server error pages

Site Elements – Home page

<http://www.webstyleguide.com>

- Logical entry point to a site, often the most visited page on a site
- First impression – everything that is really important has to be visible without scrolling
- All pages in the site should link back to this page
- Typical function
 - Show important content and news
 - Link to all parts of the site (home for navigation)
- Home page types
 - Link/navigation/menu page
 - News pages
 - Path-oriented pages (dividing the visitors - *information for ...*)
 - Splash screens/cover page (be carefull! hard to make them useful!)
 - Combined (Navigation with paths, news integrated)
- Home pages have often a distinctive layout within a site

Home Pages – Example 1

IBM Deutschland - Microsoft Internet Explorer

Datei Bearbeiten Ansicht Favoriten Extras ?

Zurück Suchen Favoriten Medien Wechseln zu Links >

Adresse http://www.ibm.com/de/

IBM Deutschland

Land / Region auswählen

Auswählen Go

Ressourcen für:

- Endbenutzer
- Mittelstand
- Großunternehmen
- Öffentlicher Dienst
- Entwickler
- IBM Business Partner
- Investoren
- Journalisten

Administrativer Support
IBM in Ihrer Region
Jobs bei IBM
IT-Training
Events

Deutschland

Home | Produkte & Services | Support & Download | Mein Profil

Suchen

Keine Reserven? Keine Sicherheit?

Mit uns schon. IBM Integrated Technology Services hilft Ihnen, Sicherheitslücken und Effizienzprobleme erfolgreich zu beheben.

Lösungen

Business Probleme lösen:
IBM Lösungen integrieren Hardware, Software und Services und werden so den Herausforderungen Ihrer Branche gerecht.

Lösungen nach Branchen Go

Services

- Business und IT-Services
- Business Consulting Services
- On demand Services
- Infrastructure Services
- Finanzierung

Shopping

Integrieren Sie jetzt Kosten senken und Datensicherheit verbessern.

Gewinnen Sie mit IBM

IBM eServer zSeries 890 - der ideale Großrechner für den Mittelstand.

Direkt bestellen?
Hier finden Sie schnell, was Sie suchen.

Spezielle Angebote

NavCode™
Geben Sie den Code aus der Werbung ein:
Go

Aktuelles

IBM unterstützt Softwarepartner mit neuen Programmen und innovativer Grid-Technologie
IBM TotalStorage SAN File System ermöglicht Verwaltung extrem hoher Datenmengen
Reisebuchungssystem "Galileo" von Cendant nutzt Linux Red Hat auf IBM eServer
Studie: Flexible Preismodelle erhöhen Nachfrage von gebündelten Web Services
→ Weitere News und Newsletter

@business on demand
→ Was bringt on demand Ihrem Unternehmen?

Combined

IBM in Deutschland | Datenschutz | Nutzungsbedingungen | Kontakt

Home Pages – Example 2

The screenshot shows the Bosch homepage from June 2004. At the top, there's a navigation bar with links for 'Datei', 'Bearbeiten', 'Ansicht', 'Favoriten', 'Extras', and a question mark. Below the bar are standard browser buttons for back, forward, search, and file operations. The address bar shows the URL <http://www.bosch.de/start/content/language1/html/index.htm>. The page header includes the 'BOSCH' logo, language links ('English | Impressum'), a date ('02.06.2004'), and links for 'Web-Assistent', 'Mein Bosch', 'Bezugsquellen', and 'Kontakt'. The main content area features a large banner for 'BoschLive – das Magazin' from June 2004, with a focus on 'Diesel sparsam'. To the right of the banner are three smaller news items: 'Motorsport aus Leidenschaft', '20.000 Leben retten', and 'Qualifikation für die Zukunft'. On the left side, there's a sidebar with sections for 'Produkte und Dienstleistungen für' (Automobile and Werkstätten, Haushalte and Heimwerker, Wirtschaft and Handwerker), 'Das Unternehmen' (Über Bosch in Deutschland, Die Bosch-Gruppe weltweit), and 'Informationen für' (Bewerber, Journalisten, Lieferanten, Aktionäre der Buderus AG). At the bottom, there are three call-to-action boxes: 'Web-Assistent' (described as a helper who knows Bosch well and answers quickly), 'Mein Bosch' (described as a service for personal interests), and 'Bezugsquellen' (described as finding the easiest way to products and services). A yellow box on the right contains the text: 'Combined News central Path oriented navigation'.

Home Pages – Example 3

Homepage - Deutschland - Dr. Ing. h.c. F. Porsche AG - Microsoft Internet Explorer

Datei Bearbeiten Ansicht Favoriten Extras ?

Zurück Suchen Favoriten Medien Links

Adresse http://www2.porsche.de/german/deu/home.htm Wechseln zu

D INHALT ANDERE LÄNDER SUCHEN >

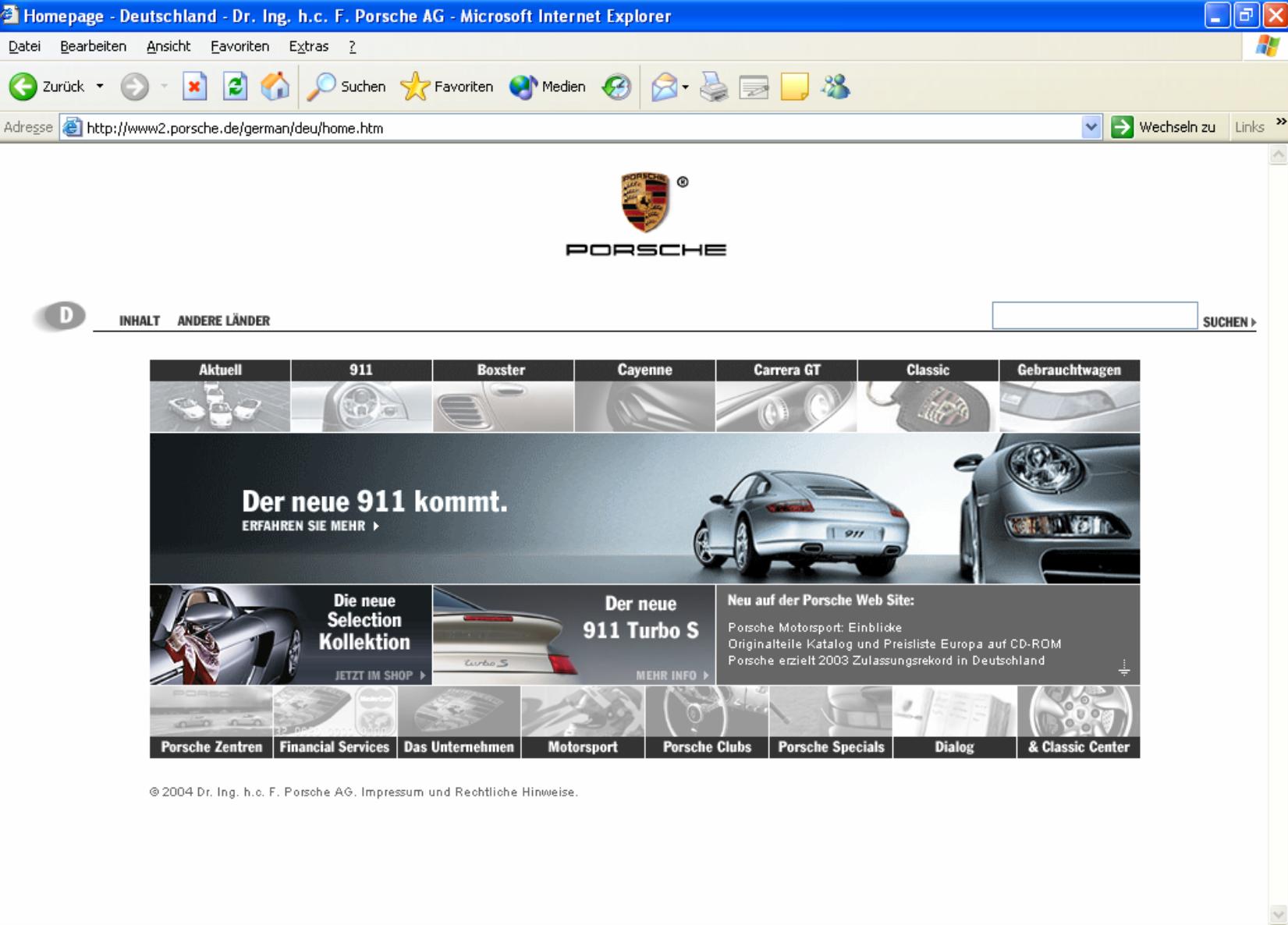
Aktuell 911 Boxster Cayenne Carrera GT Classic Gebrauchtwagen

Der neue 911 kommt.
ERFAHREN SIE MEHR >

Die neue Selection Kollektion JETZT IM SHOP > Der neue 911 Turbo S MEHR INFO > Neu auf der Porsche Web Site:
Porsche Motorsport: Einblicke
Originalteile Katalog und Preisliste Europa auf CD-ROM
Porsche erzielt 2003 Zulassungsrekord in Deutschland

Porsche Zentren Financial Services Das Unternehmen Motorsport Porsche Clubs Porsche Specials Dialog & Classic Center

© 2004 Dr. Ing. h.c. F. Porsche AG. Impressum und Rechtliche Hinweise.



Home Pages – Example 3

Homepage - Deutschland - Dr. Ing. h.c. F. Porsche AG - Microsoft Internet Explorer

Datei Bearbeiten Ansicht Favoriten Extras ?

Zurück Suchen Favoriten Medien Links Wechsel zu

Adresse http://www2.porsche.de/german/deu/home.htm

PORSCHE

D INHALT ANDERE LÄNDER SUCHEN ▶

& Veranstaltungen 911 Boxster Cayenne Carrera GT & Accessoires Gebrauchtwagen

911 Carrera Modelle
911 Targa
911 GT3
911 GT3 RS
911 Turbo Modelle
911 Turbo S Modelle
911 GT2
Porsche Car Configurator

Kollektion JETZT IM SHOP ▶

Der neue 911 Turbo S MEHR INFO ▶

Neu auf der Porsche Web Site:
Porsche Motorsport: Einblicke
Originalteile Katalog und Preisliste Europa auf CD-ROM
Porsche erzielt 2003 Zulassungsrekord in Deutschland

Porsche Zentren Financial Services Das Unternehmen Motorsport Porsche Clubs Porsche Specials Dialog Porsche Education

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Combined focus on Navigation

Home Pages – Example 4

Ludwig-Maximilians-Universität München - Microsoft Internet Explorer

Datei Bearbeiten Ansicht Favoriten Extras ? Zurück → Suchen Favoriten Medien Suchen Wechseln zu Links

Adresse http://www.lmu.de/

LMU Ludwig-Maximilians-Universität München

Einrichtungen der Universität
Fakultäten, Institute, Studierendenvertretung, Verwaltung, Bibliotheken, Rechenzentrum, Wahlamt, barrierefrei studieren, Sicherheitsfragen

Studium
Auslandsamt, Studiengänge, Studienberatung, Studentenwerk, Prüfungsordnungen, Studentenkanzlei, Sport, Hochschulzugang, Career Service, Ringvorlesung, Sicherheitsfragen

Kommunikation & Presse
LMU News, Veranstaltungen, Expertenservice, MünchnerUni.Magazin, Einsichten, Stellenangebote

Suchen und Fragen
Personenverzeichnis, Vorlesungsverzeichnis, Termine, Anfrageportal

Aktuelles
2. BWL-Fakultätstag
25. Juni 2004

Die LMU
Geschichte, Organisation, Virtueller Rundgang, Zahlen und Fakten, Tag der offenen Tür

Forschung und Wissenschaft
Sonderforschungsbereiche, Graduiertenkollegs, Wissenschafts- und Technologietransfer, Forschungsdatenbank, Forschungsförderung, Weiterbildung

Campus^{LMU}
Campus, Mailbox, AudioVision

Studieren an der LMU?
Sagen Sie uns, was Sie interessiert!

Impressum – Datenschutz – ENGLISH VERSION

Navigation / Menu

Home Pages – Example 5

The screenshot shows the homepage of the 'Das Dienstleistungsportal des Bundes'. The page is designed for navigating through various government services. It features a top navigation bar with links to Home, Kontakt, Impressum, Hilfe, Sitemap, ENGLISH, and Geo-Suche. Below this is a search bar with a dropdown menu set to 'BUND UND ALLEN LÄNDERN' and a 'suchen' button. The main content area is titled 'Das Dienstleistungsportal des Bundes' and describes it as 'der schnelle Zugang zu allen behördlichen Informationen und Service-Angeboten der Verwaltung'. The page is divided into several sections:

- SERVICE CENTER**: Includes links to Formular-Center, EU-Mobilität, Jobbörse, and Ausschreibungen.
- Katalog-Suche Bund**: A search form for the catalog of the Federal Government.
- Thematic Sections**:
 - Natur und Umwelt
 - Verkehr und Transport
 - Bauen und Wohnen
 - Wissenschaft und Forschung
 - Geld und Steuern
 - Sicherheit
 - Familie und Partnerschaft
 - Deutschland und die Welt
 - Kinder und Jugend
 - Staat und Gesellschaft
 - Kommunikation und Medien
 - Wirtschaft und Unternehmen
- AKTUELLES**: News item about the 'Jugend ans Netz' initiative.
- BUNDONLINE 2005**: Information about the government's digitalization initiative.
- VERWALTUNG IN DEUTSCHLAND**: Sections for the Federal Government, Federal States, Cities, Districts & Municipalities, and Gemeinden.

A yellow callout box in the bottom right corner contains the text: "Combined focus on Navigation".

Home Pages – Example 6

The screenshot shows the homepage of the Technical University of Munich (TUM) as it appears in Microsoft Internet Explorer. The page features a large central logo consisting of the letters 'TUM' in blue, with horizontal bars extending from the sides. The background of the logo area is divided into several colored sections: light blue at the top left, orange at the top right, grey on the right side, yellow at the bottom left, and blue at the bottom center. Overlaid on these sections are various text labels in a sans-serif font: 'Studium' in light blue at the top left, 'InfoCenter' in orange at the top right, 'Forschung' in grey on the right, 'Einrichtungen' in light blue below 'Studium', 'News' in blue at the bottom center, 'Campus' in blue at the bottom right, and 'Menschen' in yellow at the bottom left. Below the logo, there is a navigation bar with links for 'english version' and 'quick clicks'. The main text 'TECHNISCHE UNIVERSITÄT MÜNCHEN' is centered above the address bar. A yellow callout box in the bottom right corner contains the text: 'Splash Screen with Navigation and one news item'.

Splash Screen with Navigation and one news item

Home Pages – Example 7

muenchen.de - Offizielles Stadtportal für München - Microsoft Internet Explorer

Datei Bearbeiten Ansicht Favoriten Extras ?

Zurück Suchen FAVORITEN Medien Wechseln zu Links

Adresse http://www.muenchen.de/

muenchen.de

Home Stadtplan Branchenbuch Hotels muenchen.de als Startseite

RATHAUS STADTLEBEN TOURISMUS WIRTSCHAFT MARKTPLATZ Kinderportal

Grüß Gott beim offiziellen Stadtportal für München

MÜNCHEN AKTUELL

- Hier schreibt der OB "Münchner Tor" Direkt am Mittleren Ring entsteht ein Großstadtbiotop ...
- Berufs-/Karrieretest Planen Sie Ihre Karriere richtig - mit dem geva-institut
- Wiesn-Countdown Besuchen Sie unsere neu gestaltete Rubrik mit Gewinnspiel ...
- Preise für die Wiesn Die Wirts haben die Preise für Bier & Co. bekannt gegeben
- Tollwood Sommer-Tollwood Jetzt Tickets für Top-Konzerte (z.B. Nena) sichern ...
- Live Webcam Bei Tag und bei Nacht: Der Marienplatz live im Internet ...

HÄUFIG BESUCHTE INHALTE

- Photowettbewerb "Blue Hour" - Hier schreibt der OB - Opernfestspiele - Tollwood - Notdienste - Oktoberfest - Telefonbuch München - Blade Night Auktionen - Souvenirs - Bundesgartenschau - Design-Umfrage

WAS IST LOS IN MÜNCHEN?

M"net ist Ihr lokaler ISDN- und DSL-Anbieter!

Suche auf muenchen.de
Suchbegriff

Virtuelles Rathaus
Bitte wählen

Online Buchen
Hotels

Stadtplan München
Straße

Veranstaltungen
heute Vorschau Kino

muenchen.de Stadt-Branchenbuch
Branche?

Verkehrsinfo
Auto MWV Rad

Finanzen Stadtsparkasse München
TestBanking Filial-Suche

Besser leben mit M. SW
M-Bäder M-Energie

Compared to the previous examples, this page is more complex and integrated. It features a central news section with various links to specific services like the mayor's office, job market, Oktoberfest, and Tollwood festival. On the right side, there's a sidebar for M'net (ISDN/DSL provider) with search fields for the website and city hall, along with links for booking hotels, city planning, events, and financial services. The bottom right corner contains a yellow box with the text 'Combined Direct access to services (e.g. hotels, map, events)'.

Site Elements – Search, Site Guides

<http://www.webstyleguide.com>

- Site Guides / Site Maps
 - Provide an overview (you can't flip through the pages of a web site)
 - extent & size
 - organization
 - and context
 - Tables of contents
 - keyword indexes of the information in your Web
- Search
 - For large sites a “must”
 - Update the search content for each change or on daily basis
 - Complement to navigation and site guide – not replacement
- “What is new”
 - If pages change often and visitors look for new content
 - For regular visitors
 - Listing of recent changes / additions
 - E.g. online software archive

Site Map – Example

The screenshot shows a Microsoft Internet Explorer window with the title bar "LMU - Institut für Informatik - Microsoft Internet Explorer". The menu bar includes "Datei", "Bearbeiten", "Ansicht", "Favoriten", "Extras", and "?". The toolbar includes "Zurück", "Vorwärts", "Suchen", "Favoriten", "Medien", and various document-related icons. The address bar shows the URL "http://www_ifi.lmu.de/Impressum/Sitemap/indexf463.html?ref=84". The page content is a site map for the Institute for Informatics at LMU. The main navigation menu at the top includes "Aktuelles", "Institut", "Studium", "Forschung", "Kontakt", "Impressum", and "Suche". A language selection icon for English is also present. The site map is organized into several categories:

- Aktuelles**: Willkommen, Informatik an der LMU, Stellenangebote
- Institut**: Lehr und Forschungseinheiten, Drittmittelprojekte, Institutsleitung, Bibliothek, Rechner-Pools
- Veranstaltungen**: Kolloquium, Schulvorträge
- Studium**: Allgemeines, Einführung, Voraussetzungen
- Studiengänge**: Überblick, Informatik
- Medieninformatik**: Studienberatung, Prüfungsamt, Nebenfächer zu Informatik, Eignungsfeststellung, Bioinformatik
- Lehramt**: Überblick, Studienberatung, Ordnungen, Nebenfach Informatik
- Lehrveranstaltungen**: Aktuelles Semester, Frühere Semester, Semestertermine, Projekt- und Diplomarbeiten
- Bibliothek**, **Rechner-Pools**, **Fachschaft, Lernhilfen**, **Schulinformationen**
- Forschung**: Lehr- und Forschungseinheiten, Drittmittelprojekte, Stellenangebote
- Kontakt**: Adressen, Lehr- und Forschungseinheiten, Institutsleitung
- Sprechstunden**: Studienberatung, Prüfungsangelegenheiten, Professorensprechstunden, Verkehrsanbindung
- Impressum**: Sitemap

Index – Example

IKEA | Produkte A-Z - Microsoft Internet Explorer

Datei Bearbeiten Ansicht Favoriten Extras ?

Zurück Suchen Favoriten Medien Links Wechseln zu

Adresse http://www.ikea.de/webapp/wcs/stores/servlet/ProductsAZView?storeId=5&langId=-3&catalogId=10101

IKEA DEUTSCHLAND wohnst du noch oder lebst du schon?

Produkte wählen Sie hier... ▾

IKEA in deiner Nähe Service Homeshopping IKEA family Warenverfügbarkeit Produkte von A-Z Suchen

Startseite Produkte A-Z Mein Profil

Produkte A-Z

A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z

A

ADMETE Stuhlkissen
AFTONSTUND Tischleuchte
AGAM Kinderhochstuhl
AGEN Kindersessel

AGEN Raumteiler
AGEN Sessel
AGEN Truhe
AGERUM Bücherregal

AINA Kissen
AINA Meterware
AKTION Gewürzmühle
ALÄNG Standleuchte

ALÄNG Tischleuchte
ALBÄCK Tisch
ALFHILD 2 Gardinenstabs
ALFHILD BLOMMA Kissen

ALFHILD FÄGEL Kissen
ALFHILD Meterware
ALFHILD Wolllhurrie
ALFONS Stuhl

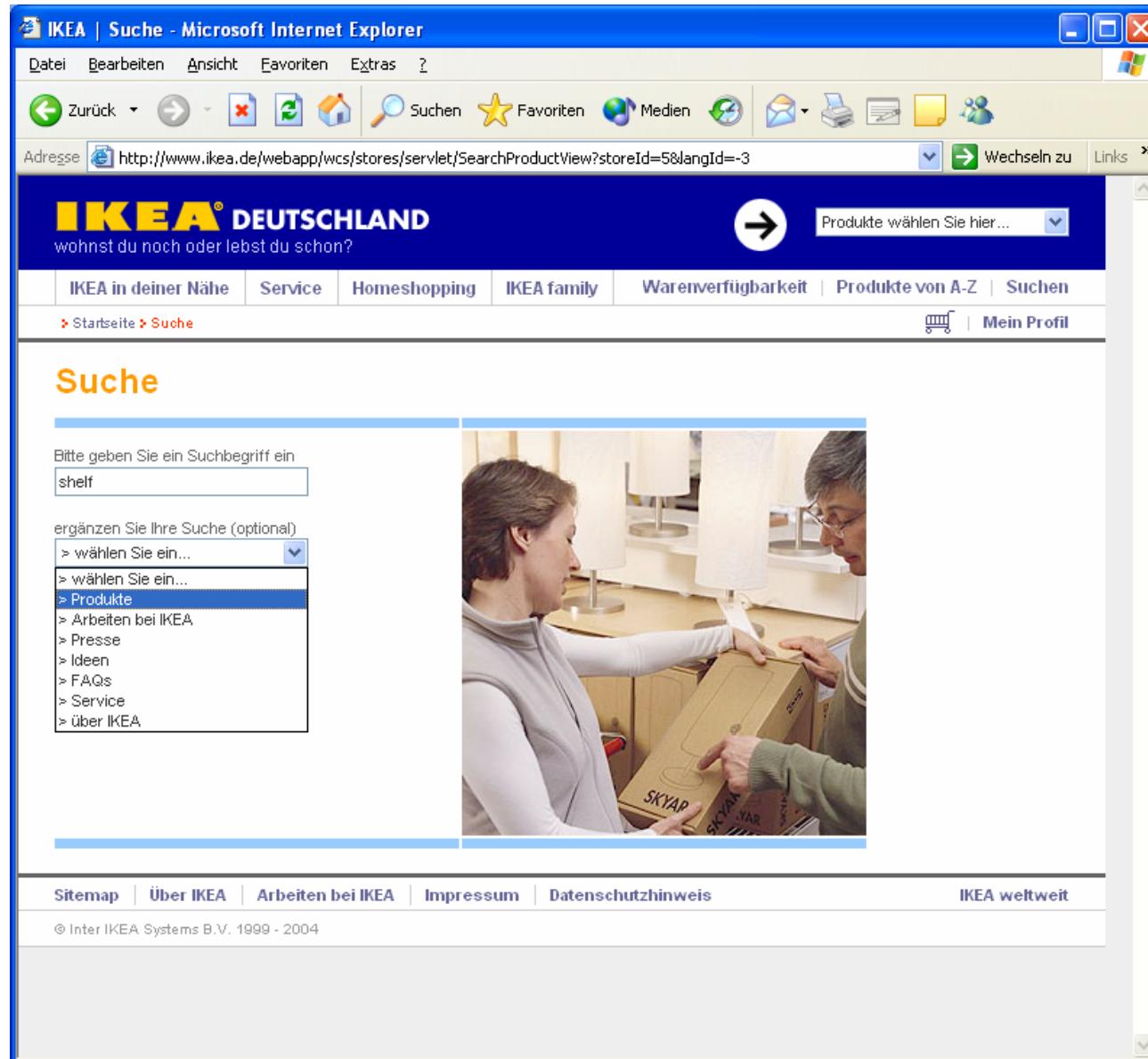
Suchen Sie etwas?

Produkt Suche nach Name oder Kategorie. IKEA benennt Produkte nach nordischen Namen, Provinzen, Städten, Inseln oder Flüssen. Ä, Å und Ö sind unter "Ä" und "Ö" zu finden.

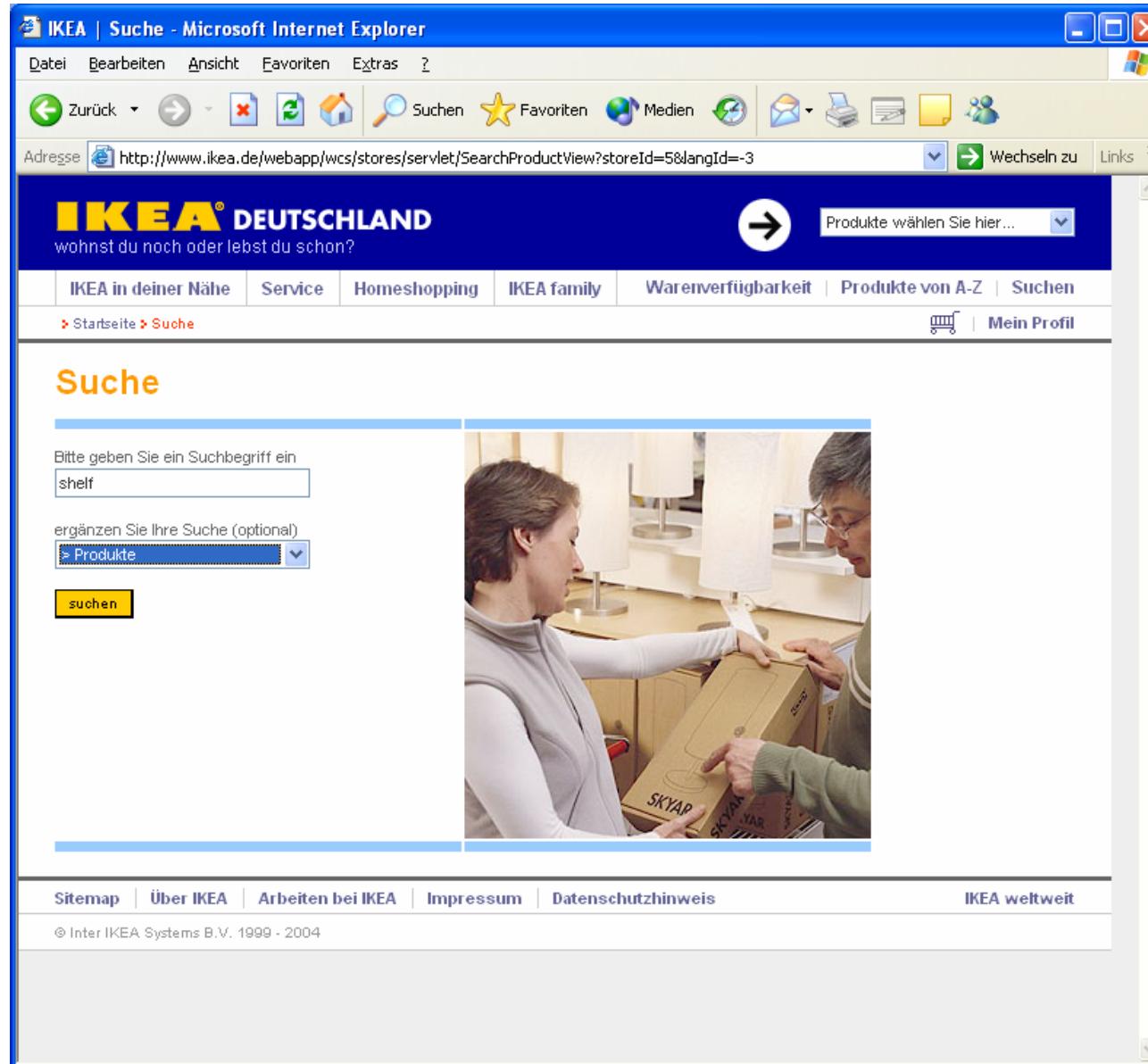
Suche nach Produktkategorie



Index – Search



Index – Search



Site Elements – Contact information and user feedback

<http://www.webstyleguide.com>

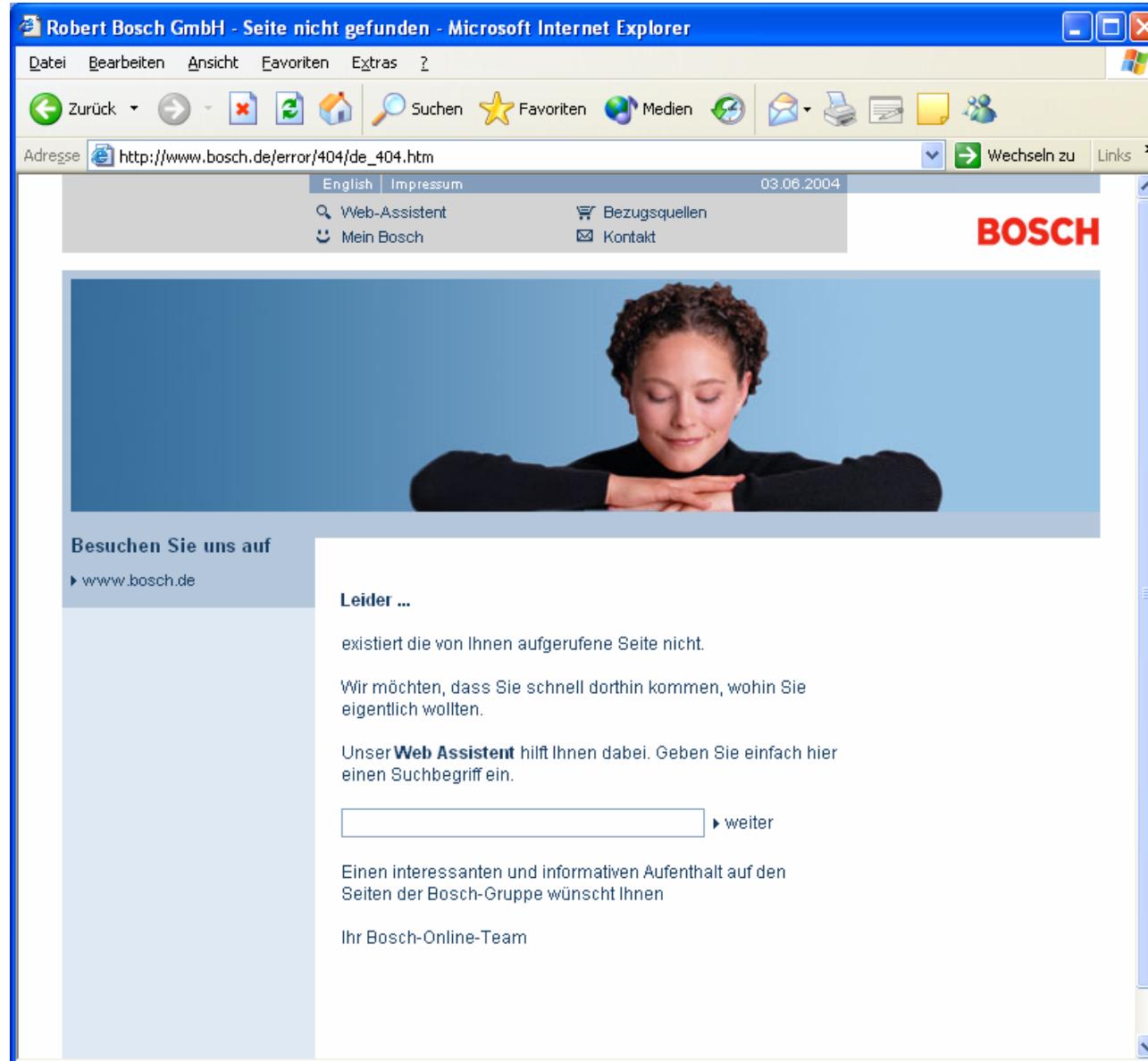
- Contact Information
 - Information other way to make contact
 - At least Email
 - Depending on the purpose of the site
 - Postal address
 - Visitors address, map, directions, parking, public transport, ...
 - Phone & Fax
 - ...
- Feedback
 - Private feedback: Forms, Email
 - Public feedback: Guestbook
 - Be aware of the implications of public feedback
 - Feedback requires someone to handle it!
- In Germany in most cases an “Impressum” is required
 - Teledienstegesetz §6
 - If the site provides “geschäftsmäßige Teledienste”
 - See Teledienstegesetzes (TDG)

Site Elements – FAQ

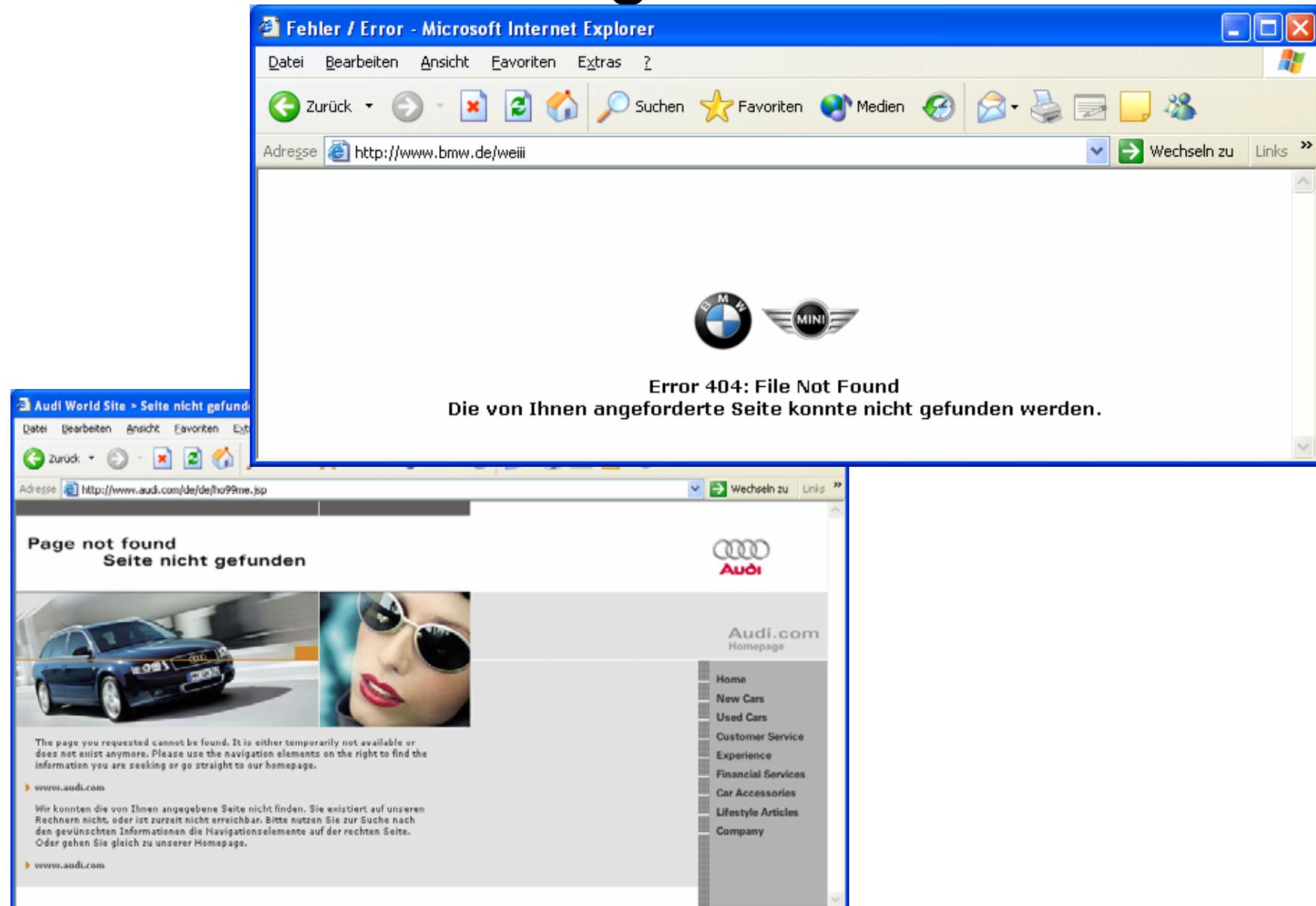
<http://www.webstyleguide.com>

- FAQ – Frequently Asked Questions
- Can help to
 - Increase usability
 - Decrease support spending
- To build up FAQs
 - Answer question received by support/comments/feedback
 - Check if the question can be avoided (e.g. by adding information at the right place)
 - If question can not be avoided and is generally relevant (if you expect someone else with the same question)
 - Generalize question and answer
 - Add to FAQ

Custom Error Pages



Custom Error Pages



References

- <http://www.webstyleguide.com>