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## **Contact Information**

The <u>W3C Communications Team</u> is your first point of contact for information on Web standards and the technologies under development at the W3C. We are available to answer your questions and connect you with W3C's <u>technical experts</u>.

We encourage you to send all press requests to <a href="w3t-pr@w3.org">w3t-pr@w3.org</a>. This will allow the Communications
Team to attend to your request in a timely manner. If you have questions prior to sending your requests, please contact the following representatives:



International press coverage of W3C Tenth Anniversary Celebration

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Also available in PDF: a <u>French press kit</u> ("Définir les standards du Web d'aujourd'hui et de demain", Feb. 2005) and a <u>Japanese press kit</u>.

## W3C Overview

The World Wide Web Consortium (W3C) is an international consortium where Member organizations, a full-time staff, and the public work together to develop Web standards. W3C's mission is:

To lead the World Wide Web to its full potential by developing protocols and guidelines that ensure long-term growth for the Web.

## W3C Develops Web Standards and Guidelines

W3C primarily pursues its mission through the creation of Web standards and guidelines. In its first ten years, W3C published more than eighty such W3C Recommendations . W3C also engages in education and outreach, develops software, and serves as an open forum for discussion about the Web. In order for the Web to reach its full potential, the most fundamental Web technologies must be



Tim Berners-Lee, W3C Director and inventor of the World Wide Web

compatible with one another and allow any hardware and software used to access the Web to work together. W3C refers to this goal as "Web interoperability." By publishing open (non-proprietary) standards for Web languages and protocols, W3C seeks to avoid market fragmentation and thus Web fragmentation.



<u>Tim Berners-Lee</u> and others created W3C as an industry consortium dedicated to building consensus around Web technologies. Mr. Berners-Lee, who invented the World Wide Web in 1989 while working at the European

Organization for Nuclear Research ( <u>CERN</u> ), has served as the W3C Director since W3C was founded, in 1994. In December 2004, W3C celebrated its <u>tenth anniversary</u> with a <u>symposium</u> in Boston about the history and future of the Web and W3C. More information about the <u>history of W3C and the Web</u> is available.

#### W3C Is an International Consortium

Organizations located all over the world and involved in many different fields join W3C to participate in a vendor-neutral forum for the creation of Web standards. W3C Members and a dedicated full-time staff of technical experts have earned W3C international recognition for its contributions to the Web. W3C Members ( sample testimonials ), staff, and invited experts work together to design technologies to ensure that the Web will continue to thrive in the future , accommodating the growing diversity of people, hardware, and software.

W3C's global initiatives also include nuturing <u>liaisons</u> with over 40 national, regional and international organizations around the globe. These contacts help W3C maintain a culture of global participation in the development of the World Wide Web.

W3C operations are supported by a combination of Member dues, research grants, and other sources of public and private funding. W3C operations are jointly administered by the MIT Computer Science and Artificial Intelligence Laboratory (CSAIL) in the USA, the European

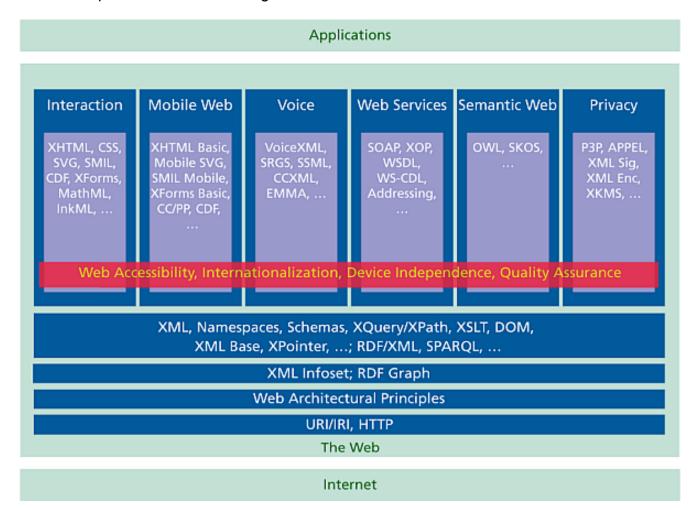
Research Consortium for Informatics and Mathematics (ERCIM) headquartered in France and Keio University in Japan. W3C also has World Offices in fourteen regions around the world. W3C Offices work with their regional Web communities to promote W3C technologies in local languages, broaden W3C's geographical base, and encourage international participation in W3C Activities. You can contact the Offices in these regions: Australia, Benelux, Finland, Germany and Austria, Greece, Hong Kong, Hungary, Israel, Italy, Korea, Morocco, Spain, Sweden and United Kingdom and Ireland.

This set of pages also available as a single page for printing.

## W3C Technology Stack

#### The Web is an application built on top of the Internet.

This illustration ( <u>larger version</u> , <u>description</u> ) shows one view of Web infrastructure, the focus of most work at W3C. The foundation of URIs, HTTP, XML, and RDF supports pursuits in five areas. Themes of accessibility, internationalization, device independence, and quality assurance pervade W3C technologies.



W3C is transforming the architecture of the initial Web (essentially HTML, URIs, and HTTP) into the architecture of tomorrow's Web.

W3C's technologies will help make the future Web a robust, scalable, and adaptive infrastructure for a world of information. To understand how W3C pursues this mission, it is useful to understand the driving design principles of the Web. For a detailed discussion of Web design principles, please see the W3C technical report <u>Architecture of the World Wide Web</u>.

### **Achievements**

Below you will find some of W3C's most important achievements. Obviously, this type of list is subjective and does not represent every aspect of W3C work. For a complete view of W3C work, please consult the <u>list of W3C Activities</u> and the <u>index of W3C's technical reports</u>.

October 1996

First W3C Recommendation published is Portable
Network Graphics (PNG) 1.0. In the mid-'90s, more
industrial and academic users were discovering the Web and its graphics
capabilities. W3C developed Portable Network Graphics (PNG) to provide a
cross-platform alternative to the graphics formats most prevalent at that time,
some of which had raised some patent licensing concerns.

December 1996 Separating content from structure, CSS Level 1 is published. Cascading Style Sheets (CSS) is a simple mechanism for adding style (e.g. fonts, colors, spacing) to Web documents. CSS Level 2 (1998) included further and more sophisticated features and nowadays, CSS Level 3 has several modules such as a speech module for rendering text as speech.

Web Accessibility Initiative Launched. W3C's Web Accessibility Initiative (WAI) guidelines for Web content, user agents, and authoring tools would become very popular among the Web community. WAI, in coordination with organizations around the world, pursues accessibility of the Web through four primary areas of work: technology, tools, education and outreach, and research and development.

December 1997 HTML 4.0 Adds Tables, Scripting, Style Sheets, Internationalization, and Accessibility Features to

Web Publishing. Whereas HTML 3.2 had been published to capture the then current state of support for HTML on the Web, HTML 4.0 added new features to enable authors to create significantly richer Web content. These features included the ability to specify style sheets, create tables, and make pages more dynamic through scripting (see also W3C's work on the Document Object Model, or DOM). HTML 4.0 also included important features to promote more internationalized content and content more accessible to some users with disabilities.

**Domain-specific Markup.** Soon to become the lingua franca of the Web, XML would serve as the basis for dozens of standards ranging from digital signatures (XML-Sig) and Web forms (XForms), to privacy technologies (P3P).

August 2000 Scalable Vector Graphics (SVG) 1.0 Enriches Web Graphics. A language to describe two-dimensional graphics and graphical applications in XML, SVG will serve as the foundation for new-generation mobile applications (SVG Tiny, SVG Mobile Profiles).

XML Schema Provides an Essential Piece for XML to Reach Its Full Potential. This important specification delivers on the true promise of XML by providing a standard way to create XML vocabularies that permit mixing and a way to build more versatile and powerful commercial applications.

W3C Launches Web Services Activity. Subsuming the XML Protocol Activity and extending its scope, Web services provide a standard means of interoperating between different software applications, running on a variety of platforms and/or frameworks.

May 2003 W3C Adopts Royalty-Free Patent Policy. The W3C Patent Policy governs the handling of patents in the process of producing Web standards, and explicitly encourages the development of open standards.

RDF and OWL Make a Strong Foundation for Semantic Web Applications. RDF and OWL are Semantic Web standards that provide a framework for asset management, enterprise integration and the sharing and reuse of data on the Web. Respectively, they deliver structured descriptions and Web-based ontologies.

March 2004 W3C Gives Voice to the Web with VoiceXML 2.0. Voice interaction can escape the physical limitations of keypads and displays as mobile devices become even smaller. The goal of VoiceXML 2.0 is to bring the advantages of Web-based development and content delivery to interactive voice response applications.

W3C Describes Principles of Web Architecture. W3C's Technical Architecture Group (TAG) publishes

"Architecture of the World Wide Web," a description of the principles that

make the Web we know work, and work well. This condensed assessment of fifteen years of observations about the Web authored by many of those who designed the core Web standards is a valuable foundation on which to design future Web standards.

## **Future Work**

W3C continues to expand the reach of the Web to:

- anyone (regardless of culture, abilities, etc.),
- **anything** (applications and data stores, and on devices ranging from power computers with high-definition displays to mobile devices to appliances),
- anywhere (from high to low bandwidth environments),
- any mode of interaction (touch, pen, mouse, voice, assistive technologies, computer to computer).

#### Richer User Experience

Many developers rely on the Web as a platform-independent application environment. Familiar Web applications include Webmail, reservation systems, online shopping or auction sites, games, and multimedia applications. Recent W3C Recommendations such as XForms will soon begin to influence the usability of such applications. New W3C work in areas such as compound documents targets further improvements in content diversity and overall usability. For more information on developing platform-independent Web applications, please refer to the work of the W3C Compounds Document Formats Activity.

# Browse With Eyes, Ears, Voice and Touch

W3C is developing standards that support multiple, simultaneous modes of Web interaction: through eyes, ears, voice, and touch. In addition to the familiar keyboard, mouse, stylus, and audio/visual output, new interaction modes are becoming more and more commonplace. Indeed, so common that people may not even realize that they are interacting with a Web application such as a reservation system that is telephone-enabled.

W3C is where the future of the Web is made. Our Members work together to design and standardize Web technologies that build on its universality, giving the power to communicate, exchange information, and to write effective, dynamic applications—for anyone, anywhere, anytime, using any device."

—Tim Berners-Lee, W3C Director and inventor of the World Wide Web

Call center applications are just the beginning. W3C is enabling diversity of interaction so that people can choose the solution that best suits their needs in any given environment. W3C is carrying out this work in the W3C Multimodal Interaction Activity, the Voice Browser Activity, and the Device Independence Activity. These new technologies will improve access to the Web through mobile devices such as telephones and handheld organizers, but also other systems such as automotive telematics, home entertainment systems, and other multimodal applications.

#### Web for Everyone

W3C's <u>Web Accessibility Initiative</u> (WAI) continues to promote implementation of existing accessibility guidelines in advanced authoring tools, together with improved evaluation tools. Increased implementation of accessibility guidelines for authoring tools, browsers, and media players, combined with personalized accessibility profiles, and use of metadata and proxy

services to support accessibility, will enable people with disabilities to more readily create and interact with Web content. This progress will enable more automated support for development and repair of accessible Web sites. In this way, accessible Web design will become "business as usual."

W3C's vision of the Web is one of a truly integrated environment that allows for the expression of cultural nuances and language differences across distributed systems and geographies. W3C's <a href="Internationalization Activity">Internationalization Activity</a> has started work on guidelines that explain to developers how to ensure that their XML formats support internationalization and efficient localization. Other internationalization work will focus on common locale identifiers and negotiation for the World Wide Web and Web services in particular.

#### Web on Everything

One of W3C's goals is to design technology that will work independent of a particular hardware platform. Increasingly, people are seeking access from a range of devices that extend beyond the familiar desktop computer, including mobile telephones, kiosks in airports, kitchen appliances, and automobiles. Access from these devices (whether by human or machine) should be as simple, easy and convenient as Web access from a home computer. W3C is designing technologies (including those cited in the previous section, but also Cascading Style Sheets (CSS), Scalable Vector Graphics (SVG), XForms, Synchronized Multimedia (SMIL), and more) that will lower obstacles to authoring for, and browsing with, devices having a broad range of input and output capabilities.

#### Advanced Data Searching and Sharing

As the Web grows into a even richer storehouse of human knowledge, we need ever more powerful tools to search and interpret the tremendous amount of available data; this applies to intranets as well as the global Web. Two models have emerged to help manage this data on a global scale: the <u>Semantic Web</u> and <u>Web services</u>.

The Semantic Web provides a common framework that allows data to be shared and reused across application, enterprise, and community boundaries. It is an extension of the current Web in which information is given well-defined meaning, better enabling computers and people to work in cooperation. The Semantic Web is data-centric.

Web services provide a standard means of interoperating between different software applications, running on a variety of platforms and/or frameworks. Web services are message-centric.

Both models are important to networked and distributed systems, so W3C is working to ensure their proper integration, both together and with the existing Web infrastructure. For instance, Web services benefit from the ability to share common vocabularies, unambiguous names, and a common data model, all of which are readily expressed with Semantic Web technologies.

#### **Trust and Confidence**

The Web has transformed the way we communicate with each other. In doing so, it has also

modified the nature of our social relationships. People now "meet on the Web" and carry out commercial and personal relationships, in some cases without ever meeting in person. W3C recognizes the importance of designing technologies that foster trust and confidence and thus enable increasingly complex interactions among parties around the globe.

What does it mean for a technology to foster trust? W3C's <u>Platform for Privacy Preferences</u> (<u>P3P</u>) was an important first step in building confidence by enabling people to become more aware about how they choose to share or not share information about themselves over the Web. Based on this experience with P3P, W3C is proceeding to tackle questions raised by service providers how to implement privacy practices associated with those services. Organizations want to keep their promises. W3C is therefore exploring how <u>privacy metadata</u> can be used to help manage user data in a trustworthy fashion on the server side.

Traditionally, one way of establishing trust is to show some trusted form of identification, such as a driving license or a passport. Analogous authentication protocols are not yet widely deployed on the Web, but there are many initiatives seeking to bring traditional authentication mechanisms to this new environment. Naturally, highly sensitive tasks such as online-banking are driving these developments, but so are some less "intensive" needs such as Wiki administration. The <a href="Semantic Web">Semantic Web</a> is helping to build trust by making our Web software "smarter." Semantic Web technologies enable software to find and analyze the relvant information on our behalf. The traditional public key infrastructure also has to be augmented to reflect the richness of different ways of life on the Web.

## Acclaim

In addition to the testimonials below (drawn from <u>W3C press release</u> <u>announcements</u>), we encourage you to consult the <u>list of Member</u> <u>testimonials</u> that appear on the <u>W3C home page</u>.

Nokia welcomes the advancement of Mobile SVG to W3C Recommendation. We believe that Mobile SVG will play a significant role in future mobile multimedia applications. Nokia has demonstrated its commitment to W3C open standards by taking the responsibility of the editorship for the new specification, and has strongly driven the adoption in 3GPP standards of the Mobile SVG profile for Multimedia Messaging Service (MMS) and Packet Switched Streaming (PSS). Nokia believes that the availability of a open and mobile-friendly standard for the creation of vector graphics content will play a central role in creating a dynamic and rich market for applications that fully exploit the capabilities of these exciting technologies."



XML Protocol Working Group at Mont St. Michel, France

—Janne Juhola, Senior Technology Manager, Multimedia - Nokia Mobile Phones, Nokia, Inc. , from <u>SVG 1.1/Mobile SVG press release</u> January 2003

AOL has always regarded consumer privacy as one of our most important values. In addition to supporting robust self-regulatory initiatives and industry best practices, we strongly support technologies like P3P that empower consumers to personalize their online experience and make informed choices about their privacy. We commend W3C for the work it has done on this important issue, and we look forward to continuing to work with W3C and other interested organizations on ways to enhance and implement the P3P standard and other similar technologies."

—Tatiana Gau, Senior Vice President, Integrity Assurance, America Online Inc., from P3P 1.0 press release April 2002

XML Schema is a significant milestone in the evolution and maturity of XML, and a key enabler of Web services and peer-to-peer computing. Interoperability in a world populated by millions of PCs, smart devices and Web services is only possible when based on rigorously defined data formats and protocols. The opportunities created by XML for businesses and consumers are greatly enhanced by this release of XML Schema. The adoption of XML and XML Schema throughout Microsoft's products and services is at the heart of our .NET vision for Web services."

—Bill Gates, Chairman and Chief Software Architect, Microsoft Corporation, from XML Schema press release May 2001

Panasonic is very pleased that the "Modularization of XHTML" specification has been approved as a W3C Recommendation. "Modularization of XHTML" provides us a formal/systematic means for subsetting and extending XHTML. "Modularization" is a very important technique for applying Web technologies to digital home appliances, such as digital TV sets or mobile phones because sometimes there are resource limitations or device specific features on such devices; and "Modularization" allows us to have an specification which best fits to each platform in a systematic way. As one of the leading companies for digital home appliances, Panasonic highly expects that "Modularization of XHTML" will become the foundation for a wide variety of Web appliances."

—Yasunori Tanaka, General Manager, Core Software Development Center, Matsushita Electric Industrial Co., Ltd., from Modularization of XHTML press release April 2001

Congratulations to the World Wide Web Consortium and its Members for helping to make the Web more accessible for people with disabilities. The Web is having a dramatic impact on the way we work, learn, live and communicate with each other, and it is essential that this new medium be accessible to everyone. People with disabilities should be full participants in the Information Society. I am proud of the role that the White House has played in serving as a catalyst for the Web Accessibility Initiative. The U.S. Government intends to work closely with the World Wide

Web Consortium to ensure that government information and services are accessible, and I want to challenge all Web developers to design Web sites that are accessible to everyone."

—Al Gore, Vice President, USA, from Web Content Accessibility Guidelines press release May 1999

Ian Jacobs, Head of W3C Communications .

Please send feedback to <a href="mailto:site-comments@w3.org">site-comments@w3.org</a> (<a href="mailto:public archive">public archive</a> ).



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