



“Sightings”

Of the

Wyoming Council of the Blind

March, 2017 edition

From the President

Happy New Year to All.

We have been working hard on the up-coming Convention and it is going to be a jam-packed 2 days. This years convention is “Life with the Visually Impaired.” This will be a family event, so bring your family members and friends.

We will be focusing on Safety in and out of the home. This includes first aid and communication when dealing with family members and friends. We will also have a Motivational Speaker at the convention.

Friday evening we will have a Social Hour to get to know each other. Dinner and the Auction will follow. We have some very interesting items that are new to the public and useful to all ages. We are looking for Board Members and Ideas for the growth of the organization. A complete line-up and menu will be in your registration packet.

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New Technologies Help the Visually Impaired

February was Low Vision Awareness Month so I decided to check out some now available and some new and upcoming technologies.

During Low Vision Awareness Month, the National Eye Institute (NEI), which is part of the National Institutes of Health, is highlighting some of the new technologies and tools that are currently under development to help individuals who are blind or visually impaired accomplish daily tasks easier. Here are a few of these technologies.

Cang Ye, Ph.D., of the University of Arkansas at Little Rock has developed a co-robotic cane that helps individuals with low vision or blindness navigate indoors easier by providing feedback on the user's surrounding environment. The cane has a computerized 3-D camera to "see" on behalf of the user. It has a motorized roller tip that propels the cane towards a desired location. The user speaks into a microphone and a speech recognition system interprets verbal commands and guides the user who has a wireless earpiece. The cane also has a credit card sized computer that stores preloaded floor plans. He is also working on the cane

being able to download floor plans via WI-Fi upon entering a building. The computer analyzes 3-D information in real time and alerts the user of hallways and stairs and helps the user maneuver through the building. In the process of developing the robotic cane Ye realized that closed doors posed another challenge for people with low vision and blindness. To help someone with low vision locate and grasp small objects like a door handle more quickly, he designed a fingerless glove device. The device uses a camera to detect small objects such as door handles. On the back of the glove is a camera and a speech recognition system, this enables the user to give voice commands such as "door handle", "mug" or "bottle of water". The glove guides the user's hand using tactile prompts to the desired object, like left or right, or forwards or backwards, enabling the user fabricate and grasp the object.

Both of these are very interesting and useful devices. James Coughlan, Ph.D., and his colleagues at the Smith-Kettlewell Eye Research Institute have developed a smartphone app that gives auditory prompts to help users identify the safest crossing location and stay within the crosswalk. The app uses there technologies

and triangulates them. It uses GPS to pinpoint the intersection where the user is standing. Computer vision is then used to scan the area for crosswalks and walk lights. That information is integrated with a geographic information system (GIS) database containing detailed information about the intersection, such as road construction or uneven pavement. The three technologies can compensate for each other's weaknesses. For example, the computer vision lacks the depth perception needed to detect a median in the center of the road, but that knowledge would be included in the GIS template. The GPS can get the user to an intersection but it can't identify which corner the user is standing on. The computer vision determines the corner, as well as where the user is in relation to the crosswalk, the status of the walk lights, traffic lights and the presence of vehicles. Coughlan also developed a system that helps explore objects in a natural way. The CamIO (short for camera input-output) system consists of a laptop computer and a camera and enables users to explore any 3-D or 2-D object, by holding a finger on an object which prompts the system to provide audio feedback. He plans to develop a smartphone app version of the CamIO. To watch a demonstration of the CamIO system, visit <http://bit.ly/2CamIO>.

Eli Peli, O.D., of Schepens Eye Research Institute in Boston has developed lenses constructed of many adjacent one-millimeter wide prisms that expand a persons visual field while preserving their central vision. He designed a high-powered prism, called a multiplexing prism that expands one's field of view by about 30 degrees.

He has also developed a prototype that achieves a 45 degree visual field using a periscope like concept. After it is completed he would like to work with optical labs to manufacture a prototype that can be mounted to a pair of glasses and eventually design a magnetic clip-on prototype that can be easily mounted and removed. You can view these technologies and more by researching The National Eye Institute.

Another new development is called Aira. It is an app that connects users to visual interpreting services. The user opens the app or presses a button on their glasses, which calls one of 15 trained agents. With the help of a special dashboard, an agent can see through smart glasses or a smart phone. The agent can then verbally walk the user through what's around them and

answer questions. Individuals who have used the app say that it has given them the freedom to do things they could never do with a cane alone, or even with a guide dog.

Another new technology is called ESIGHT Glasses, which are high tech glasses that let visually impaired and blind people see without surgery.

The headset has a high-speed camera that captures everything the user is looking at and the enhanced image is displayed on two screens in front of the users eyes. ESIGHT users can adjust colors, brightness and magnification and even take and store photos using an attached remote control. There are about a 1000 users at this time and it works for 4 out of 5 users.

As you can see new devices are constantly being developed and upgraded to help individuals who are blind or visually impaired.

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2016-2017
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Meet Our New Board Member

My name is Sherry Leinen. I am a Wyoming native. I grew up in Upton, but as an adult I lived in Casper, Cheyenne, Laramie and currently live in

Newcastle. I graduated from the University of Wyoming with a degree in Elementary Education with an endorsement in Middle School and an area of concentration in Early Childhood and Special Education. I taught in several preschools throughout the state, taught 3rd grade for a few years and my last position was with Head Start. For over 11 years I was a preschool teacher/home visitor for both Crook and Weston Counties. My job involved a massive amount of driving. I eventually had to quit my Head Start position when I could no longer drive.

I have been married to Dave for 35 years in November. He is an Electrician. We have two amazing kids. Our daughter Patricia is married to Jay, who is a Marine. They have three wonderful kids, Annabay age 9, Claydon age 5, and Eralynn age 4 months. They live in Maryland. Our son David was just recently married to Steph last October, they live in Florida. We love to visit them as much as possible.

My vision issues started in 2005 with a severe case of Iritis. They treated it with steroids. I had a severe reaction to the steroids which raised my eye pressure and both of my eyes had severe strokes. I now have glaucoma. I went completely blind in my right eye and lost most of my vision in my left eye, the

field of vision in it is less than 20 degrees. In 2008 I had shunts implanted in both eyes to help control the pressures. By 2011 I was no longer able to keep up with my job and had to quit.

I now keep myself busy traveling, gardening, hiking with my dog Snickers, rock hunting, and making jewelry and crafts with the rocks, antique glass, cedar-wood, and sea glass that I find.

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Fund Raising a Success

I had a fundraiser on December 20, 2016. I was titled "Homemade Goodies Sale"

It was held at the Trading Post in Riverside, Wyoming. A very special thanks to Mark Rauterkus, owner of the Trading Post.

Member Connie Hicks, who works at the Trading Post, helped me put this event together. She called her friends to ask if they would donate homemade jam, jellies, pies, candy, and what ever they could. The event was a tremendous success and we raised \$496.86.

Also, a thank you to Bigfoot Radio for putting out the word at no cost.

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Legislative Meetings

Last month I went to Cheyenne for the Legislature meetings. I had appointments with Senator Drew Perkins and Governor Matt Mead. I talked to both of them about the budget cuts that could effect things like the talking book program. They were surprised that WyCB is in Wyoming. WyCB is being heard of more and more.

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Contest for Recruiting New Members

There will be a prize given at the convention to the person with the most new recruits.

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Thank you to our Printer

I would like to thank Alan Williams at Perue Printing for all his help with the newsletter as well as providing printing and office supplies to WyCB in this part of the state.

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