

March 24, 2006

Interview with Roberto Scano (Part 1)

Summary: Interview with Roberto Scano (Part 1)

On March 17th, I talked with Roberto Scano, an Italian accessibility expert, about several accessibility-related issues. Due to the length of the conversation, the interview is in two parts.

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Fruibile

Pam Berman:

How is work on [Fruibile going](#)?

Roberto Scano:

We are starting to promote the tools but we are still in the development for the new functionality because for now we have to optimize it for the Italian law, which is a very strict law because it follows the [Web Content Accessibility Guidelines \(WCAG\) 1.0](#) requirements. There are some requirements for example all web sites and web applications must conform to [HTML](#) or [XHTML 1.0](#) with the DTD Strict. So the web site must conform to this DTD.

Note:

The Italian law is a very, very strong [strict] law. Roberto participated in the working group that produced the guidelines. In the working group there was also the W3C Italy representative, Mr. Oreste Signore.

Roberto

There is an expectation that the developer should conform to web standards. That's because we have a lot of public web sites that have a lot of problems with accessibility. Also, if you have read the last European Community document about the accessibility level in Europe, only 3% of the public web sites conform to the WCAG minimum level. So what Italy has started to do is to teach the web developer that the most important thing is to develop for the standards so it is easier to create for assistive technologies because the big problem is now that the browser engines stops because of the page.

For example, in a standards-based browser like [Firefox](#), if you serve a web page in the MIME type "application/ xhtml+xml", a page that contains errors stops loading. HTML editors that permits tag soup are also a problem.

Also in [Opera](#), the page served as "application/xhtml+xml" and there are errors on the page, the page stops loading. So it is very important that everyone validate the page. Check the page. Check for errors. The problem with the new generation of web developers have grown accustomed to using WYSIWYG HTML editors. People need to see the markup created by the "What You See Is What You Get" editors. They need to

understand the difference between a data table and a layout table enough to understand the need to use CSS for layout rather than using nested tables because there is not only a problem for the people who browse the web with normal technology but also a problem for those using assistive technology. It is the larger group that needs to have comfort about a web site and an accessible web site.

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Visual HTML Editors

Pam:

What's happening in the United States is a lot of people that really don't understand web development are getting into web development because of the use of "WYSIWYG" HTML editors. They are creating all kinds of stuff that is not accessible because they just don't know any better.

Roberto:

Yes, the other problem with the "What You See Is What You Get" is that with different browser engines, "what you see is what you would like to get". For example: using a layout with CSS students must search the Web to find techniques for accessibility in different browsers such as IE hacks. The hacks that have been used for Internet Explorer 6 no longer work in Internet Explorer 7 and now there are a lot of problems with the existing layout.

Something that I said in a meeting of the W3C advisory committee is trying to get browsers like IE and Opera to implement the standards and not interpret the standards because one of the big problems for the standards promotion is related to the browser problem. Browser engines run in different modes. But if there is a specification, all the browsers should follow the specification and not create a mode to present content like in the box model specification of Internet Explorer.

Pam:

Quirks mode versus Standards mode.

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ISO Accessibility-Related Norms

Roberto:

This is also related to the [International Standards Organization](#) (ISO) requirements because ISO is coming up with two different documents; one for the Web and one for the software because what we need to remember is that accessibility now is not only for the Web content. We also need to give to the people the possibility to work using the Web and the new technologies so there are requirements for the accessibility for the software that is the former ISO- 9241-171: Ergonomics of human-system interaction - Guidance on software. This is like a set of guidelines like [Section 508](#) but gives some information about how to develop accessible software and an accessible operating system. It is very interesting because it is also related to some vendor guidelines like the [IBM software guidelines](#) also something like the [Microsoft accessibility guidelines](#). We need to remember, for example, that the most accessible software, operating system, is Microsoft because Microsoft has invested in this sector since the last century.

From DOS and also the first version of Windows, there was the screen reader. This document gives some information, some requirements for all the producers of software and operating systems and also for a production environment like Java to give some information for the assistive technologies. So, for example, if user navigates with a

screen reader, the software should give information about the object; give a textual information, let the user customize the user interface, make the character set larger, check the contrast ... all of the requirements that are requested for the Web are similar also for the software.

The other ISO 9241- 151: Ergonomics of human-system interaction - Guidance on interface. This is also important because a lot of software now is moving to the Web. There are a lot more Web-based applications. One example is the CMS or content management system. This allows a company to work using a normal Web browser. This is a lot more efficient and a lot less cost for companies as a distribution of applications. So Web applications need some requirements but a little different with respect to the Web Content Accessibility Guidelines because, for example, the WCAG guidelines require that a data page cannot validate for a page using JavaScript or an application using JavaScript. The Web application needs to have supportive scripting otherwise it cannot work well. So what is required for people that develop Web applications is to guarantee that every Web interface is usable and accessible to all people that also use accessible technology. For example, if you have something like [AJAX](#), object, Java and script that makes some actions and also that moves the user to other areas of the interface, all these action should be usable independent of input. So if it clicks it should be usable using the keyboard.

The problem is, for example, with the ISO, that I cannot exposit contents a lot because they are reserved documents because they are inside of the specification.

Pam:

So you are working on these documents?

Roberto:

Yes, for example, we have worked a lot in Venice during a meeting hosted in February.

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ATAG 2.0

Roberto:

Yes there is another important thing, the new ATAG is not only for the tools like those for developing client-side like Dreamweaver, Front Page, etc. but also for the Web application that generates content like the CMS. There are some requirements that are set for the client application and some requirements are set for the Web user-interface of the Web application. In a previous draft of the [ATAG 2.0](#), were there was a reference some of the ISO documents (ISO TS 16071) but now [the W3C](#) decided to define its requirements that are neither of the two ISO documents but that are directly inside the W3C W3C docs. There are directly some requirements that are aspired to the ISO future standard.

In the draft of the ATAG 2.0, there was a reference to the ISO document but this reference was removed because the deadline for the guidelines comes before the deadlines for the ISO documents. This was done because some groups said it was not possible to link directly to a document that is not yet a standard. The ISO hope that these documents will become standards by the end of this year and ATAG and the WCAG wants to have a recommendation for June or July of this year.

Pam:

So there are some things in ISO that should be in ATAG but are not because the ISO documents are not standards yet.

Roberto:

Within W3C, the working group develops the document; in every 3 months, for example, they make a public draft, receive comments from the people, discuss the comments and create the next draft. The last draft goes to the advisory committee to get voted on and to become a recommendation. In ISO is different because ISO is a normative consortium; there are experts within the working group that develop the documents. Then the documents go to the vote to the national board of ISO and then when there is a positive vote of the national boards the documents become standard.

Pam:

Is that a problem?

Roberto:

The problem is that the ISO standard for ISO definition cannot be reproduced more than a little percentage of the document because the difference between the W3C recommendation and the ISO standard is that W3C recommendations are free and include feedback from everyone. The ISO must be purchased. So the W3C cannot refer to standards that must be purchased for the applicant. In the last meeting in Venice, for ISO, a lot of the interesting points of the W3C specification are being integrated inside the ISO document so they are interested in the work of the W3C. If you check, for example, all the recommendations of W3C like HTML, there are references to some ISO documents that are publicly available. These ISO documents are not publicly available.

Pam:

Yes, I noticed you have to buy it.

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Accessible Web Documents**Roberto:**

There is the English PAS that [Gez](#) sent to me; [PAS 78](#). It is a document developed by the BSI entity. It's not legislation. It's more of a guideline. The BSI is one of the developers of the guidelines.

I think that this document is a result of the [W3C Education and Outreach](#) because if you check the scope and contents of the documents, there are a lot of referrals to W3C guidelines and specification.

It would be nice to check if the PDF document is accessible. It is interesting because if you look at their documentation, the document is available in large print, etc. so I take it their PDF should be accessible.

ISO does not create accessible specification. All the ISO documents are generated in Geneva with a tool that generates documents that are not tagged. But it is strange that an organization that develops standards for accessibility do not use their own accessibility standards.

Pam:

In our field, we see organizations that create accessible training and do usability testing but then place that material within a learning management system that is neither accessible nor usable for some of the learners.

Roberto:

Sometimes I discuss with some friends of mine in the open source area. I tell them also there are some problems with accessibility. I suggest to people that participate in the open source projects like opensource.net to develop following the accessible guidelines. There is a lot of open source software like an open source CMS, like PHPwebsite, Mambo, OpenCMS, etc. A lot of these are not accessible because they don't generate content that is accessible. A lot of these tools create a lot of tag soup so there are a lot of problems for the future of the Web if those kinds of applications are not optimized for accessibility and if they do not follow the Web standards. This is the same problem I had about 5 or more years ago with the first version of Front Page.

People took this content using the visual design to the CMS but the problem is still the same. Many tools do not create good code and accessible content. There are some tools like [XStandard](#) that allow you to create good code but one of the big problems is the content manager must be educated to publish content. One example that I use in training is, think about how many people that use Microsoft Word that know how to structure a document; how to use the "title", how to put alternative text format, etc. This is a problem because then the PDF document is not accessible. If you create, for example, a well-structured Word document, with a click, you create an accessible PDF.

Pam:

So if you use the Heading 1, Heading 2, and other styles, it works.

Roberto:

Yes, the list, the well-formed table, etc. But people don't use the styles. The problem is the same for the Web. The people don't know how to edit a document.

Another technique I use in training is to get them to create a web page and then I remove the CSS. And I say, "Okay, tell me how you would have structured this content. Where is the CSS class that you have used to make the font larger? I don't see it." For example, you put some link. Explain how to tell people who can't see the little "New Window" graphic that it will open up in a new window. Explain how to access the area of an image map if you do not add any text. I think the best training is to make the content editor or the web designer stay at the same level as disabled people. Remove all the possible ways to navigate; remove the color, remove the CSS, remove the use of the mouse, and make them work only with the keyboard.

Pam:

Yes, and a lot of people have no idea how to navigate in that way.

Roberto:

When I did this, they finally understand the problem and can then think for themselves when they create the next page.

Pam:

Yes, and now with [Fire Vox](#), people can go and listen to what web pages sound like for people using screen readers. If there is no alt attribute on a graphic, the screen reader reads the entire path to the graphic. It can be quite tedious and painful to listen to and it takes forever to get through the navigation to the content.

Roberto:

Yes, we also use the [Web Accessibility Toolbar developed by AIS](#) so I can show to people the problem with the link opening a new web page. They may include the little graphic to show people the link opens in a new window. I say, "Let's tab to that link. Tell me, where

does it go? Yes, you can see it opens in a new window but if people can't see the graphic, how do they know this."

Pam:

Yes, a lot of people just don't know. I didn't know about two years ago until I talked to Gez and started learning. It's such a wide-spread problem.

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Interview: Second Part

In the [second part of the interview](#), Roberto talks about [accessibility validators](#) and answers the question, "[If your web page automatically validates is it really accessible?](#)"

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Roberto Scano: Bio

Roberto Scano is the AC Rep of IWA/HWG inside W3C and is an expert of user interfaces accessibility.

In 1999 he starts the first chapter in Italy of IWA (International Webmasters Association): the Venice Chapter. In 2000 he found IWA ITALY, the Italian chapter of IWA IWA, and become president of it.

On 2001, when IWA merged with HWG (The HTML Writers Guild), he starts to follow also web accessibility: 11th Sept. 2001 he become IWA/HWG AC Representative inside the W3C (World Wide Web Consortium) and since this date he coordinate activities of IWA/HWG Member inside W3C Working Groups. In the same year he joined in the W3C WCAG Working Group (first Italian inside the working group).

On 2002 he developed a law project ("Campa-Palmieri Act") that was the first law project in Italy about web accessibility.

On 2003 he participated to the development of the accessibility guidelines for ABI (Italian Bank Association) for the home banking accessibility. He joined in the W3C ATAG Working Group (first Italian inside the working group), and inside OSI (Internet Web Site Observatory) of UIC (Italian Blind Union) as web accessibility expert. Always in 2003 he join also in The European Design for All e-Accessibility Network (EDEAN) and he has organized the first Face to Face Meeting of WCAG Working Group in Italy.

He was nominated EMEA (Europe, Middle-East, Africa) coordinator for IWA/HWG and joined inside CNIPA (Informatics National Center for the Public Administration) working groups that has developed the technical documents for the Italian Law about accessibility: he worked inside working groups that develops web site accessibility guidelines, software and hardware accessibility guidelines.

On 2004 he joined inside UNI (Italian National Standards Organization) and inside Working Group 2 (Video terminals) of the Ergonomic commission. He is a member of the technical secretary of the Interministerial Commission for the ICT for people of disabilities of the Italian government. He participate also to ISO (International Standards Organization) activities as Expert of ISO/TC 159/SC 4/WG 5 'Software ergonomics and human-computer dialogues' Working Group that develops standards for the accessibility of computer, software and web interfaces. Always in 2004 he develop the first book in the world in a new format: the "Tetralibro" (4-in-1: paper version that contains also CD-ROM with three accessible version: XHTML, Accessible PDF and version for PDA with Microsoft Reader). This book is a bible about web accessibility: "Accessibilità: dalla teoria alla realtà (Accessibility: from theory to reality) - ISBN: 88-7633-000-3. He develops also a CMS, <fruibile /> - L'elemento che mancava(tm) ("the missed element"), the first CMS developed in ASP (Active Server Pages) that conforms to Italian accessibility law and also to the requirements of EU (accessibility of public pages, content generated and

also of back office).

On 2005 he joined in the board of EuroAccessibility Consortium and wrote a book about the Italian law (Law 4/2004).

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