Data Personalization In Mobile Environment: The Content Adaptation problem

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Agenda

- “One Web” idea and W3C Best Practices
- Investigating the conformity to MWBP rules
- Model of content adaptation system
- Conclusion
One Web

- Mobile device dynamic growth
  - 2006: ~3bln users
  - 2013 (forecast): ~5bln users
- Existing content
  - For desktop devices only
  - Not take into account other types of devices with limited functionality

“Making the same information and services available to users regardless of the device they are using”
Best Practices

- **Mobile Web Best Practices**
  - Best Practices for delivering Web content to mobile devices
  - MWBP rules (overall behaviour, navigation and links, page layout and content, page definition, user input)
  - W3C Recommendation, 2008

- **Mobile Web Application Best Practices**
  - Support for the development of mobile Web applications
  - W3C Recommendation, December 2010
Desktop vs Mobile Web Languages

Web Languages

- Desktop
  - HTML
  - XHTML
- Mobile
  - XHTML Basic
  - XHTML Mobile Profile
Investigating the conformity to MWBP

- An attempt at estimating the services conformity to W3C MWBP recommendation

- Websites
  - Popular mobile web sites diversified as regards their functionality (search engines, social services, electronic banking, information services)

- Software
  - A validation W3C mobileOK checker
## Conformity to MWBP

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<tr>
<th>Website</th>
<th>Critical</th>
<th>Severe</th>
<th>Medium</th>
<th>Low</th>
<th>Conformity level</th>
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</table>
Basic Content Adaptation Model

Client Side ➔ In-Network ➔ Server Side

Content delivery
Model of content adaptation
Conclusion

- **Advantages**
  - Greater effectiveness of information presentation on a mobile device
  - Increase the number of devices able to effectively display given information
  - Increase the number of potential recipients of information

- **Disadvantages**
  - Necessity to place the system in the computer infrastructure of a mobile network provider or content provider
  - The ability to dynamically adjust existing resources to satisfy only part of Mobile Web Best Practices Recommendations
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Thank you for your attention