

Web Accessibility Education: an European Challenge

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Abstract

Web revolutionary strength has greatly influenced world society and economy, creating new ways of drawing on information and also new ways of working, but has not been able to guarantee universal access to its contents.

Many new professions have come to life, but none knows exactly how many they are; today's Web professionals have too few references about what they should really know to survive on the market, today's enterprises have too few references about skills their employees and consultants should have, today's training companies have too few references about educational paths concerning Web accessibility and Web quality.

Most part of Web developers simply ignore that a Web site should be accessible for all Web users, that "tag soup" is not the only way and that applying Web standards is not as difficult as too many people continue to say. But Web accessibility is still seen as a facultative subject, and accessibility issues are not correctly handled in most educational paths.

Nonetheless, proper education and widely shared educational paths are always the winning keys, and that's why IWA/HWG is working hard to create trustworthy benchmarks for Web professionals, enterprises and training companies; the most important of those educational plans - referred to Web accessibility - will be presented in this speech.

1. Introduction

Too many times, surfing the Web, we can find web sites where accessibility and quality issues are simply ignored, often ignored because developers simply don't know anything about it.

If we read the United Nations Global Audit of Web Accessibility [1], released on November 2006, we will easily understand that today's Web is simply inaccessible! On 100 important websites from 20 countries all over the world, just three achieved Single-A accessibility status under WCAG 1.0, and that's – using UN report's words – a stark result. We

do believe that education lack on the Web has had a great impact on this situation.

Let's ask ourselves for a moment... how many "web professionals" completely rely on visual-only developing tools? How many of them use to get their hands on web pages' code? How many of them know how should a web page be structured?

Facing Web sites accessibility and technological barriers' demolition, surely need some kind of study in depth, as developing an accessible web site is not as simple as 123; at the same time, it is not so simple to convince someone that accessibility is not an optional choice, but is one of the necessary steps that can lead to Web sites' quality.

That's why accessibility Education and Outreach has a primary importance and can be considered as a strategic factor for being successful on the Web; laws and recommendations are obviously a first, good step, but they will never be able to work if we do not explain to young people what laws are talking about, and if their teacher lack in awareness about accessibility.

But the challenge is also to educate the teachers in order to allow them to "transmit" to their students not only technical skills, but also (maybe this is the most important element) ethical and moral values on which today's and tomorrow's web professional can found their activities.

2. Web Accessibility Education's Peculiarity

What's wrong in nowadays Web education?

If we agree that Web cannot be inaccessible, it's reasonable to consider Web accessibility as a mandatory subject in every educational path. But reality is different from abstract considerations! Web accessibility is mostly seen as a specialization, and Web basics classes only occasionally include Web accessibility.

I've tried to make a very simple and empirical investigation on Google, searching for Web basics classes and Webmasters structured courses. I've

examined 30 courses (the first 30 significant courses anyone can find on Google by searching “webmaster class” or “webmaster course”), and here’re some interesting results:

Only 6 of those courses deal with Web standards (as W3C recommendations)

Only 8 speak also about usability and/or Web marketing (include users somehow)

Only 4 on 30 discuss Web accessibility issues

None of them starts speaking about usability and accessibility; users and their demands are always presented as a deepening, not as the starting point!

Of course that’s only a rough investigation, but it succeeds in putting in evidence the two biggest gaps between Web education as it is now and Web accessibility education as it should be:

Web accessibility not part and parcel of Web basics

Users’ lead role

Moreover, too many education plans are only based on commercial products and tools rather than on technologies. Too much on visual only authoring tools, too little on semantic structure of Web content.

So any educational project about Web accessibility needs to base itself on:

Users as a starting point

Web standards and recommendations presented as the only effective answer to all Web users’ needs

Technologies, languages and good practices which represent the real Web foundation

3. The Webmaster’s fairytale

What’s the meaning – nowadays – of the word “Webmaster”? Surely it may have many meanings: once it gave the possibility to express the concept “I can build a Web site” but at the present time it is an unspecific term.

In the same way, the concept itself of “web site” has gone changing as technology has changed. Today, users and developers have different needs and tools, so also the web sites’ purposes and targets have become different.

So, what does it mean “Webmaster”? What does it mean “I can build Web sites”? And what must a developer know to be allowed to say “I am a Webmaster”? Does it still make sense to define someone’s professionalism in this manner, and use such a term to face the market? Maybe the answer is no, maybe this word that once meant almost everything, nowadays means almost nothing; the same investigation about web courses I talked about before is very useful to understand this issue as well.

On 30 classes, 21 are “complete” courses for Webmaster, and I discovered that:

4 have a similar structure, but very different timing (40 to 200 hours); that means that 17 on 21 have very different curricula

9 do not include CSS

1 speaks only about Web Marketing (but it’s titled “how to be a professional Webmaster”, no XHTML!!!)

13 include server side developing

3 speak about W3C recommendations and only 2 about web accessibility.

The truth is that none really knows who a webmaster is, and that – on the Web as in many other areas – being unspecific and pretending to be able to do everything leads to inaccurate approaches; today the “i-can-do-all” Webmaster doesn’t exist any more and Web professional should be able to specialize in one specific area of their domain, deepening their know-how and their skills in that area, not disregarding – of course - all other areas.

A single Web professional cannot develop by himself a complex Web application; nowadays we must face with working groups, and each of us cannot avoid to confront himself with other Web professionals, sharing experiences in order to hit the business mark.

The Web has been able to break the rules in every human activity, and also in the job market Web has forced the birth of new professions.

The concrete risk is that everyone decide to face this new market off the cuff, inventing his own profession in his own peculiar and odd way, experiencing different and personal ways strictly linked to his own predilections, his own habits; as a result, any Web professional would reach completely uncertain and not comparable skills. We cannot wish the return to that kind of “do-it-yourself” that distinguished the very first Web; instead, we should work to encourage a systematic approach, able to guarantee the diffusion of a basic, minimum set of skills that result homogeneous and comparable.

And if we agree to the presence of new rules and professions, we should also agree to the need of new and common educational paths, that should lead Web professionals to the acquisition of that common knowledge that new Web professions require, also about web accessibility.

Web has always been a global phenomenon, Web education about Web basics cannot be faced without an organic and structured vision. The whole Web, and Web education, cannot do without a small set of milestones, the Web Standards, and needs global visions and contributions, and W3C recommendations do represent the main contribution,

also in Education area with the WAI Education and Outreach working group.

I do believe that nowadays the Web lacks in education culture, that should be seen not as an optional plus but as an imperative requirement on which public and private enterprises should invest with strong conviction and awareness, being sure to seed in the best way and to obtain the birth of a new generation of Web professionals able to guarantee accessibility and quality to the whole Web.

4. IWA/HWG Challenge

In this global and far-seeing approach, IWA/HWG [2], a non-profit association, that is present in 106 countries all over the world, has always rested its mission upon providing the right motivations and tools, in order to improve its member's effectiveness, professionalism and image, and to boost their professional opportunities. Our educational activities, not only relating to Web accessibility, are based on:

- Education of teachers
- One-day technical seminars and complete accessibility classes
- Accessibility education's guidelines based on users needs and Web standards

A first global educational approach is represented by the IWA WAS (Web Accessibility Specialist) [3] project, which defines 5 profiles (and 5 training paths) strictly connected with Web accessibility:

- WAS Web Operator
- WAS Web Designer
- WAS Web Content Manager
- WAS Application Developer
- WAS Certified Trainer

The first, Web operator, grants the acquisition of basic skills which are considered as required by all the other advanced profiles. So, for example, Web Content Manager must possess Web Operator's skills as a starting point, and so do all other profiles, Web Designer and Application Developer.

In order to make easier the birth of new professionals, the instructor takes a central position; we know that a training plan, even the best one, risks

to collapse and to fail if not well supported by an instructor (or a team of instructors) well versed in all the technological aspects that are the subject of the course, but also in terms of managing a classroom, of knowing how to get on with any student, of being able to efficiently guarantee the transmission of technical skills but also of ethical values which, together, make Web accessibility. That's why we built a training path for teachers.

But that was only the beginning: our aim was (and still is) to encourage the evolution of an educational process for Web professionals that can be at the same time actual and innovative, so IWA Italy [4], (the Italian chapter of IWA/HWG), decided to take part to two important European projects:

1. CEN/ISSS Workshop on ICT-Skills (WS-ICT-SKILLS) [5], an European working group whose aim is to create, organize and develop ICT skills which are going to be necessary, all over the Europe, in a long term view.
2. IWA Italy Web Skills Profiles WG [6]: on February 2006 the European Committee for Standardization (CEN), which contributes in achieving European Union goals with its technical standards, has released the European ICT Skills Meta-Framework [7], including only IWA/HWG as an organization able to provide educational certification about Web professions. That's why IWA/HWG entrusted its Italian section, IWA Italy, to define Web skills profiles and educational paths. So we gave life to the IWA Italy Web Skills Profiles Working Group - that includes about 40 Web professionals, coming from public and private enterprises, associations and even from Italian Government – and its mission is to develop a structured document which will outline Web professionals skills. In our speech, we will show the steps and the proceedings of IWA Italy Web Skills Profiles Working Group, which in the second Quarter of 2007 should have finished a lot of its job.

So, early future Web – maybe for the very first time – will count on robust E-Skills and Web Skills frameworks, on a global educational system, on common technical knowledge and ethical values, and the early future Web professional will have some more developing and cultural weapons to make a better and more accessible Web.

[1] <http://www.nomensa.com/resources/research/united-nations-global-audit-of-accessibility.html>

[2] <http://www.iwanet.org>

[3] <http://www.iwanet.org/argomento.asp?cat=38>

[4] <http://www.iwa.it>

[5] <http://www.cen.eu/cenorm/businessdomains/businessdomains/iss/activity/wsict-skills.asp>

[6] <http://www.skillprofiles.eu>

[7] <ftp://ftp.cenorm.be/PUBLIC/CWAs/e-Europe/ICTSkill/CWA15515-00-2006-Feb.pdf>