

A color photograph of a soldier in a yellow uniform and helmet, aiming a bazooka upwards. The bazooka is firing, with a large plume of white smoke and fire visible at the muzzle. The soldier is wearing goggles and a belt. In the background, other soldiers and a vehicle are visible on a battlefield under a blue sky with white clouds.

Accessibility and you

A broader view.

Christian Heilmann | <http://wait-till-i.com> | <http://twitter.com/codepo8>
Brown Bag @ gumtree/ebay/paypal/skype – June 2009, London, England

Access

A photograph of a blue double door set into a brick wall. The door is covered in white graffiti. The text on the door reads: "PLEASE" (underlined), "DO NOT BLOCK", "THESE DOORS", "UNLESS WE SAY:", "'OH ALRIGHT THEN", and "JUST THIS ONCE". The door has a metal handle and lock. The surrounding brick wall is weathered, with some plants growing on the right side. The ground in front of the door is covered with dry leaves.

PLEASE
DO NOT BLOCK
THESE DOORS
UNLESS WE SAY:
"OH ALRIGHT THEN
JUST THIS ONCE"

There is an amazing amount of misconceptions about accessibility. In its very basic form it means that we don't block out people because of conditions they cannot readily change.

Availability



This is different to availability, which is an absolute must when it comes to anything we offer customers. We need our web products to be up and responsive, or have a good call center to fill in when they are down. The mere idea of having a web product came around so we are available 24/7 and on the cheap.

Lack of barriers



The German term for accessibility is “Barrierefreiheit” which means "lack of barriers". This actually makes more sense. It doesn't mean however that the German market is better or more switched on. They could be but other things keep them from being really effective.

Law and orders



The issue is that a lot of accessibility work is being done to comply with legal requirements. This is a wonderful "covering our arse" tactic, but it will not result in good, accessible solutions. Fear of lawsuits or persecution makes you creative in avoiding these but also distracts you from the goal of producing something that makes sense for all users out there. We are not here to comply with laws, we're here to make things work for people.

People



<http://www.flickr.com/photos/rileyroxx/169900126/>

People is what our work should be about. How can we make people happy with what we provide? How can we make sure that everybody has a very good time using our products, comes back for more and tells all their friends about it?

Myths



The main problem is that instead of keeping our eyes open and peeled on the future we are very quick to believe in accessibility myths. Most of the time because they sound like a quick solution to a large and complex issue.

Disconnect



The next issue is that the world of accessibility and the world of web development is terribly disconnected. I get the feeling that the accessibility world stopped seeing the web and its technologies as something that evolves around 1999. The web development world (or at least the loudest advocates) on the other hand are fed up with people not staying up-to-date and start yelling for abandonment of technology that is still very much in use.

Irony



A blue, stitched, donut-shaped object with a face, pinned to a computer keyboard. The object has a central hole and a smaller hole in the middle of its body. It has a face with two white 'X' eyes and a white mouth. It is pinned to the keyboard with three blue pins. The keyboard has various keys visible, including 'F2', 'F6', 'F7', 'F8', 'F9', 'F10', 'F11', 'F12', 'F13', 'F14', 'F15', 'F16', 'F17', 'F18', 'F19', 'F20', 'F21', 'F22', 'F23', 'F24', 'F25', 'F26', 'F27', 'F28', 'F29', 'F30', 'F31', 'F32', 'F33', 'F34', 'F35', 'F36', 'F37', 'F38', 'F39', 'F40', 'F41', 'F42', 'F43', 'F44', 'F45', 'F46', 'F47', 'F48', 'F49', 'F50', 'F51', 'F52', 'F53', 'F54', 'F55', 'F56', 'F57', 'F58', 'F59', 'F60', 'F61', 'F62', 'F63', 'F64', 'F65', 'F66', 'F67', 'F68', 'F69', 'F70', 'F71', 'F72', 'F73', 'F74', 'F75', 'F76', 'F77', 'F78', 'F79', 'F80', 'F81', 'F82', 'F83', 'F84', 'F85', 'F86', 'F87', 'F88', 'F89', 'F90', 'F91', 'F92', 'F93', 'F94', 'F95', 'F96', 'F97', 'F98', 'F99', 'F100'. The word 'Irony' is written in large white letters in the top left corner.

<http://www.flickr.com/photos/evilnickname/2105464658/>

<http://www.chigarden.com/2007/10/tutorial-making-the-ie-voodoo-doll/>

<http://www.chigarden.com/2007/10/tutorial-making-the-ie-voodoo-doll/>

Internet Explorer 6 is the bane of the existence of every web developer out there. The reason is that people do not upgrade it because it does the job. I call this the good enough syndrome. For very outspoken advocates of accessibility, IE6 on Windows is also the only browser which supports assistive technology to the fullest. The reason is that monoculture allows you to build things once and then patch instead of evolving your product. Assistive technology is a very expensive piece of kit and the market is scared of losing that source of income.



<https://www.flickr.com/photos/jasoon/10837680/>

Innovation on the web is driven by being open. Show your software to the world and people help you find and fix bugs. People also tell you about issues they encountered that you hadn't thought of. Open your data to the world and people show you more effective ways of using it or how mixing it with other data sources can tell stories hidden in your information. The accessibility world doesn't work like that yet. The reason is once again that most clients want to know about legal compliance rather than really caring about the end result.

Disability




One other problem is that accessibility is always connected with disability. Disability is a topic that makes us feel uneasy talking about or acknowledging. It is also a tricky subject to talk about because of the language differences and it is easy to say a non-PC term without wanting to. I've found that people like to deal with it by targeting single instances that are easy to grasp. How does a blind user deal with that? Cool, let's fix it for him. Disability is much larger than that and exists in numerous levels of severity.


A Nice Electric Shock
敏銳電感

Market shift

One thing that makes me very happy to see is that the internet user market is shifting. The biggest and fastest growing group of internet users is something you would not expect.



The highest level of discretionary income in the US is held by older Americans, especially those between 64–69, at \$6,920.00 per year. The age group with the **highest concentration of online buyers** is the 50–64 age segment, with over **25% making online purchases.**




The fastest growing segment of the U.S. population is the 65 and over group. The U.S. Census Bureau projects that the population of those 65 and over will more than double between now and the year 2050, to 80 million. The result of all this – a large and rapidly expanding market of web users that have significant disposable income and a need for accessible web sites.



Different needs?

With this shift we have to reconsider the approach of our web products. Elderly people have different needs than the young go-getters that we are. Right?



As we age, most people experience a decrease in vision, hearing, physical abilities, and cognitive abilities. The percentages of people with disabilities increases significantly with age – 13.6% at age 18–44, 30% at 45–64, 46% at 65–74, 64% at 75–84. Use of AT increases with age, with 52% of AT devices used by those 65+.

旅游星级厕所 STAR-RATED TOILET



北京市旅游局颁发

ISSUED BY BEIJING TOURISM ADMINISTRATION

Same Needs

Elderly and disabled people do not have different needs than other people, all they have is a more obvious need for the same things.

1 Are you a girl or boy?

☒ yes

☐ no

Simplicity

The first thing to think about is keeping things simple. Build working solutions with the technologies at your disposal and enhance them iteratively after checking that the enhancement can be applied.

Web | Images | Video | Audio

☒ Web ☐ Images ☐ Video ☐ Audio

<http://uk.tv.yahoo.com/>



Usable Interface

It is interesting to see how many times we do this wrong. Instead of sending users onto a path that leads them to the first sensible result and thus giving them a positive learning experience we overload them with information hoping they pick the right one. Marketing and internal policies dictate what goes on the first thing we show end users. Developers fail the same way: being power users ourselves we tend to pack in feature after feature instead of making the interface a journey of sensible pieces of information.



<http://www.flickr.com/photos/ginnerobot/3554231094/>

One company had this down like nobody else. Nintendo. With the Wii they broke all the barriers of conventional gaming ideas. Instead of learning a complex system of buttons and levers all you needed was move the game controller as you would play the game in real life. This breaks boundaries and barriers. Elderly people and the Wii are no problem – on the contrary, they are in use in rehab centers.

old people playing Wii

Block



★★★★★ 269 ratings

235,462 views

http://www.youtube.com/watch?v=K_ARvhT6Gzc

CNET NEWS: Wiihab Your Way Back To Health with Wii Fit

Block

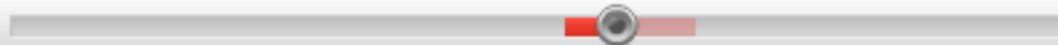


<http://www.youtube.com/watch?v=-R2WWgH1Jdc>



Erickson Sports' Nintendo Wii Bowling Championship- Game 1

Block



4:11 / 7:17



HQ



★★★★★ 2,015 ratings

621,391 views

http://www.youtube.com/watch?v=Pzp8S_7yspM&



Multi channel

One thing that people keep forgetting is that the internet is not a single access channel media. The web can be accessed in various ways: from a computer, a games console, a mobile device, a TV set, a Kiosk system and many more channels. This means that you can not deliver a one size fits all solution – instead you should concentrate on not blocking these access channels.

TV Tonight

[What's on Now](#)

[Find a channel](#)

Switch display mode

- [Grid](#)
- [Hourly table](#)

Times shown here:

1. [20:00 3 hours earlier](#)
2. [21:00](#)
3. [22:00 3 hours later](#)

[BBC 1](#)

1. [20:00-20:30 Rogue Traders](#)
2. [20:30-21:00 Traffic Cops](#)
3. [21:00-22:00 The Hottest Place on Earth](#)
4. [22:00-22:25 BBC News at Ten](#)
5. [22:25-22:35 Regional News and Weather](#)
6. [22:35-23:35 Question Time](#)

[BBC 2](#)

1. [20:00-20:50 Natural World](#)
2. [20:50-21:00 The Rabbits of Skomer](#)
3. [21:00-22:00 Oil Spill - The Exxon Valdez Disaster](#)
4. [22:00-22:30 The Graham Norton Show](#)
5. [22:30-23:20 Newsnight](#)

[ITV1](#)

1. [20:00-21:00 The Bill](#)
2. [21:00-22:00 The Truth about Super Skinny Pregnancies](#)
3. [22:00-22:35 News at Ten and Weather](#)
4. [22:35-23:40 Dexter](#)

[Channel 4](#)

1. [20:00-21:00 10 Years Younger](#)
2. [21:00-22:00 Cutting Edge](#)
3. [22:00-23:05 Ramsay's Kitchen Nightmares USA](#)

[Five](#)

1. [20:00-21:00 I Own Britain's Best Home 2009](#)
2. [21:00-22:00 The Mentalist](#)
3. [22:00-23:00 Law & Order: Criminal Intent](#)

[Sky Movies Premiere](#)

1. [20:00-21:45 Semi-pro](#)
2. [21:45-23:30 I Am Legend](#)

TV Tonight

« earlier	20:00	21:00	22:00
Find a channel			 Grid
BBC 1	Rogue Traders	The Green Green Grass	New Tricks
BBC 2	Jimmy Doherty in Darwin's Garden	Darwin's Dangerous Idea	BBC News at Ten
ITV1	The Bill	Billy Connolly: Journey to the Edge of the World	The Graham Norton Show
Channel 4	10 Years Younger	Red Riding	News at Ten and Weather
Five	Stylista	Soho Blues	Bloodsport
Sky Movies Premiere	Cloverfield	Be Kind Rewind	

<http://uk.tv.yahoo.com/>



terribly exciting adventure|

Tally Ho!

Chocks Away

Search: ☒ the web ☐ pages from Blighty

A jolly good time

My main bugbear with web sites and products is that people think that creating accessible products means making them less pretty and not with the full set of features. The scary thing is that the expert sites do give that impression.

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- [Accessible website directory](#)
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- [Design & build](#)
- [Plan & test](#)
- [Articles](#)
- [Case studies](#)
- [Downloads](#)
- [WAC sitemap](#)
- [WAC blog](#)

Web Access Centre [Print](#) [Email](#)**JK Rowling Flash website - Case study - Web Access Centre**

Summary: The relaunch of JKRowling.com saw LightMaker push the boundaries of accessible Flash. This case study provides an overview of key issues tackled to make the site as accessible as possible.

- [Summary](#)
- [Introduction](#)
- [Accessibility features](#)
- [Flash accessibility – moving forward](#)
- [About Lightmaker](#)
- [Case studies](#)

www.jkrowling.com**Summary**

Lightmaker pioneered new accessibility features for disabled, blind, partially sighted, mobility impaired, deaf and cognitively-disabled internet users with the development of an accessibility enabled Flash version of jkrowling.com. Lightmaker worked closely with the RNIB, RNID and Macromedia in this development.

More info**In your area**

- [Jobs](#)
- [Scotland](#)
- [Wales/Cymru](#)
- [Northern Ireland](#)
- [England regions](#)
- [Events](#)

Quiz

UVA and UVB rays in sunlight do not contribute to eye diseases.

- ☐ True
- ☐ False
- ☐ I don't know

Latest updates

“Accessible web sites don’t need to be ugly!”



WELCOME TO THE NFSUK WEBSITE ...

The National Federation of Shopmobility UK (NFSUK) is a UK registered Charity. It exists to support and promote its affiliated Schemes to existing and potential customers, and encourage the development of new Schemes. In addition NFSUK will do whatever it can to facilitate public access and offer related guidance and information.



Please scroll down this page for the latest information or click on the buttons on the left for more general information and guidance.

STOP PRESS!! Information about NFSUK`s Spring National Conference has been published and is available under the "News Items" link

WARNING ...

Make sure that you check any Shopmobility Scheme you use is affiliated to NFSUK before you use them. Simply ask them if they are affiliated and if they are to show you their current Certificate of Affiliation. You can always check our Directory of Schemes or contact us if you are in any doubt. That way you will be sure that they meet NFSUK`s national service accreditation and best practice standards. Not all organisations that describe themselves as a "Shopmobility Scheme" are affiliated and a very small minority of commercial mobility companies try to pass themselves off as being affiliated when they are not. If you encounter anything like this please make sure that you let us know about it. You will need to





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These have been published to Affiliated Schemes and are also available direct from NFSUK. Make sure that you visit regularly to keep up-to-date with what's happening within the Shopmobility Network, and benefit even more from what's on offer! You can call our 24 hour answerphone service or email us with your needs for mobility equipment (hire or purchase), accessible accommodation (at home and abroad) or insurance (personal or corporate).

WINTER 2008 EDITION OF THE SHOPMO SHUTTLE

The Winter 2008 edition of the ShopMo Shuttle has been published and distributed to Affiliated Schemes. It is available on the Affiliated Schemes' only password protected Website bottom button on left, along with much more information.

2009 NATIONAL AWARENESS DAYS

Following the success of the 2008 Awareness Days, NFSUK is co-ordinating those planned for 2009 so that they will take place on Friday 15th and Saturday 16th May 2009. NFSUK will be seeking sponsor support for these prestigious national events. Please contact us if you are interested in helping us with them.

2009 NATIONAL CONFERENCES

NFSUK has announced the dates and other information about its National Conferences planned for 2009:

The Spring Conference will be held on Friday, 20th March 2009 at the Holiday Inn Express Hotel at Glasgow International Airport.

The Summer Conference and 2009 AGM will be held on Friday, 10th July 2009 at the Holiday Inn adjacent to Leeds Bradford Airport.

The Autumn Conference will be held on Friday, 16th October 2009 at the Holiday Inn at Southampton near to Southampton Airport and Rail Coach Interchange.

NFSUK will be seeking sponsor support for these prestigious national events. Please contact us if you are interested in helping us with them.

NFSUK wishes to encourage as many Schemes, and prospective affiliates, as possible to attend our Conferences in 2009. Should you want more advanced information about the Conference Programme please contact NFSUK.

2009 BEST PRACTICE AND TOM HILLIER AWARDS

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



Making it sexy

You can however build something that is sexy and accessible if you put enough effort into it. Take for example the "Yahoo Currency Converter": <http://finance.yahoo.com/currency-converter?u#from=USD;to=EUR;amt=1> which makes my life much easier and is highly accessible. It needed some "effort and dedication to get it that far though": http://developer.yahoo.net/blog/archives/2009/01/accessible_converter.html

JANUARY 21, 2009

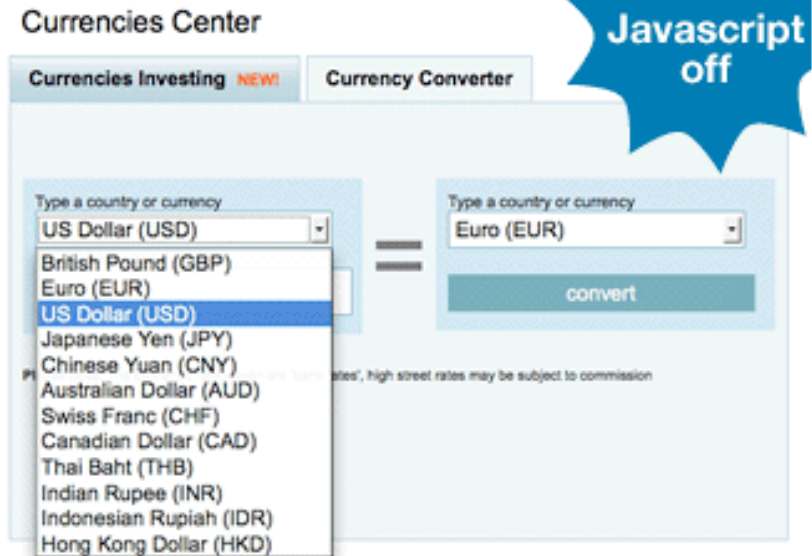
Making the new Yahoo! Currency Converter accessible

When my fellow coworker, the user experience designer **Graham Beale**, and I started thinking about the new **Yahoo! Currency Converter** we had a few clear objectives:

- make it as easy as possible to use
- make it work without page reloads
- make it fast
- make it accessible to everyone

For the last, but not at all least, point we were lucky and very happy to have **Artur Ortega** on our team. Artur is not only a brilliant backend engineer but also a screenreader user himself. Without his endless testing and suggesting workarounds, this application would not have been possible.

To arrive at the application you can use today, we went through an intense prototyping and user testing phase with many different iterations. Some of those iterations are still in the converter as parts of our progressive enhancement concept and all of them are based



http://developer.yahoo.net/blog/archives/2009/01/accessible_converter.html

[Show Help using this Converter](#)

Type a country or currency

United States dollar (USD) ▼

Please enter an amount

\$

1

=



Type a country or currency

Euro (EUR) ▼

Please enter an amount

€

0.7961

Using an exchange rate of 1 USD = 0.7961 EUR for 5 March 2009  [View 5 Day Trend](#)**Please note:** The exchange rates given are 'bank rates', high street rates may be subject to commission**Pocket Guide** for 5 March 2009

United States dollar (USD)

\$ 5	\$ 10	\$ 50	\$ 100	\$ 250	\$ 500	\$ 1000
€ 3.98	€ 7.96	€ 39.81	€ 79.61	€ 199.03	€ 398.05	€ 796.1

[http://finance.yahoo.com/currency-converter?
u#from=USD;to=EUR;amt=1](http://finance.yahoo.com/currency-converter?u#from=USD;to=EUR;amt=1)



Endpoints

If you look at the currency converter then you'll also realize that the URL is something I can send in a link to somebody and it will make sense immediately to that person. This way I can publish and promote my product to a much larger audience. I can even allow people to send different versions of the same product catered to different needs with url parameters.

[http://finance.yahoo.com/currency-converter?
u#from=USD;to=EUR;amt=1](http://finance.yahoo.com/currency-converter?u#from=USD;to=EUR;amt=1)

[http://finance.yahoo.com/currency-converter?
u#from=AUS;to=GBP;amt=20](http://finance.yahoo.com/currency-converter?u#from=AUS;to=GBP;amt=20)

[http://finance.yahoo.com/currency-converter?
u#from=EUR;to=USD;amt=12.21](http://finance.yahoo.com/currency-converter?u#from=EUR;to=USD;amt=12.21)

<http://delicious.com/tag/elephants>

<http://delicious.com/tag/donkeys>

<http://delicious.com/tag/rabbits>

<http://www.flickr.com/photos/tags/elephants>

<http://www.guardian.co.uk/travel/restaurants>

[http://www.rnib.org.uk/
xpedio/groups/public/
documents/publicwebsite/
public_jkrowling.hcsp](http://www.rnib.org.uk/xpedio/groups/public/documents/publicwebsite/public_jkrowling.hcsp)



Bad URLs don't look like a big problem but they are extra effort that is not needed.



Pimping

That's all well and good, but what if you have already a solution in place? In most cases these days we will have a massive system already that is hard or impossible to change.

Hackable



As Tristan Nitot of Mozilla puts it – "the web is hackable":<http://standblog.org/blog/post/2009/06/03/The-Web-is-hackable>

I mean "hackable" in the sense that one can decide to experience it in ways that were not exactly what the author decided it would be. In short, the Web is not TV. It's not PDF either. Nor Flash. Using systems like Mozilla Jetpack, YQL, GreaseMonkey and Pipes I can easily prototype changes that should be done to web sites to make them more accessible. These are simple things like injecting language attributes or labels. A lot of HTML problems are in web sites because the maintainers are not aware of the barrier they cause.

Not all his inventions were groundbreaking

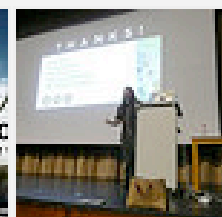
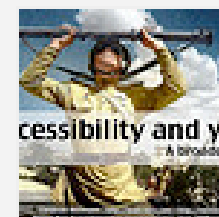
Share

[+](#) ADD NOTE [SEND TO GROUP](#) [ADD TO SET](#) [BLOG THIS](#) [ALL SIZES](#) [ORDER PRINTS](#) [ROTATE](#) [EDIT PHOTO](#) [DELETE](#)



Uploaded on [June 3, 2009](#)
by [codepo8](#)

[codepo8's photostream](#)



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Tags

[davinci](#) ×

[toiletroll](#) ×

[Add a tag](#)

Additional Information

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[Add to your map](#)

[Taken with a Panasonic DMC-TZ3](#)

[More properties](#)

[Taken on June 2, 2009](#) ([edit](#))

[Photo stats](#)

[Viewed 169 times](#) (Not including y

[Edit title, description, and tags](#)

[Replace this photo](#)

Embed photo:

```
<a href="http://www.flickr.com/photos/codepo8/3592787210/"></a>
```

This is an example of enhancing a product with Greasemonkey. As you can see I collect a lot of photos and needed a quick way to access the link for copy and paste. With JavaScript and GreaseMonkey this was easy.

Mashable



<http://www.flickr.com/photos/nedrichards/2314696728/>

If you really want to help, open your data out to the world and let the millions of developers out there show you how things can be fixed. Praise them, invite them and support them and we all win. Build an own API, or if you don't want to go that far, build some open tables for YQL.

YouTube Address:

Load

You can go to the YouTube video you want to watch and copy and paste the address at the top into this box.

Video Size

Small

Medium

Large



Volume



© 2008 by Chris Heilmann, [documentation and help is here](#).

Use this box to search for videos on YouTube you are interested in, or choose a video from your playlist.

Search

Go

Search Results / Your Playlist

[Officer Stops Rush Hour Traffic for Ducks Crossing](#)

[Duck and 9 ducklings](#)

[It had to be done, and I am sorry](#)

[Panda Cubs On A Slide](#)

[A deaf choir singing a song in sign language](#)



Scripting Enabled

Hacking the web to be more accessible

"Scripting Enabled": <http://scriptingenabled.org> was the first accessibility hack event and is completely open for you to organize, too.



Scripting Enabled

Hacking the web to be more accessible

Styleable



Techies are easy to reach but to build a beautiful and accessible web we also need to reach out more to the designer world. Accessibility is not an enemy of beauty, there is a lot of interesting and creative challenge and gain in making things work across the board.

Educating



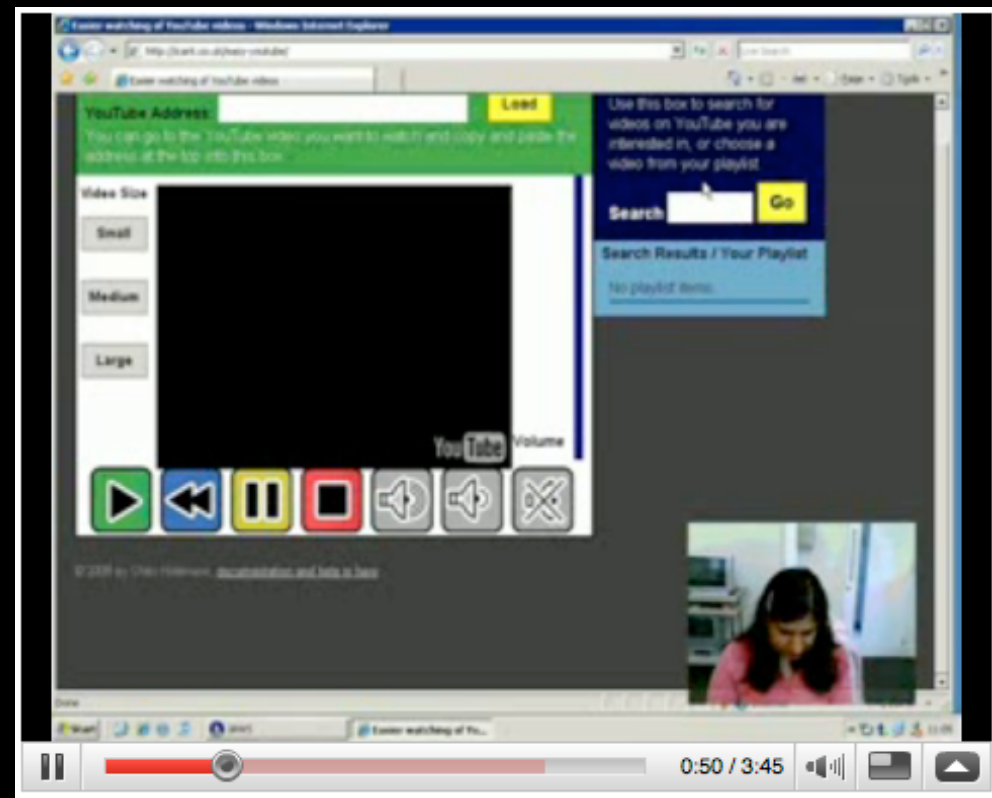
http://www.flickr.com/photos/pascale_pictures/3034691276/sizes/o/

I hope that you now have a better idea just how many options you have to make the web a more accessible place. Our training and teaching on the subject should be closer to people's needs rather than technical implementation of guidelines. Let's talk to HR about this.

Reward



The reward for building an accessible web is not only monetary. First and foremost we make the media we work in reach a lot more people, all of which can contribute to the web but are stopped before they can even consider it. Check these videos to see just how much more empowered people feel if they get an interface they can work with.



<http://www.youtube.com/watch?v=CwsDKaalggq8&>

<http://www.youtube.com/watch?v=QiuT0y0KR6I>



Dedication

To make this work for you, all you need to do is put some dedication into the whole subject. You can be very accessible companies but everybody has to understand what is going on.



Collaboration

Together we are stronger. If more and more companies show that they are understanding the need for accessibility and want to do the right thing but lack the backup from the accessibility world we can fix the web.

THANKS!

Keep in touch:

Christian Heilmann

<http://wait-till-i.com>

<http://scriptingenabled.org>

<http://twitter.com/codepo8>

