

Website development action plan

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Introduction

Approximately a year ago the author was acquainted with Cate Mackenzie. Cate Mackenzie is a speaker, life coach, workshop leader and artist. Cate Mackenzie gathered that the author is a student of computer science and proposed a project. This project involved updating Cate's web site, which was inadequate and not accessible. One of many Cate's activities is a community work which gives additional impetus to the creation of highly accessible site but her main targeted audience is a corporate audience, which books her more expensive workshop conducted internationally.

Author's role and placement duties

The main point of interest for the author was to gain valuable real life experience in IT, having a BSc in Computer Science multimedia pathway is all very well but if one's CV has no IT practical experience chances of career development in selected area are not promising. Another added bonus was realised later much further in the project: it is the additional advantage of *confidence* gaining, the knowledge of one's own capability to deliver a professional product. The other motivations were more of secondary importance: considering Cate's work very interesting and gaining insights from her field of expertise.

The project started with the essence of an idea for wholesale updated application. The client was deeply involved at every step of the project, in order to determine most effective ways of implementation. Many paper based prototypes and sketches were developed and ideas discussed with client, giving the client guidance in areas which were the area of expertise of the implementer, while keeping the client fully in the "driver's seat", giving the client responsibility of consecutive decision.

For the scope of project there was a up-front specification for the final project of things required to be implemented. In this project Rapid System Development was utilized. We aimed at implementing the project specification in a definite time schedule and deliver first class results. The set of skills was threefold:

- scripting skills: XHTML, CSS, JavaScript and PHP.

- design: usability, accessibility and visually attractive design. User-centred approach.
- interpersonal set of skills: constant meetings and communication over the email and cell phone with the client.

RAD techniques were brought to the project in order to keep the project on the right track. The success of the project is determined (Howard 2002)¹ by the ability to turn an initial system concept into a working system that adds value to a business operation in a short period of time. We already have very positive feedback from those who preview the site and from newsletters we published. The implementation of RAD was more practical, as formalized methods can lead to lethargy in development process. Thus clients and users needs were kept as a clear beacon light illuminating our path. With analytical engineering the goal was to eliminate all steps in the product development not adding to system design requirements. User requirements were itinerary dwelled upon and the implementation was aiming at a simple system, easy to maintain.

The practical duties of this project included writing mark up language (XHTML and CSS) , shooting and editing promotional video, working with sound: Cate provided her radio shows recordings, which needed editing before they could be used for broadcasting on her site. Editing images inside Photoshop, creating graphics for the site. Editing the text.

Critical evaluation

The correct way in which one develops web is to do all background work first and develops product on the stage two. The thinking and planning work before the creative one. Before the placement started the author produced some test designs for Cate but they were ineffective as the communication with the client was poor. Fortunately since placement started Cate took very deep interest and desire to have a very good product developed. The author's great discovery was how the client was far more demanding than what he expected.

When developing the site a lot of detail was given to the usability of the site. Cate's statement was placed on the top of all pages, which was one of the ways in which we keep users informed where they arrived. Similarly home button is on every page. One may object that having "home button" on home page is redundant because on the main navigation bar we have buttons with sub link and if those would be removed in their particular section the drop down menu would need some extra graphical buttons for subsections which would be slightly confusing for the user, thus consequently all main buttons are displayed in the main menu always for consistency. For navigation it is a common practise to have a logo or name of the page placed at the top of the page but as we have a motto of Cate this feature is not implemented and this will be reviewed in the future. Same is the case with a local Google search box. This feature can be easily added in the future once we have some feedback from users. Third attribute in consideration is breadcrumbs trail. This is important as many times users do not arrive to home page but inside an alternate page.

According to survey of Jacob Nielsen² users would spend on average 1 minute and 49 second before they abandon the Web site and move on. Interior

pages accounted for 60 percent of the initial page visit. Most adults can read 200 to 300 words per minute but that doesn't mean that they would read a 100 words message on a home page, 10 to 20 words is more realistic. Based on the above study we initially have approximately only half a minute in which we require to converse:

- where the user arrived: in our case site of Cate Mackenzie, life coach and workshop leader
- what is offered to visitors: they can see a list of workshops, read about life coaching, listen to radio shows and other activities.
- who is Cate: this is communicated in a short paragraph, as users do not read much (at least according to study of Nielsen) and latest workshops information
- How we aid user's navigation to most relevant pages: for example in text content meaningful links (instead of click here we have descriptive links) from home page to Latest workshop page. More text is located on internal pages. Users tend to read more on interior pages (in Nielsen's observation as many as 100 words).

Search engine optimization is a natural part of this project. Users rarely come to the Web site directly, mostly they come through search engine result page. Catemackenzie.com is currently number one in Google and Yahoo Search if we type the name Cate Mackenzie in which is very positive. First 3 sites on the result page get most visitors. For the new site we have Google webmaster tools account, from where we shall be see all details of when users visited and the number of visitors. Some meta tags were added to the script like:

```
<meta name="description" content="Welcome to CateMackenzie.com, the official website of artist, life coach and workshop leader and artist Cate Mackenzie. Cate creates a unique and extraordinary group experience. You can now subscribe to Cate's newsletters and contact her by email: info@catemackenzie.com. Sign up for famous Open Your Heart workshop.
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" />
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and also site map will be submitted to Google once the new site goes life. We also have a keyword meta tag:

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<meta name="keywords" content="Life Coach, Workshop Leader, Artist, Love, Heart, Romance, Self Development, Making Wishes, Goal Setting, Relationships, Peace " />
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Keywords are important as many times users do not look for specific sites but rather for specific keywords and answers. That is another reason why we have a clear headlines on each page. To get additional value from search engine "see also" links are currently considered to be placed or embedded at the end of selected articles. The text provided by Cate provides analysis and insights from her unique perspective which will surely generates many visitors.

Great achievement was that we managed our first ever HTML email which was send to all Cate's 1000 subscribers offering a very personal experience to the users.

Another important (apart from usability) issue in connection to the aging population is how to make web more accessible. Usability is a non separate able part of SAO as site accessible to users is automatically more accessible to search engines. The site we developed has many external links to workshop organizers sites which will again boost Google visibility. Search engines are occasionally compared to a world most active blind user and web spiders application used by search engines function on the comparable principles as screen readers. Fairly recent study of Lazar(2004)⁴ point out that large percentages (70–98%, depending on the category of site) of web sites are not accessible: private and non-profit web sites , for-profit commerce web sites , USstate web sites , and even USFederal web sites were found to have major accessibility problems, in addition, over time, web sites are getting more inaccessible as accessibility violations have been added to sites. He also shares some very useful ideas on accessibility: (this guidelines are taken from US government site <http://section508.gov/>)

- alternatives to multimedia presentation: we have a plan to add a video interview to Cate's site so the alternative would be a transcription.
- we tested a readability without stylesheets and outcome was positive.
- the list provides a suggestion to have a link to sites were users can download plug-in, if we provide a content which would require one. This will be relevant once we add the video which would most likely be in the Adobe Flash format.

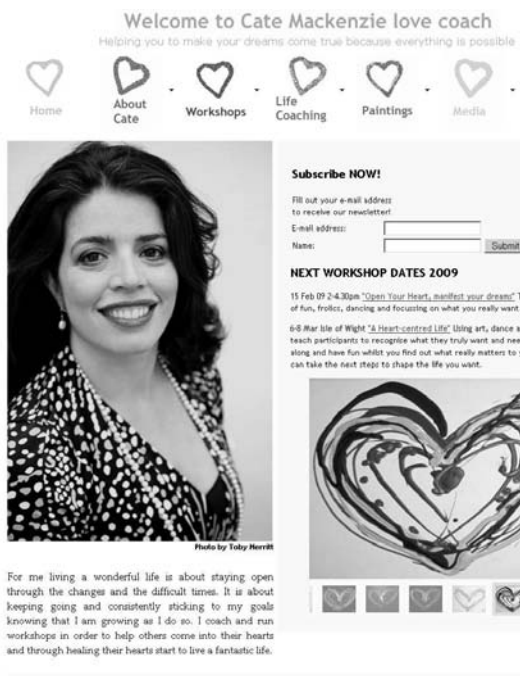
The public conceives accessibility as something only related to people with disabilities who would be required to obtain extra gadgets like screen readers and similar products but in fact the responsibility is with technology designers, browser developers, authoring and content developers tools developers and even authors to write more concisely. Brewer (2004)³ also dispels the myth that accessible sites are text-only based and must surely be boring and dull. She also explains how users with different disabilities have completely diverse needs. Many good features are build into latest text editors, for example Dreamweaver reminds us every time we place a picture on the page to add an alt tag which serves as a description for blind users. To do things online is the norm at present. Just think of getting airline tickets,

tax return, groceries, electronics, even houses are sold on line so it is our duty to make this available to practically everyone but here we leap from web mastering to the field of education and economics and moral obligations. As our lives are enhanced by internet experience we should share this with all regardless of their capabilities or disabilities by creating an all-inclusive design.

Accessibility is not limited to ethics, we also have an financial and business consideration, there are 750 Million disabled people around the globe according to Tim-Barnard Lee (one of the founders of world wide web and the director of W3 (World Wide Web consortium), so we would be insane not to cater for such a huge segment of the market. There are also certain obligation to make our site accessible by the law. W3 gives many important guidelines on accessibility. We followed their evaluation accessibility tools (<http://www.w3.org/WAI/eval/>) to find where we can progress.

Preliminary steps:

- selecting a sample page, examining with different browsers: Here we are asked to turn images off which is quite amusing, when we turned sound off we realised that maybe we ought to have transcription for audio files. We have managed to navigate the site with Tab keyboard button but it was not very efficient. This was also a reminder to implement access keys. (ie. letter h on the keyboard takes user to home page)



The site as would be possibly viewed by the colour blind user.

- the next step is the use of voice browsers but unfortunately w3 links are broken and after downloading one from IBM site we have abandoned this

step. A screen reader jaws was also downloaded but unfortunately our operating system (Vista 64 bits is not supported), plus the same problem with a program called Window-eye which ironically makes these programs inaccessible to those using latest technology! We have a visual insight to how the site would be rendered through Fangs Firefox plug-in. Details are inside documentation section.

Conformance evaluation:

- is HTML validation service, which we carried beforehand (<http://validator.w3.org/>)- part of the validation is a clever option of having well formatted markup valid document generated.

Evaluation

- ongoing monitoring

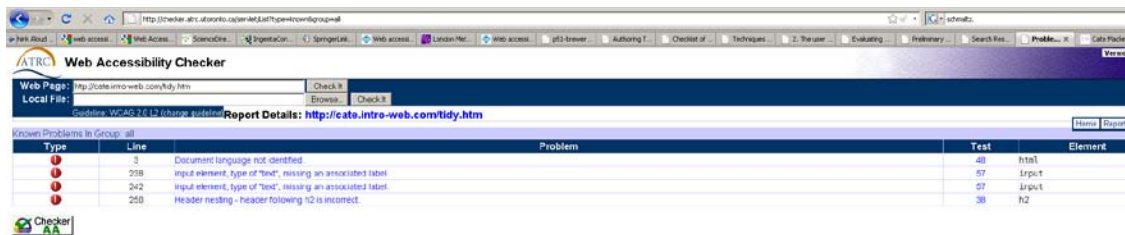
Involving Users Web Accessibility Evaluation

- This step is beyond the scope of current project, it involves formal usability testing, when we find people with disabilities and would ask them to engage in some way with our application. This could be some simple task they would be asked to complete and hopefully have a discussion about their experience afterwards.
- Including users from different background. In the case of our product we take the (un)famous Microsoft approach: placing the product on the market and then gather feedback and on the basis of data we collect we adjust the application accordingly. How we will collect data apart from some personal feedback or emails is still not decided, we can have a tiny form asking user for comments but this would have to be carefully placed on the site, so it would not conflict with look and feel of the overall design.

As my client is active internationally we may also consider accessibility abroad, where broadband is not as widely available. This issue may need to be considered once we add more multimedia content.

Identification of external expertise

- even established organizations with a broad knowledge of user testing require external help when it comes to disability user data gathering and evaluation. In the scope of our project we would most likely not have the luxury of external help from professionals in the field, nonetheless we may be lucky and receive various impaired or disabled visitors on the site.



web accessibility checker

To be more effective with time developer needs to be able 'feel the next step'. To give an example: there was quite a bit of time spend on formatting the text, adding all the needed tags like <p> for paragraph,
 to start a text on the next line, which was all lost later on as the client delivered a slightly different piece of text. Yet there may not be any solution as we cannot expect the client to be ready from the very start and we must be flexible.

There is a new concept in the business spheres: learning from the future. In context of this project future would be more ambitious. More readability in XHTML by proper commenting and aim for higher standard of XHTML formatting: move from transitional to strict.

The fundamental issue of user and client centric design development is to apply one's research knowledge of the ways users operate and at the same time having the client fully satisfied and ultimately assist the client to make the best decisions. The input of the client was very positive and constructive one, for example the client provided some model sites which we observed and incorporated into our site (examples: nigella.com, gabriellagoddard.com), this brought about not only inspiration but also a type of guidance to the developer by understanding which way the client likes to present herself. The author continuously communicates with the client and this way we constantly assess and re assess clients needs and produce a better site.

A critical evaluation in relation to MA Digital Media studies

Two University modules were particularly helpful for work placement mission:

1) Design for the Internet, where all phases of site development were discussed:

- critical analysis and product development in professional context
- usability, accessibility in context of communication and society

this module also helps students to get a prolific command of Adobe Dreamweaver which is the industry leading text editor for web development.

2) Web application design

- we have learned about application design methodology
- technical issues of interactive product development were discussed

- competence in web application development

this module strongly contributed to my placement by providing a profound knowledge of PHP- scripting language utilized for dynamic web pages production. For example a contact form was created in PHP for Cate's site but the main advantage of having the knowledge of PHP is the possibility to have content management system (CMS). CMS will give Cate the freedom to update the site independently of her webmaster. The most popular CMS in this moment is JOOMLA (www.joomla.org) closely followed by Drupal (drupal.org). The test Joomla site was created for the client to familiarize with the system and if the client is not satisfied we will try Drupal version of CMS. Inside the Web application module we also created a simple custom CMS. Once the client is satisfied with specific CMS the site will be converted to that particular system. The strong advantage of JOOMLA is its huge popularity, thus if we run into problems we are likely to find answers on Joomla forums.

Conclusion:

This work placement is regarded by the author as a stepping stone to ICT industry and his first real life IT accomplishment outside of University. It will be a first IT mark on CV and very valuable milestone from an inexperienced novice to fairly confident starting web developer. While writing this report and looking closely into the area of accessibility we discovered that we still have a very long way to go and there is no space for complacency whatsoever. Making products more usable is an imperative: for example (depending on future projects) "em" or "%" value for fonts will be considered, as while we use pixel values we achieve picture perfect on most ordinary screens but we do not support font scalability for disabled users and we cannot easily scale down for mobile devices.

The simplicity and clear navigation of the site we built should make it easier for the visitors to use and they would be able to accomplish tasks more effectively (like learning about workshops, life coaching programs or viewing image gallery) and they will find the design satisfying.

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Complete List of Web Accessibility Evaluation Tools:
<http://www.w3.org/WAI/ER/tools/complete>

Appendix: A reference letter

CateMackenzie
49d Lamont Rd
London
SW10 0HU
www.catemackenzie.com
4th January 09

Dear Sir/Madam,

My name is Cate Mackenzie and I am writing to you because I have employed David Olsan to design and produce a new web site for me. David has worked attentively and hard at producing a web site which is exactly what I want. He has designed many pages and made it look very original. He has put radio clips, meditation clips, photos of art, words, a sign in to give your email, a page to write a message, designed a newsletter and is helping to create a system which is easy to manage as well as looks good.

David is utterly professional and has made the whole process an enjoyable experience. I have no hesitation in commending him and his work.

Thank you

Cate Mackenzie

Additional files available upon request:

1. Documentation screenshots.
2. Questions and Answers for our client at the beginning of the project
3. Report power point presentation.
4. Site source files