From XHTML to CC/PP

W3C standards not only for mobile commerce

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http://www.w3.de
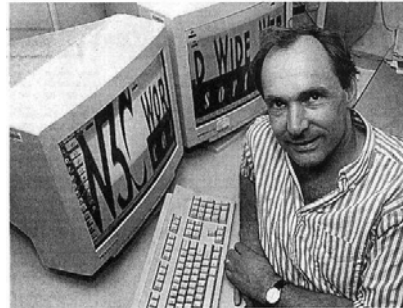
Eat Your Own Dogfood !!!

- this presentation is written in XHTML, one of the standards presented in this paper
- it can be presented on most of the usual browsers,
- browser that support CSS2 and medium "Projection" may be used to give a "slide" presentation (tested with Opera 5):
  - display page in normal mode,
  - switch to "Projection" mode (usually "F11"),
  - the adjustment of style and font sizes to the screen size is done by a Javascript. So results may be better with Javascript enabled
  - on some browsers (with Javascript enabled) a "reload" (usually "F5") might be needed to adjust to screen size,
  - switch slides with "page down" and "page up",
  - when finished leave "Projection" mode (usually "F11" again).
- The printed version of this document shows the Presentation in the page foot

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WWW-Technology

- 1989-1992 Tim Berners Lee develops in Cern
- 1994 W3C (MIT, then INRIA and a bit later KEIO University)
- 1995-1997 Browserwar Microsoft - Netscape
- 1998 W3C Offices in Europe
- 1998 XML
- today: WAI, XHTML, Style Sheets, XML-Schema, RDF, CC/PP ...
- "XML is the ASCII of the Web"

Tim Berners-Lee: Erfinderstolz — Foto: AP

Folie: 3

About W3C

- W3C is a Consortium of industry, research and political organisations
- W3C is leading the Web to its full potential
- W3C develops technologies (specifications, guidelines, software, and tools)
- W3C works on universal access, the semantic Web, the Web of trust, interoperability, decentralization and attractive multimedia
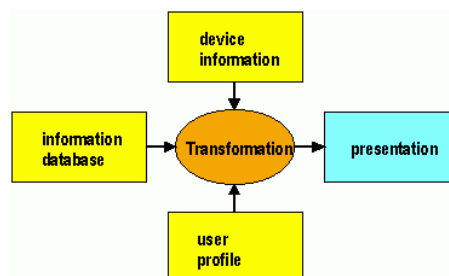
Folie: 4

The Problem with mobile

- don't know in advance where document will be displayed
- e. g. it might be on a
  - a desktop
  - a TV
  - a PDA
  - a mobile phone
  - a portable computer
  - a voice browser (e. g. in a car radio)
- depending on the device: means for interactivity might vary
- squeezing, zooming, scrolling is not a good solution in most cases
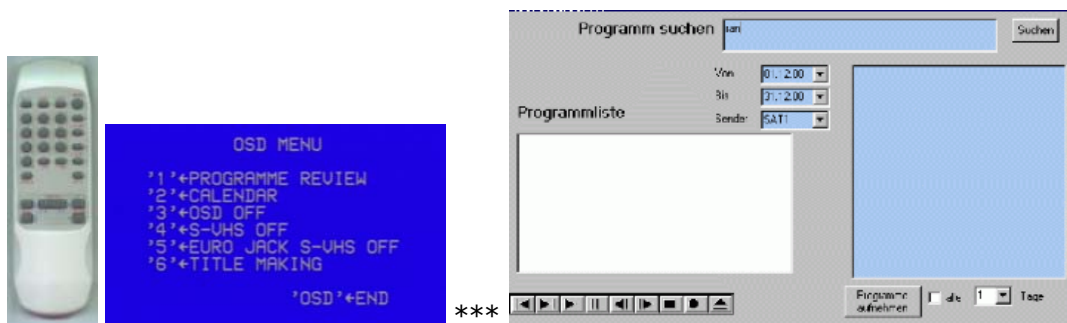
Folie: 5

W3C's approach to mobile

- separate presentation from structure and information
- store structure and information device independent
- add device dependant presentation instructions
- tailor presentation to user's needs

Folie: 6

Interaction with technical devices

- interface usually represet a bottleneck
- usability depends on the "width" of the interface
- example: video recorder programming

Interaction with mobile devices

- mobile devices tend to be narrow
- mobile need special attention in interface design
- mobile is not allways the same

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W3C's XML and HTML

- HTML:
  - usually mixes up structure and presentation
  - has a limited set of allowed tags with predefined meaning
  - is widely used on available browsers and servers
- XML:
  - is pure structure
  - there is no implied style with tags
  - XML capable browsers navigate through the structure of a document rather than doing any formatting
- Style sheets CSS and XSL:
  - add or overwrite formatting information for tags
  - can distinguish different media (CSS2 defines the media types screen, print, aural, braille, embossed, handheld, projection, tty, tv, all)

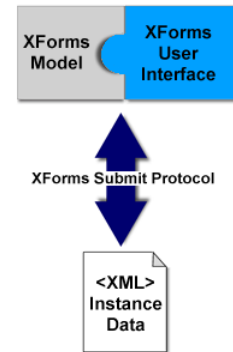# XHTML the future of the (mobile) Web

- reformulates HTML 4.01 in XML
  - migration path to XML
  - integrates HTML in the XML world
- modularisation of XHTML
  - defines XHTML subsets that can be combined with each other
  - allows definition of subset doctypes for "small" or "specialized" devices
  - allows extensions by defining new modules
- XHTML Basic subset of XHTML, based on XHTML modules
  - recommended XHTML modules for mobile devices
  - many companies of the wireless world have committed to XHTML basic

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XFORMS XML interaction

- applies XML philosophy to interaction
- separate purpose from presentation
- support structured form data
- scripting interfaces

```
<selectOne ref="pollOption" xform="poll"
  xmlns="http://www.w3.org/2001/06/xforms">
 <caption>How useful is this page to you?</caption>
 <choices>
   <item value="0">Not at all helpful</item>
   <item value="1">Barely helpful</item>
   <item value="2">Somewhat helpful</item>
   <item value="3">Very helpful</item>
 </choices>
</selectOne>
<submit xform="poll"  xmlns="http://www.w3.org/2001/06/xforms"/>
```
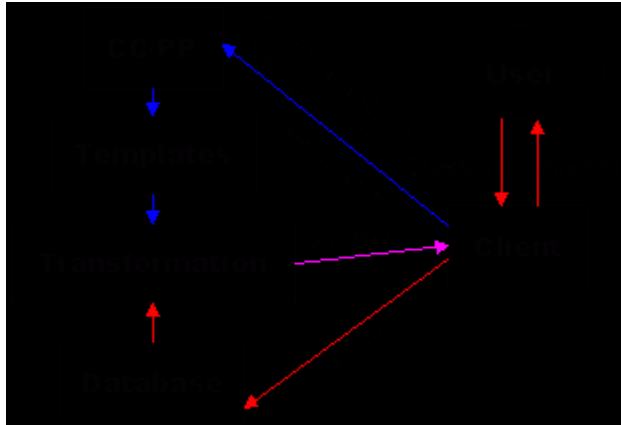

Folie: 11

Voice (VoiceXML)

- Voice "widens" the interface for phones and small devices
- voice might be usefull when display is not appropriate (e.g. in cars during driving)
- interaction by filling "audio forms"
- use of grammars to interpret what user says
- offer links to other "pages"

Folie: 12

Device Independance,
Capabilities and Preferences (CC/PP)

- tailoring information and presentation along:

- capabilities of device (hardware, software, display, audio ...)
- preferences of user (use of images, use of audio, ...)
- location of user (for location dependand information)
- RDF as base for descriptions
- *P3P also based on RDF may be used to negotiate privacy policy*

Folie: 13

W3C activities for mobile applications

- XHTML – modularisation
- XForms – working group
- ongoing work on Data model, UI and Protocol
- Voice Browser working group (VoiceXML)
- CC/PP working group
- Liaison with WAP Forum, and TV groups
- More work: XML protocol, semantic Web

Folie: 14

W3C Deutsches Büro

- launched April 1998 with support from EU at GMD
- german members April 1998: **2**, german members today: **30**
- Services
  - W3C point of contact for the german speaking area of Europe
  - newsletter
  - events
  - press releases
  - more on http://www.w3c.de
- cooperation with experts, publishers, event organisers

What you should consider

If you want to be at the leading edge of Web development you cannot ignore W3C

- make or buy?
- research only for the local market?
- avoiding dependences
- secure technological lead (mobile)

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