



National Center for Technology Innovation
Advancing Technology Innovations for All Students

NCTI 2007 Innovator's Conference

Session Title: Trends in Wireless and Portable Assistive Technology
Names of Presenters: Larry Goldberg, Jim Baller, Mike Calvo, Steve Jacobs
Date: Thursday, November 15, 2007

Summary

Jim Baller, Senior Principal, Baller Herbst Law Group [www.baller.com]

Jim opened the session with a discussion on Broadband progress and policy in the U.S. He highlighted the challenges that we are facing in creating the fundamental infrastructure to be competitive in the world economy:

- Affordable access to high-capacity broadband is critical to America's economic development, educational and occupational opportunity, digital inclusion, public safety and homeland security, environmental protection, global competitiveness, and quality of life;
- During the last seven years, the U.S. has dropped precipitously in international rankings in per capita broadband deployment (now 15th), data speed (now 14th), average monthly price (now 21st), and price per unit of bandwidth (now 11th); and
- Given the huge stakes involved, the U. S. urgently needs a non-partisan national broadband policy that encourages cooperation among all key stakeholders, including all levels of government, communications service providers, high technology companies, the educational community, labor, handicapped persons, the medical industry, the public safety establishment, the entertainment industry, etc. (See slide presentation file.)

Mike Calvo, CEO, Serotek Corporation [www.serotek.com]

Mike followed with a discussion of what a digital lifestyle is and how important it is to have accessibility anywhere. That is the motto of Serotek. Their strategy is system access through a screen reader. Serotek has taken the power of a conventional screen reader and merged it with an online network of services, including social networking. They will be bringing this technology to the mobile cell phone to enhance the access that users have. Their software gives users access to all services and once they have the wireless component, they will be providing people access to a full digital lifestyle. This will bring blind consumers, students and professionals into the 21st century. Facebook and MySpace are currently opening up their platforms.

Larry Goldberg, Director, National Center for Accessible Media [<http://ncam.wgbh.org/>]

Larry discussed the programs on public radio and television. There are many programs that are captioned and accessible. The National Center for Accessible Media has been involved in emergency alert systems and in working on how commercial mobile systems can be deployed in case of emergency. They have a Department of Commerce grant to work on alert systems with multimodal platforms. However, while there is much interest, making the content on the web accessible is a real challenge. So much of what is now online is being moved over to portable devices and there is no law about captioning content on the web. It is difficult to encourage or enforce quality control standards, particularly in the current climate where individuals could be encouraged to add their own captions. There has been an Internet captioning forum to address this issue and there is a great deal of interest industry wide, but there is no current agreement on any solutions. See Larry's presentation on digital captioning platforms at http://www.nationaltechcenter.org/wp-content/uploads/2007/03/Larry_Goldberg.ppt.

Steve Jacobs, President, IDEAL Group [www.ideal-group.org]



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Steve shared his work on using high-quality, fully-portable, open source, assistive technology (AT) software. This open source technology is a technological innovation that holds the potential of overturning existing dominant technologies in the market, including price reductions, enhanced support and greater flexibility. He is an OSEP Steppingstone Phase 1 grantee in conjunction with Ohio State University. His project, Access Tomorrow employs an innovative model in which open source AT software is being modified and re-packaged to execute and run off of a standard, portable, flash drive equipped with a fully-accessible talking menu. This enables users to take all of their software with them. It is currently being piloted in 8 sites. (See slide presentation file.)

Discussion:

1. *In terms of captioning, is it possible to build into speech recognition technology that would respond to a voice on video?*

Larry Goldberg: Speech recognition to do it at the level that deaf people need is 2 years away and will always be 2 years away. There are many challenges, such as good quality speech and the processing power that you need to turn it into accurate speech.

Mike Calvo: 5 years down the road is optimistic.

2. *What are the outcomes that you are looking for with the Access Tomorrow program and how many applications do you use?*

Margo Izzo, Ohio State University, on behalf of Steve Jacobs: We are looking to see if the Smart Drive teaches students with visual, hearing impairments and learning disabilities to do research on the Internet; does e-mentoring improve the writing process? For the project we are using 8 or 10 applications.

3. *What can I do about the Broadband (bandwidth) issue?*

Jim Baller: The first thing that we need to do is to come to consensus that we have a problem. You can join us in agreeing that we have a challenge. At <http://www.baller.com> there is a page with 8 steps that you can follow.

Mike Calvo: Part of what we need to do is to step back and develop goals and then come up with ways to use our resources. For example, we do have dark fiber that is not being used, but it isn't in places where we need it and it doesn't go to homes. Some fiber is restricted to academic use. What we have now are silos that do not connect and we need to figure out how to connect them.

4. *Why don't people know about open source? What is your revenue model?*

Steve Jacobs: I am not sure, but I think that business is not motivated to get the word out. A business model would be to charge a little money for the Smart Drive and channel it back to developers who agree to maintain the open source AT. Until there is money that is pushed into projects so there is a consistent development cycle, we will not really be able to move open source forward.