

Google's Dr. T.V. Raman Tells ATN Why Google is Involved in Web Accessibility

Dr. Raman is an accomplished research computer scientist with many years of industry experience in advanced technology development. He has authored three books and filed over 25 patents on auditory interfaces. He is an authority in web standards, auditory interfaces and scripting languages. He was instrumental in creating the Accessible Search interface at Google. The service is designed to identify sites that may have extraneous content on them and may not be ideal for screen readers to handle. Google exhibited at CSUN last week. John M. Williams interviewed him.

Williams: Why was Google exhibiting at CSUN?

Dr. Raman: We looked at this conference as an opportunity to meet our end users and for us to learn what they care about. We believe that Google's users, especially users with disabilities, have a unique experience in using the web from the comfort of their homes and the comfort of their own technologies.

Williams: What is Google doing in the accessibility field to make the web accessible to people with disabilities?

Dr. Raman: We are doing many things. We are building up a team of world-class engineers to improve the accessibility of our cutting edge products to those individuals with disabilities. Our engineers are involved in identifying accessibility issues and developing engineering solutions across a range of products such as Google search and AdWords, rich internet (AJAX) applications like Google Local, and client applications like Toolbar and Desktop Search. In addition, our engineers act as accessibility advocates to ensure Google products are built with accessibility in mind.

One of my pet projects is to increase the overall awareness of accessibility and to help the disability community find content that works well for them, so there is balance between the user finding what they want and accessibility.

As we grow our team, we are beginning to work on employing accessibility features to some of our core products. We are also working to make our products function better with screen readers. I am fairly active in defining APIs that make screen readers accessible.

Williams: What are some of the major challenges in making the web accessible to people with different disabilities?

Dr. Raman: We are definitely looking at making the web accessible to people with different disabilities. Your question is good, but also very broad. Let's give your question multiple approaches.

There are three pieces to your question that must be addressed, and they are: "the web," "accessible" and "users with disabilities." The web is the main thing. It has a lot of content.

Some of the content is accessible, and some is not. Some of it could be made more accessible by the content providers if they were more aware of accessibility.

Then you have the web, which is thought of as interactive applications. Our work is more concentrated there right now in making sure the right access to information exists so that people can actually search properly.

Finally, you have users with disabilities. One thing that we tend to forget as an industry is that we lump all users with disabilities in one large market. I believe that is a big mistake. Users with disabilities have various needs. Their ability to use the web depends on what adaptation they need. Therefore, web accessibility for people with disabilities should be understood as doing the right thing for the user.

Williams: Are you working with disability groups on accessibility issues?

Dr. Raman: When I came to Google a year and a half ago, I started working with users who could not see. One of our engineers at Google is working with the deaf community on captioning for Google Video. As we build the team with accessibility engineers, we plan to expand our outreach to include other groups who can work with us on our product development.

The reason why Google remains popular with blind people as a search tool is also the same reason that I suspect makes Google easy for senior citizens to use. Our user interface is relatively sparse and easy.

Williams: Are you working with Vinton Cerf on accessibility issues?

Dr. Raman: Vinton Cerf is supportive of our work. He knows that making the web accessible is doing the right thing for everyone. So do our engineers.

Williams: As a final question, what area would you like to have Google working on in the accessibility area that it isn't working in now?

Dr. Raman: I am doing a whole bunch of things. I do not want to point a finger and say we are not doing that. The way I think of our accessibility work is that we are making all the world's information accessible to everyone. Obviously people with special needs are included in this. However, the way I explain accessibility at Google is similar to how normal web search does a very good job on what we call the long tail of information.

There are billions of pages on the Web, of which say the top few million get looked at by lots and lots of people. The rest of the Web - aka the long tail - consists of pages that are looked at by relatively fewer people in comparison - but to each person, his/her particular portion of the long tail is important. Google Search excels at getting users to the right content, whatever their interests might be and we do very well at addressing the long tail of information.

Now, visualize the same phenomenon - but with content replaced by users - there are a vast number of Internet users. At the head you have users with no special needs; but once you move

beyond them, you get to the “long tail of users” where users have special needs that are all different. Accessibility at Google is about doing the right thing for the users in the “long tail”.

This is how I view accessibility for the user community. I believe that we are doing what we need to be doing. Certainly we can be doing more. And hopefully, what we are doing will make a difference.

Williams: Thank you.

Dr. Raman: You are welcome.