



# Don't Blame the Localizers!

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W3C

## Objectives



Briefly introduce:

- ▶ Potential barriers to localization created by designers and developers.
- ▶ The W3C Internationalization Activity's Techniques documents.



- About the W3C

- Localization issues
- W3C Techniques

- ▶ Who are the W3C?



▶ Who are the W3C?



▶ What is the W3C?



**Document technologies**

the Web for human consumption: (X)HTML, CSS, XForms, SVG, SMIL, Voice...

**Base technologies**

XML, XML Namespaces, XSLT, XML Schema ...

**Web Services**

machine-to-machine communication: SOAP, WSDL, ...

**Semantic Web**

abstracting and combining information: RDF, ...

**Web Addresses**

keeping everything together: URIs, IRIs, ...

**User Representation**

accessibility, device independence, multimodal, internationalization ...

- About the W3C
- **Localization issues**
- W3C Techniques



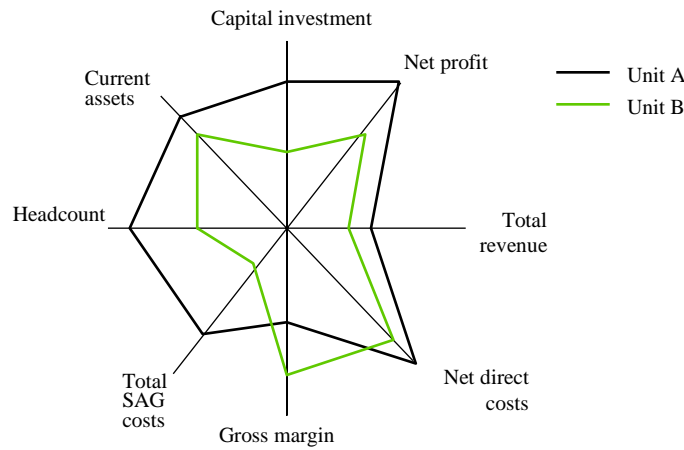
▶ Learning styles

"... one Latin American teacher recently complained to me that the US-manufactured and well-translated educational software currently being used in his country's primary schools presupposed 'solitary problem solvers', whereas his culture stressed collective problem-solving."

Kenneth Keniston,  
Language International, May 1996



▶ Graphical representation



▶ Views of the world



The screenshot shows the Yahoo! UK homepage with the following elements:

- Search Bar:** "Search the Web" with options for "All of the web", "UK only", and "Images only".
- Navigation:** Web, Images, Business Finder, News.
- Today! Play Lotto online:** £5.5m Online millionaire created!
- Shop:** Travel, Shopping, Cars, Jobs, Property, News, Mobile.
- Organise My Yahoo!** Comparison, Photos, Calendar, Briefcase, PayDirect.
- Connect:** Mail, Messenger, Broadband, Groups, Chat, GeoCities.
- Fun:** Personals, Games, Movies, Music, TV, Horoscopes, Creatives.
- Info:** Finance, News, Sport, Weather, Personal Finance, Business Finder, Small Business.
- BT Yahoo! Broadband:** Free Modem & Free Activation, Faster email, Faster downloads, Faster surfing, Exclusive online savings.
- Surf up to 10x faster than dial-up!**
- Personal Assistant:** Discover the new Yahoo! Mail, FREE! Take the next step: Sign up.
- Web Site Directory:** Arts & Humanities, News & Media, Business & Economy, Recreation & Sport, Computers & Internet, Regional, Education, Social Sciences, Entertainment, Science, Government, Social Science, Health, Society & Culture.
- Marketplace:** Pull a prank on a friend's mobile! 1000s of Ringtunes.
- Shopping:** Travel - Cars - Jobs - Property.
- News:** UK: 1000s among injured in deadly Iraq blasts, Anti-terror police raid four more addresses, Car bomb kills at least 10 in Riyadh, EU: Focus group MacDermott assaulted in pub, Dylan Thomas pub up for auction, Regulator seeks overhaul of public service TV, German army to lift ban on sex in barracks, FTSE Closed: Quote - Activity - Market, News, Markets, Dow 10289 +0.24%, Nasdaq 1908 +0.35%, News - Sport - Fantasy - Finance - Weather.

▶ Views of the world



The screenshot shows the Yahoo! UK & Ireland Website Directory. The page is titled "Website Directory Sites organised by subject." and lists various categories such as Arts & Humanities, Business & Economy, Computers & Internet, Education, Entertainment, Government, Health, News & Media, Recreation & Sport, Reference, Regional, Science, Social Science, and Society & Culture. An orange arrow points to the "Arts & Humanities" category.

▶ Views of the world



The screenshot shows the Yahoo! Guide Web - Classement thématique de sites. The page lists various categories such as Actualités et médias, Commerce et économie, Informatique et Internet, Santé, Enseignement et formation, Institutions et politique, Sciences et technologies, Sports et loisirs, Art et culture, Divertissement, Classement géographique, Références et annuaires, Société, and Sciences humaines. An orange arrow points to the "Sports et loisirs" category.

Views of the world



YAHOO! UK & IRELAND

Yahoo! カテゴリ      サイトの推薦

|  |  |
|--|--|
| <b>エンターテインメント</b><br>映画, 音楽, 芸能人, コミック, 占い ... | <b>メディアとニュース</b><br>テレビ, ラジオ, 新聞, 雑誌 ...         |
| <b>趣味とスポーツ</b><br>アウトドア, ゲーム, 車, スポーツ, 旅 ...   | <b>ビジネスと経済</b><br>ショッピング, B2B, 雇用, 金融 ...        |
| <b>芸術と人文</b><br>写真, 建築, 美術館, 歴史, 文学 ...        | <b>各種資料と情報源</b><br>図書館, 辞書, 郵便, 電話番号 ...         |
| <b>生活と文化</b><br>子ども, 環境, グルメ, 障害者 ...          | <b>コンピュータとインターネット</b><br>ハードウェア, ソフトウェア, WWW ... |
| <b>教育</b><br>大学, 専門学校, 小中高, 資格 ...             | <b>政治</b><br>政治, 行政, 国会, 法 ...                   |
| <b>健康と医学</b><br>病院, 病気, ダイエット ...              | <b>自然科学と技術</b><br>動物, エコロジー, 地球, 天文, 工学 ...      |
| <b>社会科学</b><br>経済学, 社会学, 言語, 政治学 ...           | <b>地域情報</b><br>日本の地方, 世界の国 ...                   |

Views of the world



Directory siti Web - I siti ordinati per argomento.      Proponi il tuo sito

|   |  |
|---|--|
| <b>Economia e aziende</b><br>Lavoro, Finanza, Shopping, B2B ...       | <b>Società e culture</b><br>Sesso, Amore, A tavola, Oroscopo ...           |
| <b>Aree geografiche</b><br>Paesi, Città italiane, Meteo, Mappe ...    | <b>Divertimento e spettacolo</b><br>Musica, Cinema, Celebrità, Fumetti ... |
| <b>Attualità e media</b><br>Giornali, TV, Gossip ...                  | <b>Informatica e internet</b><br>Giochi, Cartoline, Chat, Software ...     |
| <b>Arte e cultura</b><br>Letteratura, Racconti erotici, Moda ...      | <b>Sport e tempo libero</b><br>Viaggi, Sport, Calcio, Auto ...             |
| <b>Scienza e tecnologia</b><br>Cellulari, Animali, Ecologia ...       | <b>Medicina e salute</b><br>Gravidanza, Benessere, Malattie ...            |
| <b>Politica e istituzioni</b><br>Governo, Diritto, Fisco, Partiti ... | <b>Scienze umane e sociali</b><br>Sessuologia, Storia, Geografia, Blog ... |
| <b>Risorse</b><br>Calendari, Elenchi telefonici ...                   | <b>Istruzione e formazione</b><br>Università, Scuole, Dizionari, Libri ... |

▶ Views of the world



Web-Verzeichnis - thematisch gegliederte Sammlung von Web-Sites

|   |   |
|---|---|
| <p><b>Ausbildung &amp; Beruf</b><br/> <a href="#">Uni/FH</a>, <a href="#">Schulen</a>, <a href="#">Jobs</a>, <a href="#">Bewerbung...</a></p> <p><b>Computer &amp; Technik</b><br/> <a href="#">Hard-</a>, <a href="#">Software</a>, <a href="#">PC-Spiele</a>, <a href="#">E-Technik...</a></p> <p><b>Finanzen &amp; Wirtschaft</b><br/> <a href="#">Börse</a>, <a href="#">Geld</a>, <a href="#">Immobilien</a>, <a href="#">Steuern...</a></p> <p><b>Firmen</b><br/> <a href="#">B2B</a>, <a href="#">Bauen</a>, <a href="#">Kleidung</a>, <a href="#">KFZ</a>, <a href="#">Sex...</a></p> <p><b>Forschung &amp; Wissenschaft</b><br/> <a href="#">Geschichte</a>, <a href="#">Psychologie</a>, <a href="#">Bio</a>, <a href="#">Astro...</a></p> <p><b>Gesellschaft &amp; Politik</b><br/> <a href="#">Recht</a>, <a href="#">Religion</a>, <a href="#">Frauen</a>, <a href="#">Jugend</a>, <a href="#">Gay...</a></p> <p><b>Gesundheit</b><br/> <a href="#">Medizin</a>, <a href="#">Krankheiten</a>, <a href="#">Psyche</a>, <a href="#">Pharma...</a></p> <p><b>Internet &amp; Kommunikation</b><br/> <a href="#">Chat</a>, <a href="#">E-Mail</a>, <a href="#">Suchen</a>, <a href="#">Handy &amp; SMS...</a></p> | <p><b>Lifestyle</b><br/> <a href="#">Mode</a>, <a href="#">Esoterik</a>, <a href="#">Essen &amp; Trinken</a>, <a href="#">Erotik...</a></p> <p><b>Nachrichten &amp; Medien</b><br/> <a href="#">Wetter</a>, <a href="#">TV</a>, <a href="#">Zeitschriften</a>, <a href="#">Zeitungen...</a></p> <p><b>Nachschlagen</b><br/> <a href="#">Lexika</a>, <a href="#">Zitate</a>, <a href="#">Wörterbücher</a>, <a href="#">Tel.-Nr...</a></p> <p><b>Reisen &amp; Freizeit</b><br/> <a href="#">Routenplaner</a>, <a href="#">Autos</a>, <a href="#">Hobbys</a>, <a href="#">Spiele...</a></p> <p><b>Sport</b><br/> <a href="#">F1</a>, <a href="#">Fußball</a>, <a href="#">Rad</a>, <a href="#">Ski</a>, <a href="#">Tennis</a>, <a href="#">Outdoors...</a></p> <p><b>Städte &amp; Länder</b><br/> <a href="#">Dt. Städte</a>, <a href="#">EU</a>, <a href="#">Länder</a>, <a href="#">Karten</a>, <a href="#">Sprachen...</a></p> <p><b>Umwelt &amp; Natur</b><br/> <a href="#">Tiere</a>, <a href="#">Pflanzen</a>, <a href="#">Berge</a>, <a href="#">Wetter</a>, <a href="#">Energie...</a></p> <p><b>Unterhaltung &amp; Kunst</b><br/> <a href="#">Cooles</a>, <a href="#">Humor</a>, <a href="#">Kino</a>, <a href="#">Musik</a>, <a href="#">Literatur...</a></p> |
|---|---|

- ❑ Ensure you have considered the customer's lifestyle: you may need to adapt content as well as translate !





▶ Don't take it literally...



Tokyo hotel:

- ◆ Cooles and heates. If you want the condition of cool in your room, please control yourself.

Paris hotel:

- ◆ Guests are expected to complain at the office between the hours of 9am and 10am each day.

Tokyo hotel:

- ◆ You are invited to take advantage of the chambermaid.

Vienna hotel:

- ◆ In case of fire, do your utmost to alarm the porter.

▶ Sentence structure



They are speaking to her from my new house.

Están hablándole desde mi casa nueva.

He puhuvat hänelle ollessaan uudessa talossani.

私の新しい家から彼女と話しています。

f í f t A Ī N Ī Ā ĵ E Ā Ā Ā M

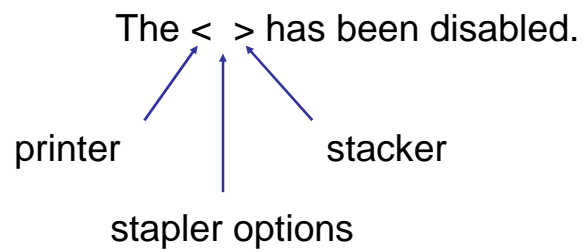
## ▶ Variables



There were <X> spelling mistakes in file: <Y>

Datei <Y> enthält <X> Rechtschreibfehler.

## ▶ Text re-use



- ❑ Ensure you have considered the customer's lifestyle: you may need to adapt content as well as translate !
- ❑ Don't leave translation to the translators: build in translatability



▶ Coding & encoding

Hogy a Világháló valóban az egész világé lehessen!  
!

ליצור מהרשת רשת כלל עולמית באמת!

전 세계의 월드 와이드 웹으로 만들기!

缔造真正全球通行的万维网

締造真正全球通行的萬維網

ワールド・ワイド・ウェブを世界中に広げましょう

Κάνοντας τον Παγκόσμιο Ιστό πραγματικά Παγκόσμιο

वर्ल्ड वाईड वेब को सचमुच विश्वव्यापी बना रहे हैं !

Сделаем "Всемирную паутину" действительно всемирной!

"Дүниежүзілік торды" нағыз дүниежүзілік етеміз!

Making the World Wide Web world wide!



▶ Text direction



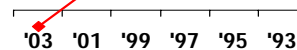
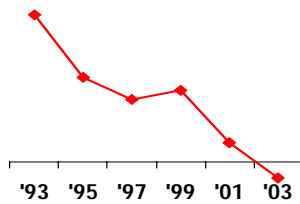
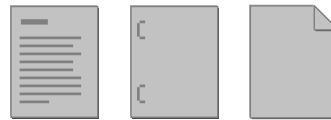
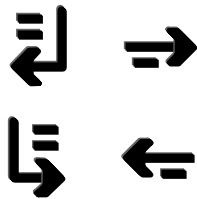
Ⲁⲓ Ⲁⲓ Charles ⲈⲀⲓ Ⲁⲓ Ⲁⲓ Camilla

Camilla ⲀⲓⲀⲓ CharlesⲀⲓⲀⲓ

129 Cahanman St., Bnei-Brak.

.÷øá-éã , 129îî ãë 'çø

▶ Directional bias



▶ Directional bias



▶ Directional bias



▶ Directional bias



**استبدال** [us ع]

البحث عن: الشمسي

الاستبدال ب:

إغلاق

بحث عن التالي

استبدال

استبدال الكل

تجاهل التشكيل

مطابقة الكلمة بالكامل

تجاهل الكشيبة

مطابقة الحروف الصغيرة والكبيرة

---

**رأغبندسا** [eu 3]

نوع شعبا:

رأغبندسا

نوع رأغبندسا:

رأغبندسا

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- ❑ Ensure you have considered the customer's lifestyle: you may need to adapt content as well as translate !
- ❑ Don't leave translation to the translators: build in translatability
- ❑ Plan for support of non-Latin scripts during the design phase



## ▶ English?



The outcome was a heavy defeat for the new **House Democratic** leadership. **Ways and means committee** chairman Dan Rostenkowski looked particularly inept. He took a vacillating, off-again, on-again, stand and eventually lost control of his committee. **Majority Leader** Richard Gephardt, failed to recognize the strength of the drive for a **capital-gains** cut. Finally, but too late, he helped draft the Democratic alternative - which combined deductible **IRA** contributions for everybody with an increase in the tax rate on people with incomes over **\$200,000**. The capital gains cut, he declared, was "designed to keep **Leona Helmsley's** dream alive - that only little people pay taxes." Republicans retorted, in effect, There you go again, proposing a tax *increase*. "Fish **gotta** swim, birds **gotta** fly, and Democrats **gotta** raise taxes" was the way one **G.O.P.** quip put it.

## ▶ Non-translatable ideas



Montre qui tu es !

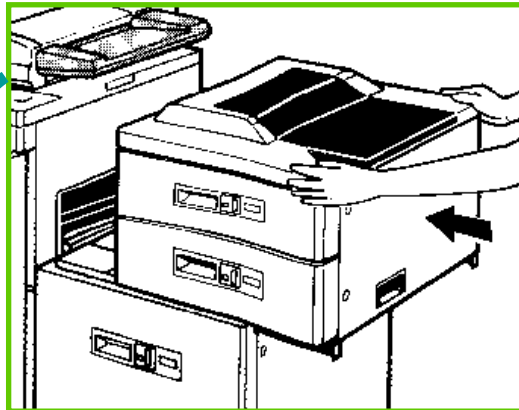
Nothing sucks like an Electrolux!

The 5 R's

▶ Culture-specific graphics



▶ Symbolism





▶ Symbolism



▶ Summary



- Dialectal differences
- Use of names
- Culture-specific allusions
- Values & taboos
- Colour & aesthetics
- Symbolism
- Body language
- etc...

- ❑ Ensure you have considered the customer's lifestyle: you may need to adapt content as well as translate !
- ❑ Don't leave translation to the translators: build in translatability
- ❑ Plan for support of non-Latin scripts during the design phase
- ❑ Test your cultural assumptions



▶ Graphic text



Global Design helps you reduce time to market and cost for international products, at the same time as improving customer satisfaction.

It is a 'Quality' approach to international product design - addressing international issues early enough to avoid significant non-conformance costs later in the product cycle.



▶ Ambiguous text



Error on fseek operation during the individual event processing of the preprocess operation of the most recent error log processing.

You may not kill the Xerox manager.

- ❑ Ensure you have considered the customer's lifestyle: you may need to adapt content as well as translate !
- ❑ Don't leave translation to the translators: build in translatability
- ❑ Plan for support of non-Latin scripts during the design phase
- ❑ Test your cultural assumptions
- ❑ Change your process where necessary to enable effective localization



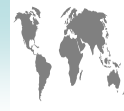
## Key points

- ❑ You need to internationalize, not just localize
- ❑ Internationalization is the job of the designer and developer
- ❑ You need to know your (multilingual) customer and market
- ❑ All this is relevant from day one
- ❑ You need guidance on how to do this



## Outline

- ❑ About the W3C
- ❑ Localization issues
- ❑ **W3C Techniques**



▶ Authoring Techniques for XHTML and HTML Internationalization



- ❑ Overview  
<http://www.w3.org/International/geo/html-tech/outline/html-authoring-outline.html>
- ❑ Characters and encodings  
<http://www.w3.org/International/geo/html-tech/tech-character.html>
- ❑ Specifying the language of content  
<http://www.w3.org/International/geo/html-tech/tech-lang.html>
- ❑ Handling bidirectional text  
<http://www.w3.org/International/geo/html-tech/tech-bidi.html>

▶ Other articles and tutorials



- ❑ <http://www.w3.org/International/>



Thankyou

<http://www.w3.org/International/>  
<http://www.w3.org/People/Ishida/>