Are CAPTCHAs Accessible?

Asked 15 years, 11 months ago   Modified 2 years, 11 months ago

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11

I am writing a website in my spare time for an educational facility and from what I've read on the statistics of this place they seem to have many disabled students studying there. Simply put, I'm setting up an account system where students can log in and receive basic information about their courses, allowing them to comment on their courses and how they felt the course represented them.

I'm not too sure on the legal implications of this, but I am pretty sure that if you are working for an educational body then it is a legal requirement for your website to be accessible to those with disabilities. The code is perfectly fine, apart from one problem; the CAPTCHA.

As far as I am aware most CAPTCHAs are image-based, which will make those using screen readers struggle. On top of that, ones that support sound readings may not work too well as in many buildings there are no speakers for the user to listen to the recording. I could always use a small field asking a user to put two numbers together but those are often far too easy for bots to attack.

I may be making a mountain out of a molehill but it's still an interesting question for those that have an interest in

accessibility. Does anyone know of a good way to keep spammers out and users in within this environment?

accessibility   captcha

edited Jan 13, 2022 at 22:32

TylerH
21.2k ● 76 ● 79 ● 110

asked Jan 8, 2009 at 15:18

Mike B
12.8k ● 20 ● 84 ● 109

I'm confused now. If a user is using a screen reader, then how is it reading of there is no audio output? So an audio captcha should work in the cases that it is needed.
– Stever B Jan 8, 2009 at 15:46

Not all students have computers in their homes and on many campuses most public computers do not have speakers, so an audio output would be inaccessible to them. It's silly, but most universities would rather cut costs than put basic hardware in/near computers... – Mike B Jan 8, 2009 at 15:58

So, my question is, if they are using a public computer with no speakers or head phones, then how are they able to use a screen reader. I'm not trying to nitpick, just trying to figure out how they are able to get things done at all. – Stever B Jan 8, 2009 at 16:01

Some blind users (and all deaf-blind users) use Braille displays. However, most blind folk will use a screen reader

with audio, so the audio captchas are only really a problem for the deaf-blind. – Aaron Mar 6, 2010 at 19:20

7 Answers

Sorted by: Highest score (default) ⇅

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First of all, yes you are 100% correct that it is an issue. Any captcha that provides images with garbled text are NOT accessible to screenreaders, and if you are in an organization that has to support it, you CANNOT just use a captcha.

Secondly, I personally agree 100% about the limitations of a audio captcha as well.

Personally I would implement a standard Captcha such as ReCaptcha or something similar then have a "can't see the image" link, that takes them to a less secure captcha, if you really need to have one. It really depends on the purposes of your site. Simple math can work, but it is a bit harder to do.
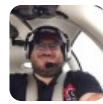
But given your system, I'd almost say that you limit the system to authenticated users for input, and then not require a captcha for comment or other submissions, as that avoids the issue.

This site shows an example of other text based captcha items, but depending on the audience they may or may not be possible.

Share   Improve this answer   answered Jan 8, 2009 at 15:29

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Consider rolling your own text-based CAPTCHAs.

- How many days are there in a week?

- How many moons does the Earth have?

- Snow White and the _____ Dwarfs

Accessible and not anticipated by bots. Hell, mix in stuff that only these students would know, like trivia about the school. At least then there's some intrigue to the CAPTCHA instead of just an annoying, impersonal step before they can finish filling out the form.

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answered Jan 8, 2009 at 15:25

Phantom Watson
2,707 ● 4 ● 25 ● 40

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I'm a totally blind college student and wonder why you need captia's at all? At my school any online survey uses the students email and password to log in before taking it. Secondly I find some audio captia's are not accessible and the ones that are usually aren't worth the time unless it's for a site I really care about. Even if you provided an audio version of captia for the site you are working on if I was a blind student I probably wouldn't bother with the site. Third if the student is using firefox then almost all image captia's are accessible, see the Webvisum

extension at http://www.webvisum.com/ Edit: If this is a university sponsored website ask the disability department at the university for Input. If it is a personal website that caters to students of a specific university then do what ever you have time to do since you won't be under the requirements for sites run by an actual educational institution.

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edited Jan 8, 2009 at 16:04

answered Jan 8, 2009 at 15:53

Jared
39.8k ● 29 ● 113 ● 146

This would've been an ideal solution but as far as I know I will not be able to use the current student login credentials as it is not required by all the students (or something along those lines). – Mike B Jan 8, 2009 at 15:55

In that case text based captia's are the ones I find easiest to use, if this is a site that will be run by the university and not as a personal project contact there disibility office and see what they have to say. – Jared Jan 8, 2009 at 16:00

That's a good idea. They'll probably be a lot more helpful than others. Thanks for your input! – Mike B Jan 9, 2009 at 3:16

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Surely by definition image CAPTCHA's are not accessible for blind people (or anyone who needs a screen reader); they are designed to be unreadable/hard to read for machines.

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answered Jan 8, 2009 at 15:25

DanSingerman
36.5k ● 13 ● 83 ● 96

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The Official CAPTCHA Site says "Any implementation of a CAPTCHA should allow blind users to get around the barrier, for example, by permitting users to opt for an audio or sound CAPTCHA."

I'm not a lawyer, but in my opinion if you provide the audio option then you are accommodating vision-impaired users -- it's not your responsibility to make sure they have speakers.

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answered Jan 8, 2009 at 15:27

jeffm
3,151 ● 1 ● 34 ● 59

But in an educational institution that has public labs without speakers, there could be a gray area – Mitchel Sellers Jan 8, 2009 at 15:29

How can the institution itself be supporting blind computer users if they don't have speakers? It's like the punchline to the old joke: "What happened God, didn't you say I'd be the next winner of the lottery?" And God answers "Do me a favor

my son...buy a ticket!". They've gotta meet you halfway.

– jeffm Jan 8, 2009 at 15:44

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From your profile your I can see that you are in the UK so I assume that you need to comply with UK law including the DDA. It is worthwhile reading, and in a lot of cases you can only make a best effort, lots of sites are not absolutely accessible. You should consult with your peers to understand the policy of the institution.

The short answer is that CAPTCHAs are not accessible to everyone. That said there seems to be a scale of accessibility from pure image CAPTCHAs to logic puzzles which can be represented in HTML. Some people have been along a similar journey to yourself.

I think it might be best to take a step back and consider your reasons for requiring the CAPTCHA and who you want to keep out. Have you considered using IP-based restrictions for your site so that only people on your campus network can access the site, or does your application need to be on the internet.

Another option is restricting the number of logon attempts, and preventing attempts for a time, or locking out the account until a link in an email is restricted. As always your mileage may vary, but perhaps people here can help if you provide more context.

answered Jan 8, 2009 at 15:34

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Brian Lyttle
14.6k ● 15 ● 69 ● 106

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Yes, obviously image-based CAPTCHAs are not accessible to the blind. Audio CAPTCHAs aren't really a good alternative - besides the speakers issue, they often contain a lot of background noise, rendering them inaccessible to some people. If you must use a CAPTCHA, rather than some other method of restricting users (Are you only using the CAPTCHA on account creation? Or anytime they log in?), text CAPTCHAs are probably the way to go.

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answered May 29, 2009 at 19:46

lavaturtle
2,671 ● 2 ● 18 ● 11