



# The Business Value of Open Standards

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# Key W3C standards for the Web

- HTTP
- HTML and XHTML
- CSS
- The W3C DOM

# HTTP

Development of HTTP (Hypertext Transfer Protocol) was coordinated by the W3C and the IETF. HTTP was originally created by W3C Director Tim Berners-Lee, who invented the World Wide Web, and he is one of the co-editors of [RFC 2616](#), which defines HTTP 1.1

# Why is HTTP important?

HTTP is the underlying communications protocol for the Web; it defines how Web content (a Web page) is delivered to browsers and other Web UAs (user agents).

## **Why is HTTP important?** **(continued)**

All browsers and Web UAs support HTTP — that is, they are HTTP clients.

Without HTTP, we would have no standard way to request and send content over the Web.

# HTML and XHTML

The HTML and XHTML specifications define a standard language that authors and content providers can use to mark up and publish content on the Web (primarily for display in browsers).

# **Why are HTML and XHTML important?**

All browsers support HTML and XHTML. Without HTML and XHTML, we would have no standard way to publish content on the Web — no way to mark up a Web page for processing across different browsers and other Web UAs.

# CSS

The CSS (Cascading Stylesheets) specification defines a standard language that authors and content providers can use to control the presentational style of Web content (a Web page) — separately from marking up that content.

# Why is CSS important?

All major browsers support CSS to some degree. Without CSS, authors and content providers would have no standard way to control presentational styling of Web content.

# The W3C DOM

The DOM (Document Object Model) specification describes a standard object model that browsers and other Web UAs can use to represent a Web page.

## **The W3C DOM (continued)**

The DOM allows the content of a Web page to be accessed and changed programmatically — for example, through client-side scripting, using a language such as ECMAScript/JavaScript.

# **Why is the W3C DOM important?**

All major browsers support the DOM to some degree. Without the DOM, browsers would have no standard way to represent a Web page.

## **Why is the W3C DOM important? (continued)**

Without the W3C DOM, JavaScript would not be very useful at all. But because of W3C DOM support in browsers, Web developers can create interoperable JavaScript code that works across all major browsers.

## **Why is the W3C DOM important? (continued)**

The W3C DOM is the key enabling technology behind all Web applications — all Web pages that use DHTML (dynamic HTML), and all that use Ajax.

## **Why is the W3C DOM important? (continued)**

Without the W3C DOM, there would be no standard way to make Ajax applications that work across different browsers — there would be no Web 2.0, no RIA, no mash-ups.

## What is important in general about these standards?

Another other common characteristic of the HTTP, HTML/XHTML, CSS, and DOM standards — a characteristic that been an extremely important factor in their success — is that they are truly **open** standards.

# **What is is a true open standard?**

A true open standard is not controlled by any single vendor. It is a standard that anyone can implement support for in a product, without paying royalties to anyone, and without being required to sign a license or even ask anyone for permission to implement it.

# Why are open standards important?

Open standards are important is that they “level the playing field” for everybody — they **encourage innovation** from the widest possible range of companies and organizations.

## Why are open standards important? (continued)

The other effects we have seen from open standards is that they **create opportunities for new products and services and entire new markets**

## Why are open standards important? (continued)

An important end result of open standards is that they create **substantial new revenue** for companies and organizations that build products and services based on them.

# Open standards generate billions in revenue

The W3C open standards for HTTP, HTML, CSS, and the DOM have been fundamental to the success of many companies, to the tune of **billions of dollars**. The next two slides list just a few.

# **Companies that have seen great financial benefits from HTTP, HTML, CSS, and DOM standards**

- Apple
- Cisco
- Intel
- Microsoft

## Note

All of the companies listed in the previous slide are W3C members

# **Companies that have seen great financial benefits from HTTP, HTML, CSS, and DOM standards (continued)**

- Daum
- Naver
- Google
- Yahoo!

## Note

Two of the four companies listed in the previous slide are W3C members...

## **Creating new markets and new revenue**

None of the companies listed in the previous slide would exist today if it were not for availability of open standards for Web technologies. Open standards created the market for their products and services..

# **Open standards and your company or organization**

By building products and services based on open standards, you have the potential to achieve success in the same way that Google has.

## **Q: Why participate in standards development?**

So what potential business value can your company or organization recognize by participating in standards development at the W3C or other standards bodies?

## **A: Drive technologies that align with your business goals**

By participating in standards development, you have the opportunity to drive technologies that bring value to your business.

## **A: Drive technologies that align with your business goals (continued)**

Instead of being a passive consumer of standards developed by others, you become an active force in defining future technologies, and ensuring they align well with your business goals.

## **Example: Company X**

As an example of a business that is making great use of opportunities at the W3C, consider Company X. Company X has 51 participants in 41 different groups at the W3C

# W3C and Company X

Some W3C technologies that Company X has been involved in developing:

- XML
- XForms
- Web Services Policy
- XSLT and XML Query
- HTML and XHTML

**Q: Why does Company X invest some much employee time in standards development?**

An natural question to consider is: What value does Company X get from the substantial amount of employee resources it invests in participating in W3C standards development.

## **A: Enabling technologies for building products and services**

If you examine Company X's product and service offerings, you will see that they have built very successful, revenue-generating products and services based on the enabling technologies defined in W3C standards.

# **Drive standards, drive markets**

The Company X example shows that taking a leadership position in development of useful standards-based technologies actually helps to create the markets for those technologies.

## **Example: Company X and XML technologies**

It could be argued that Company X's support in developing standards for XML technologies at the W3C has been a significant factor in increasing the market demand for those XML technologies.

# The Strategy Lesson, Part 1

The first part of the strategy lesson from the Company X example is this: Identify useful technologies that align with your business goals, then ask: Are those technologies in the process of being developed as open standards? Or could they be developed as new open standards?

## The Strategy Lesson, Part 2

The second part of the strategy lesson from the Company X example is this: If you've identified open standards that align with your business goals, then **get involved** in developing them — or better yet, **take a leadership position in developing them.**

# Urgency of investment

The time for your organization to invest resources in standards development is **now**; if you get involved now, you can most directly influence development of the standards.

# **The cost of not getting involved in standards development**

If you don't get involved at all, you potentially accrue larger costs later in migrating to standards developed by other companies — standards that quite possibly won't align well with your requirements.

## Industry sectors

Some industry sectors represented by member organizations at the W3C include: Consultants, Systems Integrators, Media/Entertainment companies, Content Providers, Universities/Research Labs, Manufacturing companies, News Media, Financial Services, Government Agencies, Hardware vendors, Software vendors, and providers of Telecommunications Services.

## Interest areas

Some industry interest areas represented W3C members: Accessibility, Aeronautics, Automotive, Certification, E-Commerce, Education, Financial, Graphics, Health Care, Home Intelligence, Mobile, Multimedia, Printed media, Privacy, Quality Assurance, Search, Semantic Web, Transportation, Travel, Video, Voice Applications, Security, and Web Services

# How to get involved at the W3C

For information about getting involved with standards at the W3C — as more 400 organizations have already — visit <http://www.w3.org/> and follow the “Join W3C” link. Or just go to:

<http://www.w3.org/Consortium/join>

<http://www.w3.org/>