

Assistive Listening Systems: Crucial For Skilled Listeners With a Hearing Loss

Judy A. Vinegar

Technical communicators are skilled listeners. Whether interviewing subject matter experts or working on teams, good communication is essential. But if you have a hearing loss, assistive listening systems (ALSs) can help.

There are 3 types of ALSs: induction loop, FM, and infrared systems. ALSs are used in various hearing situations. For large assemblies, an induction loop system is ideal because hearing aid telecoils act as receivers.

Although ALSs are astoundingly effective and sometimes required by law (ADA), they are under-utilized for several reasons: facilities do not provide ALSs, people don't know about ALSs, or they prefer not to use them.

HELP FOR HEARING LOSS

My dad and I both shared a severe sensori-neural hearing loss (my loss from a bout with Scarlet Fever at the age of 15 and his from the booming guns of WWII). We both tried many different hearing aids but found them useless in all but one-on-one conversations in quiet places. As a result, we opted to leave our hearing aids in a drawer most of the time.

I remember my dad often saying that he'd wear antennas on his head if this would help him to hear better. My dad died several years ago. I wish I could wake him up and tell him that his "antennas" are here and they are in the form of assistive listening systems. But if I could do this, I'd also have to tell him that assistive listening systems have been around for a long time—it's just that we were never told. Better not to wake him.

WHAT ARE ASSISTIVE LISTENING SYSTEMS?

Assistive listening systems (ALSs) are like miniature loud speakers that work with or without hearing aids to help you hear conversation more clearly and with less distortion from background noise. ALSs bring the sound of the human voice directly into your ear. It's like listening to music

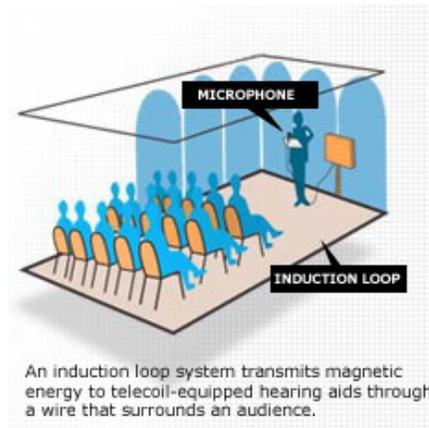
through headphones—a rich, noise-free sound. Basically, there are 3 different types of ALSs:

- Induction loop systems—that use electromagnetic energy to convey sound.
- FM systems—that use radio waves to convey sound.
- Infrared systems—that use light waves to convey sound.

ALSs are extremely versatile and can be installed in large rooms, used around a conference table, or in a one-on-one situation. The following information discusses the benefits of using an induction loop system in large assembly halls. (Figure 1)

Figure 1. Induction loop system

Courtesy of D. Myers



ALS: WHERE HAVE YOU BEEN ALL MY LIFE?

For me, finding out about ALSs was a case of pure chance. Searching for ways to make my hearing loss less of an obstacle, I picked up David Myers' book *A Quiet World: Living with Hearing Loss*. As I read through the book, I enjoyed and identified with Dr. Myers' anecdotes about the funny and frustrating aspects of living with a hearing loss.

After all, I had plenty of my own war stories due to my profound, high frequency hearing loss—like the time I gave a controversial opinion at a meeting only to see everyone stand and leave the room. “Really,” I thought to myself, “are they all that offended?” Seconds later, I realized with relief that people were filing out of the room, not because I offended them, but because they were responding to the fire alarm!

But towards the end of his book, Dr. Myers said something that made me sit up and take notice. He described his experience hearing with an induction loop assistive listening system in Scotland:

With 300 others, I was worshipping within the high stonewalls of the 800-year-old Iona Abbey. Amplified but reverberating off the Abbey’s hard surfaces, spoken words posed a challenge. Or so they did until my wife noticed a sign indicating an induction loop system— which transmits from an amplifier through a mere wire surrounding the seating area. When I switched on my telecoil, the result was dramatic. The babble of people was replaced by the sweet harmonies of musicians playing in front of microphones across the Abbey. My mouth fell open. It was like listening to a CD over a headset.

*When the service began, my astonishment increased. The leader’s words seemed to travel straight to the center of my head, her voice deliciously distinct. If I pulled the hearing aids out, her words went out of focus.*¹

Dr. Myers further explained that induction loop assistive listening systems are very common in Europe, going back well over 50 years. As he traveled through Great Britain, attending professional, social, and religious events, he found that induction loops were widely available in just about all the large events that he attended.

You may ask, “Why are induction loop systems becoming even more common in Europe while less and less common in our own country?” The answer is complicated and involves not just our

laws, but also a lack of knowledge, commitment, and unity on the part of all who share a hearing loss.

OUR LAWS: ADA

By law, ALSs should be widely available in this country. The Americans with Disabilities Act (ADA) requires that ALSs be provided “whenever audible communication is integral to the use of the space.” This means that concert and lecture halls, playhouses, movie theatres, and meeting rooms, are all required to provide permanently installed ALSs in the form of induction loop, infrared, or FM systems if the facility meets the following criteria:

1. The assembly area accommodates at least 50 persons, or if they have audio-amplification systems, and
2. The assembly area has fixed seating. (This refers to seating bolted to the floor).

The ADA Accessibility Guidelines (ADAAG) also state that the minimum number of receivers to be provided shall be equal to 4 percent of the total number of seats, but in no case less than two. Signs must also be installed to notify patrons of the availability of a listening system.²

Obviously, most facility owners are sluggish about installing an ALS because it represents a sizeable financial investment. For example, the cost of an induction loop system for a 7,400 square foot auditorium-ballroom is \$3500 plus an \$800 installation fee.³ But once installed, the basic induction loop system is virtually maintenance free. If people have hearing aids equipped with a telecoil (a small induction coil), the telecoil acts as a receiver; therefore, few receivers need be purchased or maintained by the facility.

People who use wheelchairs fought long and hard for ramps, wide bathroom doors and stalls, and curb cuts. These modifications were also not cheap, but it only seemed fair that people with mobility restrictions be granted equal access.

OUR LACK OF KNOWLEDGE

But people with hearing loss cannot advocate for ALSs if they don't know that they exist. During my many visits to hearing aid dispensers over the years, I was never told about ALSs or that the telecoil on my hearing aids could act as a receiver to pick up the sound from an installed ALS.

A recent survey showed that less than 50% of all hearing aid dispensers even mentioned the possibility of a telecoil to their clients. To make matters even worse, only about 30% to 40% of the hearing aids sold in the US include a telecoil. However, in Europe the percentage of hearing aids that include a telecoil is estimated at 85% to 90%.⁴

Once again, why is our own country selling more and more hearing aids that do not include a telecoil? The current theory is that Americans, unlike the Europeans, are much more sensitive about their appearance and prefer the smaller, in-the-ear hearing aids rather than the larger, behind-the-ear models that include a telecoil. The Americans prefer to keep their invisible handicap invisible.

Although this may be true, it is only partially true. If people with hearing loss are not told about ALSs and the importance of the telecoil, they cannot make an informed decision. I cannot help but think of my dad saying "I'd wear antennas on my head if it helped me to hear better."

OUR LACK OF COMMITMENT

Some facility managers complain that even though an ALS is installed and receivers are available for those without hearing aids or for those who have hearing aids without telecoils, the receivers are rarely checked out. Is this clearly a case of we built it, and they still won't come?

Owners of facilities should make certain that people are always aware that the system exists

and that receivers are available at the door and are in good working order. Also, owners need to recognize that just because there is not a request for a receiver that does *not* mean the ALS is not being used; if people are using their personal hearing aids with telecoils as a receiver, it's not possible to know if the system is being used or not. It is therefore imperative to make sure it is always in good working order.

It goes without saying that if few people use the ALS, less future research money will be assigned to technology that helps people hear. While discussing this with Norman Lederman, Director of Research and Development at Oval Window Audio, Mr. Lederman went so far as to say "Acceptance and use is critical for the success of ALS technology."

The Stigma of Hearing Loss

It is not surprising if people prefer not to call attention to their hearing loss by wearing headphone receivers. Self Help for Hard of Hearing People (SHHH) estimates that it takes approximately 7 years for people to accept that they have a hearing loss. Chances are good that even people who have accepted their loss will not want to advertise it in public by wearing headphones.

Why is there a stigma associated with hearing loss? Many years ago, I posed this question to Jean Rothenberg, a tireless advocate for deaf and hard of hearing individuals. Ms. Rothenberg helped establish the Cincinnati Speech and Hearing Center in Cincinnati decades ago. Ms. Rothenberg also has a severe sensori-neural hearing loss and said that the stigma surrounding hearing loss is there because the effects of the hearing loss are so misunderstood. For example, if a person with a hearing loss is having difficulty communicating with someone without a hearing loss, the person without the hearing loss begins to feel impaired or handicapped. The entire communication exchange makes both people feel

inadequate. People who are blind, on the other hand, do not make other people feel inadequate.

Also, people with an invisible handicap have difficulty understanding the effects of their own handicap. For example, hard-of-hearing persons might think that a conversation is boring but, in actuality, they are bored because they are missing parts of the conversation.

In addition, others also misunderstand the effects of the hearing loss. They see the behaviors of a person with hearing loss and erroneously guess that the hard-of-hearing person is senile, snobbish, or inattentive. And how often do you hear someone say that people in wheelchairs only walk when they want to walk?

Hearing aids cannot give a person with hearing loss normal hearing, and so the misunderstandings continue. It is universally true that society fears what it doesn't understand. And who wants to be part of a group that society fears and misunderstands?

OUR LACK OF UNITY

People with hearing loss pay a dear price to keep their handicap invisible—because invisibility goes hand in hand with powerlessness.

Audiological researcher and author Mark Ross, Ph.D., says, “without self-acceptance, no help will be sought and none will be given.” Dr. Ross further states “there are 24 million hard of hearing people in the US, but of them, only 25,000 belong to Self Help for Hard of Hearing People (SHHH), either at the state or local level.”

Dr. Ross envisions how effective SHHH could be with 100 times the number of members. He discusses the benefits of hard-of-hearing people joining together within a common interest group—similar to the American Association of Retired Persons (AARP) with its 33 million paid members. “None of the politicians or bureaucrats in our country would take any action, in any matter affecting older people, without at least

considering the response of the AARP,” says Dr. Ross.⁵

Despite the fact that SHHH is a relatively small advocacy group compared to the AARP, it is still powerfully felt. Recently in my hometown of Albuquerque, New Mexico, a decision was made to discontinue closed captioning of all programming on city-owned Channel 16, GOV-TV, to save money. SHHH and other groups sent word to the deaf and hard of hearing communities that resulted in a barrage of complaints to the Mayor's office. The decision to discontinue closed captioning was overturned.

The fallout of this decision continues. Here is an additional excerpt from the same November 2002, edition of the Albuquerque SHHH newsletter:

*Council staff is now searching for a “missing” loop system for the 9th floor Council Committee Hearing Room. The system, which included headsets to loan to hard of hearing visitors who do not have a t-coil on their hearing aids, was purchased a while ago, put in a closet and (apparently) forgotten. If located, it can be set up and made available to the folks who paid for it—the public. Hopefully signs will be posted announcing the availability of the system.*⁶

CONCLUSIONS

Like every other minority group before us, it is essential that people with hearing loss band together and make themselves visible. Ethically, if the technology is there to help people hear, it should be provided. Technical communicators are, by trade, gifted communicators. In the words of Margaret Mead, “We need every human gift and cannot afford to neglect any gift because of artificial barriers....”

REFERENCES

- (1) Myers, David. *A Quiet World: Living with Hearing Loss*. New Haven: Yale University Press, 2002.

- (2) The ADA Accessibility Guidelines (ADAAG).
“Accessible Elements and Spaces: Scope and Technical Requirements.” Section 4.1.3 (19B)
<http://www.access-board.gov/adaag/html/adaag.htm>,
accessed 1/21/2003
- (3) Myers, David and Brownson, Kathryn. “What do loop systems cost?”
http://www.hearingloop.org/fq_cost.htm,
accessed 1/21/2003
- (4) Ross, Mark. “Telecoils: The Powerful Assistance Listening Device.”
<http://hearingreview.com/articles.asp?articleid=H0209F02>, accessed 1/21/2003
- (5) Ross, Mark. “Personal and Social Identity of Hard of Hearing People.”
http://www.hearingresearch.org/Dr.Ross/personal_and_social_identity_of_.htm,
accessed 1/21/2003
- (6) Frazier, Stephen. “City almost stopped closed captioning.” *Wired for Sound*. December 2002.

Judy A. Vinegar
Technical Writer
PO Box 1398
Albuquerque, NM 87043

(505) 771-9063
jvinegar@myranch.com

Judy Vinegar has a degree in Technical Communication and is a member of the STC and of the Society's Special Needs SIG. Judy is also an RN, BSN, who for many years specialized in rehabilitating injured workers. She is a member of SHHH and is interested in workplace accommodations and assistive listening systems for people with hearing loss.