Device Information

- Summary of device capabilities
- Basis for negotiation and adaptation
- Should restrict to essential
- Markup, modules, versions
- Dimensions and limits
- Who decides what is essential?
- Content managers (markup, plug-ins, versions)
- Marketing/branding (colours, size, style, weight?)
- Adapters (markup lineage, modules, anomalies)
- Operator (compression, multi-part, push methods)
- QA (memory capacity, limits)
- App developers (OS, CPU, capacity)
- Security (protocols, identity, location)
- Impossible to know what is essential.
Device Profiling

- Manual activity to discover device information
- Minimum: assign device to category
- Maximum: Discover everything about device
- Adaptors: capture what is or may be useful for adaptation
- Complex new devices can take hours to profile
Capture request to discover identifying signature

- User Agent header
- Accepts header
- Custom headers
- CC/PP or UAProf
- Headers are not to be trusted
Basic content and interaction tests

- Default handling of content
- Supported features
- Limits
- "Bugs"
- General look & feel
- Usability
Device Evolution

- New generations inherit most features.
- Device information hierarchy is a natural model.
- No single hierarchy is perfect
Access to Device Information

- Expressions in markup (e.g. XPath)
- Custom controls, tag libraries, APIs etc.
- DOM based (e.g. via JavaScript)
- Server side: does it have all of the device information?
- Client side: implies processing is local
- Should device information have namespaces?
Device Information Reliability

- Who validates the information?
  - Neutral third party
  - Industry consortium
  - Open Source activity
- Who is authoritative?
- My idea of "usable" may not match your idea
- What are the official units?
- Conflict resolution issues
- Error correction issues
Device Information Technologies

- W3C
- CC/PP
- DISelect
- CSSMQ
- OMA
- UAProf
- Other
- JCP JSR 188
- WURFL
- Commercial databases