

### Hearing Loops and Telecoils: When will they become obsolete?

The International Hearing Access Committee (IHAC) aims to estimate the time a transition from the existing audio transmission to telecoils via hearing loop (HL) and other assistive listening systems (ALS) to a platform of digital audio streaming direct into hearing aids, will likely take.

Telecoils (TC) are small copper wire coils integrated in most hearing aids (HA), HA accessories and cochlear implants (CI) in use today. The TC is designed to pick up electromagnetic analog signals from telephones and from HL/ALS which are designed to improve communication access for people with hearing loss<sup>1</sup> in venues where distance, reverberation and background noise prevent comprehension.

Telecoils have important advantages for hearing aid and cochlear implant users such as:

- Ease of use by people of all ages.
- Availability in nearly all hearing devices.
- Affordability (no cost to users beyond the price of the hearing aid).
- Energy efficiency (little or no battery drain).
- Universality, any TC can connect to any ALS. No matter their brand of HA or brand of ALS.
- Very low latency, which is important in real-time events.

However, TCs have only 1 channel (no stereo), and are sensitive to electromagnetic interferences.

IHAC recognizes that since 2014 the European Hearing Instrument Manufacturers Association (EHIMA) has taken serious steps to get a hearing aid profile (HAP) as a standard for Bluetooth connectivity.<sup>2</sup> This will ultimately permit direct streaming of high-quality stereo audio signals into HA/CI. EHIMA admits this process is taking longer than expected.

Consumer organizations (International Federation of Hard of Hearing People, the Hearing Loss Association of America and the European Federation of Hard of Hearing) while excited about what the future will bring, are concerned that premature announcements will discourage research in TCs and lead to HL/ALS neglect and abandonment well before such a new technology is fully matured and carefully evaluated by end users.

While an accurate time estimate of a worldwide transition from an analog to a digital audio streaming system cannot currently be made, it is reasonable to believe that TC, HL/ALS usage will continue for the next 10-15 years and beyond.

HA/CI users require continued quality hearing access in public places which is currently, and in the foreseeable future, provided by TC and HL/ALS. The rights of HA/CI users to access must be continued and maintained during this period of technological change and shall not be compromised by the promise and overly optimistic expectations of a future technology development.

#### *References:*

1: [www.access-board.gov/research/completed-research/large-area-assistive-listening-systems/1-introduction](http://www.access-board.gov/research/completed-research/large-area-assistive-listening-systems/1-introduction)

2: <https://hearinghealthmatters.org/hearingnewswatch/2014/hearing-industry-seeks-new-wireless-standard-hearing-aids-t-coil-advocates-say-fast/>