

jboye09
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Web Standards

Do we need more of them?

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W3C WORLD WIDE WEB
consortium

Contents

- Why more standards?
- Standardise what / where?
- Needed standards emerging?
- Questions about specification approach?

Why (more) standards?

Web standards

Examples: HTML, XML, CSS, SKOS, ...

- Made for the web
- Used on the web
- Used outside the web
 - Well-designed format, all-purpose use
 - Example: XML
 - Software implementations
 - Example: Open Source
 - Devices have web browsers

Web works! Why more standards?

Used in new ways!

- Broadband: heavy content (audio, video, ...)
- Wireless: mobile in geography (location, ...)
- Devices: wide range (cell phones, ... desktops, ... in cars, ... kiosks, ...)
- Users: global – languages, cultures, ...
- Content: rich
- Services: critical (security, ...), with state
- Applications: rich (office tools, games, ...)

More standards or not?

Another kind of web!

New requirements/needs.

- Ad-hoc solutions
 - Lock-in, monopoly, fragmentation, ...
- Standardised solutions
 - Vendor-independent, competitive ecosystem
 - Composable, interoperability

Evolutionary forces (who? why?)

- Users:
 - prefer standards ... for critical needs ... if sufficient!
 - Vendor independence
- Providers/suppliers:
 - Monopoly:
 - "No standards"
 - Oligopoly:
 - Some base standards ... that they control!
 - Create walled gardens on top
 - Competitive market (many actors):
 - Solid standardised foundation
 - Create added-value on top

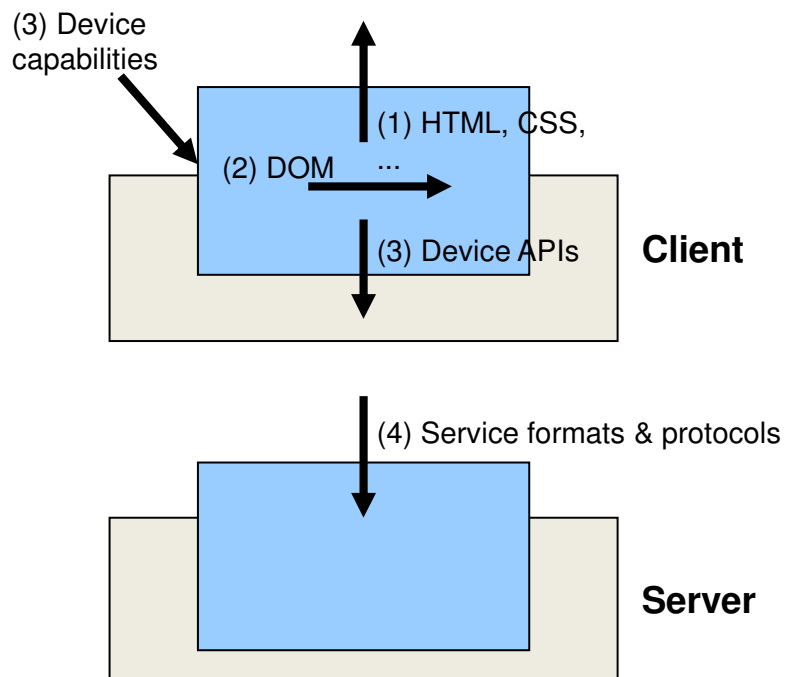
Standardise what where?

Web Standards Setting Orgs

- World Wide Web Consortium (W3C)
 - Core standards (e.g., HTML, CSS, XML, DOM, "AJAX", ...)
- WHAT-WG (Web Hypertext Application Technology Working Group)
 - "new HTML" → W3C
- OASIS
 - Specific application standards (e.g., ebXml)
- ECMA
 - ECMAScript (JavaScript)
- Other topics, such as
 - Web Services Interoperability (WS-I)
 - Cloud Computing (NIST, ...)
 - OpenSocial (Google, ...)

Technology Spheres

- Needs from
 1. GOW ("Good oldfashioned web")
 2. Rich internet agents,
 3. Widgets, mobile, devices, ...
 4. Web services, ...



Needed standards emerging?

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Examples of active standardisation

- HTML
- Devices
- Widgets
- Data

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HTML

- HTML 5 !
 - Builds upon HTML 4, XHTML1, DOM2
 - Initial work in WHAT-WG
- Support for video, canvas, ...
- Questions addressed:
 - Modularization?
 - Decentralised extensibility?
 - Annotations? ("microformat", RDFa, ...)
- Current main market: the web!

Devices

- Device characteristics/functionality
- New types of devices
 - Cell phones, handheld, in cars, on bikes, in TV, in radio, ...
- Additional functionality on device
 - Camera, microphone, speakers, address book, geoposition, sensors, ...
- Standards for:
 - API for access to functionality/features
 - Security policies
- Current main market: content for mobile phones!

Widgets

- Small dedicated applications
 - Games, clocks, stock market ticker tape, weather, ...
- Simplify use
 - Deliver over the web, one-click installation
 - Constructed using web technologies (HTML, CSS, EcmaScript, ...)
- Standardised packaging, download, installation
- Current main market: web innovation

Data

- Increased use of data on the web
- "The web of data"
- Rich data models
 - Semantic web technologies
- Interoperability with traditional data repositories
 - Services mapping relational DB to SemWeb
- Current main market: public sector

Needs, but will it happen?

- Fonts
 - Real web resources?
 - Property rights!
 - Licences, DRM, ...
- Delivery context
 - Context dependent content
 - Personal preferences, device capabilities, operating environment, ...
- Video/audio codecs
 - Standard codecs?
 - Royalty-free codec?

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 - Standard codecs?
 - Royalty-free codec?
- Obstacles: business models; market segmentation

Questions about specification approach?

Tensions

- Standardise or not? Examples: codecs, fonts, ...
- Declarative standards or script hacks? Example: XForm
- Modularize or not? Example: HTML5
- Extensibility or not? Example: HTML5
- Rebuild or update/extend? Example: HTML5 vs XHTML)
- Profiles or not? What profiles? Example: mobile profiles for CSS.

Conclusions

- The web is still growing up
 - More things need to be standardised
- Are important things being standardised?
 - Current power/forces decide
- Are emerging standards good?
 - Current power/forces decide
 - The market will decide
- Do we care enough about standards?
 - In general: should be more concerned!
- Roundtable this afternoon:
 - "what do **you** want from standards?"

Thanks for your attention!
Questions?