

Providing a welcoming and safe environment for Deaf and hard of hearing individuals through use of technology and environmental adaptation

Jonathan O'Dell

Massachusetts Commission for the Deaf and Hard of Hearing

Objective

The purpose of this presentation is to explore ways in which technology and environmental adaptation can lead to a de facto enhancement in the accessibility of programmatic and environmental services for domestic violence survivors.

Disclaimer

There are many manufacturers offering products that have the same end-user “result”. Inclusion or exclusion of a manufacturer or product in/from this presentation should not be construed as an endorsement or lack thereof on the part of MCDHH.

Environmental Basics

- There are several key factors to consider when looking at any environment from a perspective of a Deaf or hard of hearing individual. These include but are not limited to:
 - Physical accessibility to the environment
 - The presence of directional and informational signage
 - The amount, orientation, quality and manageability of existing light sources.
 - The amount and nature of existing ambient noise and whether it can be removed or reduced. Are there carpets on the floor?

- The presence (or absence) of unobstructed lines of sight, from a programmatic (individual to individual within a group communication setting), architectural (columns, walls, doors, windows) and design (room dividers, placement of desks and furniture, design of office and living space) standpoint.
- Presence or absence of visual alerting systems to alert Deaf and hard of hearing individuals of immediate dangers such as fire, carbon monoxide, building evacuation or lockdown, unauthorized entry and more, in a multiplicity of sleep/wake/activity modes. It is NOT enough to simply follow the law.

- Wall and carpet coloring/texture/design. Fabric and wallpaper patterns can present visually distracting backdrops to someone dependent on visual communication.
- Visually quiet areas. Are there windows, glass doors, high traffic areas in the same area where visual conversations are likely to take place?

Programmatic Features of Communication Access

- Automatic provision of ASL interpreter, CART provider, listening devices for Deaf ASL users, late deafened and hard of hearing people, respectively.
- Captioning and interpretation for all multimedia content or materials – DVD, web, television, movies.
- Optimal room setup to accommodate face to face and direct-line-of-sight communication between participants.

- Communication policy enforced that sets forth best communication access practices:
 - Speaker identification
 - Taking turns
 - Waiting to be called on by moderator or discussion leader
 - Waiting for CART provider/interpreter to catch up with speaker
 - No side conversations or interruptions
 - Respect for and inclusion of different communication preferences

- Visual communication is more draining than auditory communication. Allow for frequent breaks. Stress, fatigue and anxiety reduce a person's ability to focus; this significantly impacts visual communication.
- A TTY call takes five times as long as a spoken call. A relay call, even longer. If there is a time limit on phone calls it needs to be extended or waived for someone using a TTY and relay.

- Be sure that shelter budget includes separate line item for communication access, i.e. payment for ASL interpreters, CART providers, and purchase of listening systems and other adaptive or alerting equipment

Design Features of Communication Access

- Locate high-traffic shared resources and locations such as copiers, fax machines, lunch and laundry rooms etc. away from meeting rooms or individual rooms to minimize ambient noise and possible electromagnetic interference with hearing aid telecoils.
- When installing energy efficient lighting fixtures, be aware that some electronic ballasts can interfere with hearing aids and cochlear implants.

- Provide visual and tactile doorbell alerts in individual rooms to foster a sense of privacy, independence and inviolate personal space
- Provide visual, audible and tactile fire and carbon monoxide alerting systems in rooms where deaf, hard of hearing and late deafened individuals may sleep, as well as visual and audible alerts in common areas such as dining rooms, shared rest rooms, meeting rooms and hallways.

- Provide closed captioning capability on all televisions; set the closed caption feature to be “on” by default not just in individual rooms (if provided) but in common rooms as well.
- Have a television listening system in place
- Have a TTY in place for Deaf individuals; an amplified telephone for hard of hearing individuals
- Consider providing a VideoPhone for Deaf ASL users.
- Provide sensitivity training for all staff and volunteers on how to best work with Deaf, hard of hearing and late deafened individuals

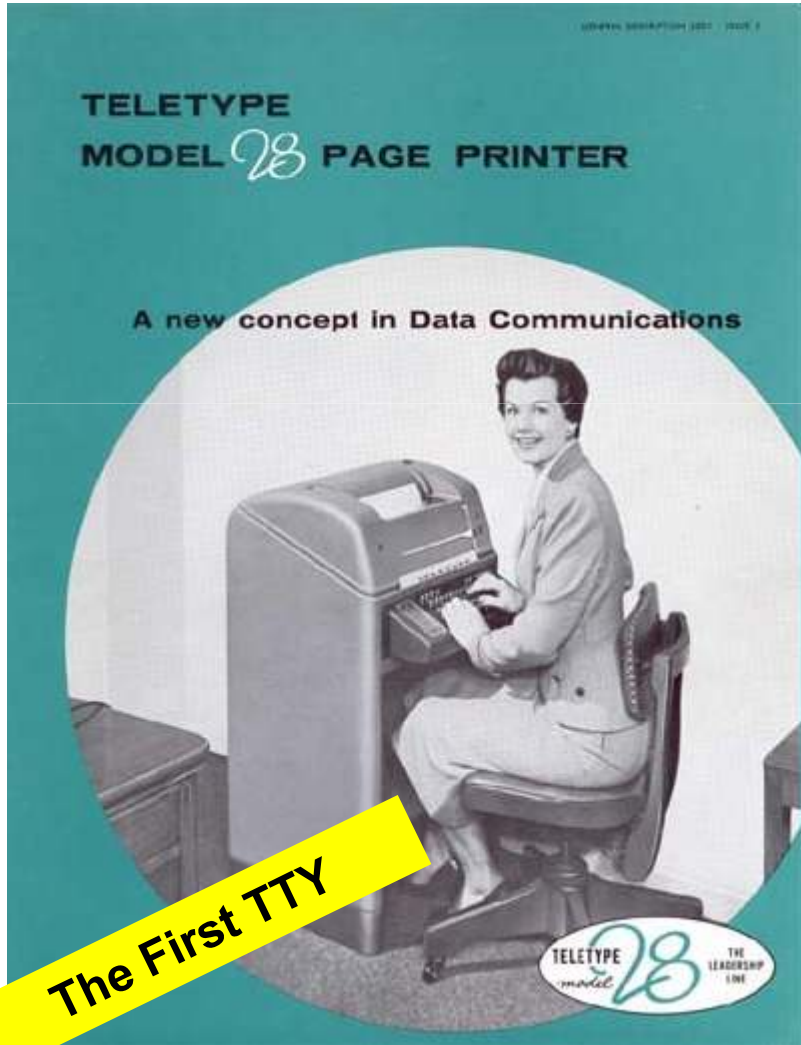
- Deaf and hard of hearing people cannot use cell phones to communicate. For someone who cannot hear, a Smartphone featuring a QWERTY integrated or virtual keyboard and an email application is an ideal mobile solution that allows them to be independent.
- It is important to communicate to a Deaf person the risks that are associated with using such a phone, since these are generally more advanced and may feature GPS tracking and location services.

- There are a variety of visitor alert and entry/intrusion detection systems on the market. Most feature magnetic contact sensors, others feature pressure mats and still others use motion detectors. All will send signals to receivers that will flash strobes and lights, activate bed shakers and tactile pagers, and some will even activate a loud horn or siren or can be tied into a home monitoring system.

Resources

- Technology changes rapidly, as do ways of using it; it can be very hard to stay current. If you need assistance with implementing technology appropriate to your shelters and services, call your state's lead agency for Deaf and Hard of hearing services before contacting any vendor.
- You can find a list of state by state resources by going to the [National Association for the Deaf](#) website.

Technological Solutions



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Telecommunications

Relay Service

= Access ?

Examples of current telecommunication technology used by Deaf individuals



The OJO
videophone

The CSD VRS "Z"
150 standalone
videophone



The Sorenson
VP-200
videophone
(requires display)



The D-Link
i2eye
Videophone

Examples of newer telecommunication technology used by Deaf individuals



↑ The VPAD: A touch-screen, WiFi-based, cordless portable VideoPhone, already available



↑ Live Communication in Sign Language between cell phones, already in use in Europe

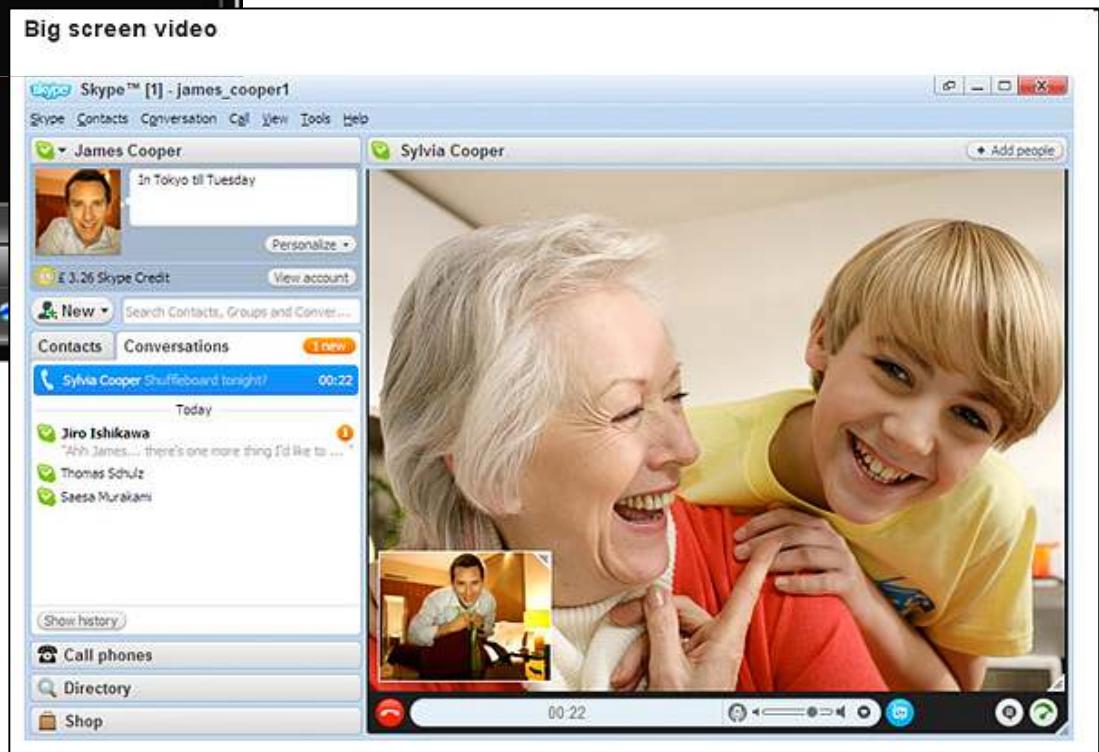


← The CSD Z 350: A WiFi-based, cordless, ultra-portable VideoPhone, already available

Voice Over Internet Protocol (VOIP) Solutions

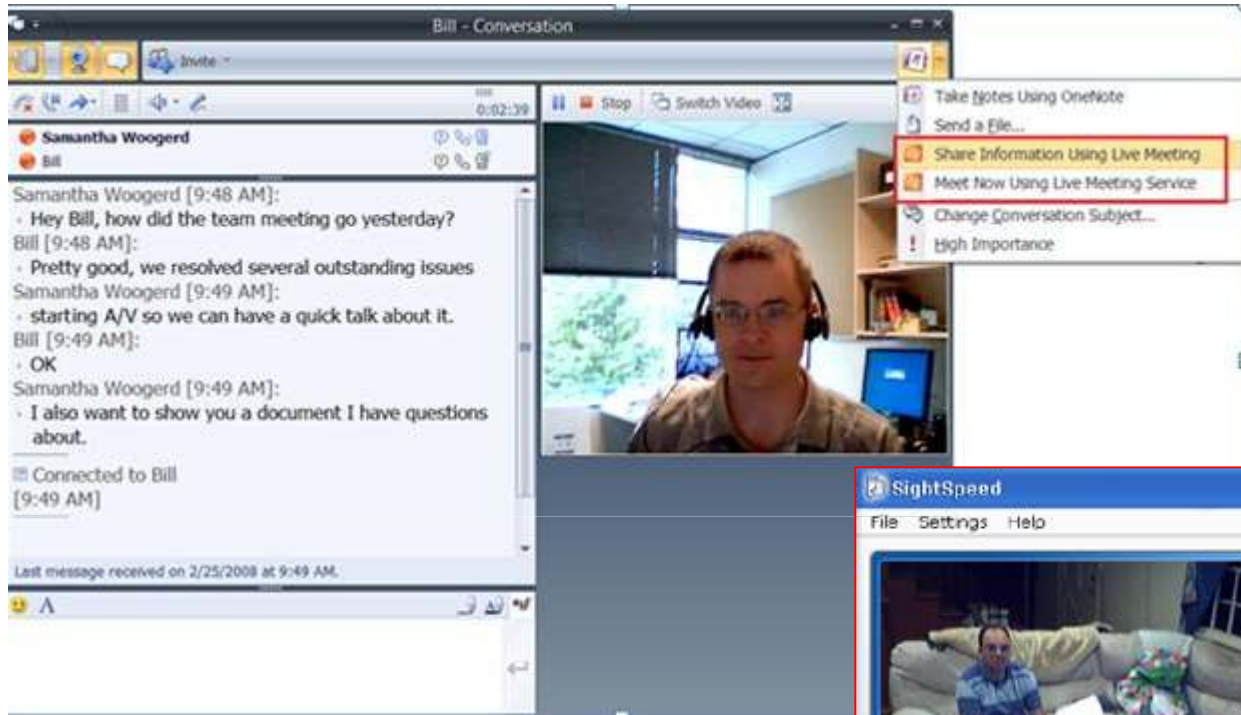


[Skype](#) Screen Shot



[OOVOO](#) Screen Shot

Voice Over Internet Protocol (VOIP) Solutions



[Microsoft Live Meeting](#) Screen Shot



→
[Sightspeed](#) Screen Shot

Examples of conventional telecommunications technology used by hard of hearing people



Examples of current telecommunication technology used by hard of hearing individuals



The OJO videophone



D-Link 12eye



Skype



Ultratec CapTel



HATIS

Other telecommunication options for hard of hearing and late deafened persons

[CLARITY Speakerphone](#)



Amplified Bluetooth
Neckloop



[GN Netcom
Amplified Headset](#)



A Fax Machine

Wireless text-based communication



BlackBerry Storm



Apple iPhone 3G



T-Mobile Sidekick



Google G1

Assistive Listening Devices



Television Accessibility



Motorola Cable Box



HDMI cable



HDTV YPbPr Component Video Cable



Converter Box

Television Accessibility



**Infrared TV Listening
systems**



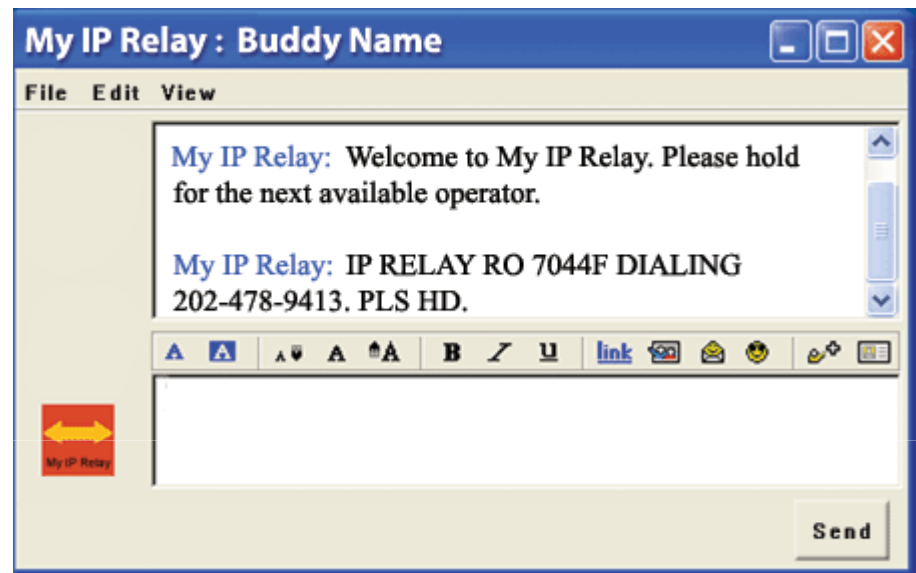
Environmental Alerting Devices



Fire and Carbon Monoxide



Telecommunication Relay Service, Video Relay Service, and Internet Protocol Relay



Video relay user signs to the interpreter

Interpreter speaks to the phone user



- If you have questions, comments, suggestions or feedback of any kind, please feel free to email me at:

Jonathan.Odell@MassMail.state.ma.us

Thank you for attending this presentation!