



Hearing Loss and Assistive Technology

Maryland Technology Assistance Program
in collaboration with

The IMAGE Center

MARYLAND DEPARTMENT
OF DISABILITIES

What's it Like...

Hear the World

<https://www.youtube.com/watch?v=it4ZjKQ2WMQ>

(Better World Foundation)

Hearing Loss Numbers

- ❖ In the US – 30 million or 12.7% of our population age 12+ experience significant hearing loss
- ❖ The prevalence of hearing loss increases with age
 - 2 out of every 100 children
 - 1 out of 14 people under age 65
 - 40% of people 65-84
 - 2 out of 3 people 85+

Hard-of-hearing, deaf, Deaf, late-deafened...

What's the difference?

It's personal

It's a choice

It depends....on your
perspective



<https://www.youtube.com/watch?v=eBoIOr0HZUY&t=26s>

Deaf

The uppercase “D” in Deaf refers to people who share a common language, American Sign Language (ASL), and participate in the rich and diverse culture rooted in that language. American Sign Language is considered the native language of Deaf people.

deaf

A lower case “d” in deaf refers to the audiological condition of having hearing loss. It’s usually severe enough that the individual cannot function without some kind of support such as hearing aids, lip-reading and other assistive technology. This group usually identifies with hearing people and their native language is usually English.

Late-deafened

This term identifies people who later in life, after acquiring oral communication skills, become completely deaf. They may become fluent signers or may choose to use speechreading. They may use cochlear implants or hearing aids.

Hard-of-Hearing

Ranges from:

Mild to moderate

Moderate to Severe

Severe to profound – (deaf)

And, is usually a mixture, hearing some sounds better than others.

Untreated Hearing Loss

- Is considered a public health epidemic in the US
- Approximately 48 million in the US with serious hearing loss
- 28.8 million Americans could benefit from hearing aids

BUT DON'T

Why You Should be Concerned



Current research suggests a correlation between untreated hearing loss, cognitive decline, dementia, Alzheimer's, mental acuity, increased risk of falls, isolation, depression, and



quality of life

Impact of Hearing Loss

Hearing loss has been shown to negatively impact nearly every dimension of the human experience including: physical health, emotional and mental health, perceptions of mental acuity, social skills, family relationships and self-esteem, not to mention work and school.



Even a mild hearing loss can cause a child to miss 50% of classroom discussion

(hearingloss.org Hearing Loss Association of America)

Assistive Listening Devices

Personal Sound Amplification Devices



Typical Hearing
Loss Help
Hearing Aids



Hearing Aid Users

- ❖ 9/10 mild loss – no hearing aids
- ❖ 6/10 with moderate to severe – no hearing aids
- ❖ 70% age 64-84 – don't use them

“My hearing is not that bad...”

<https://www.starkey.com/hearing-loss-simulator/simulator>

Why??



Affordability \$1000 -
\$6000 per aid



Access – difficult to
find where to get
service



Stigma



Don't recognize
somethings wrong



May feel nothing can
be done - aging

Tips for talking to someone with hearing loss

- Get their attention
- Lighting
- Frame the topic
- Use rules of clear speech
- Use chunking
- Say it in a different way
- Repeat what was heard and ask for the rest
- Clarify, was that B as in boy or D as in dog?
- Fingerspell

Some Solutions

- ❖ Over-the-counter Hearing Aid Law
- ❖ Medicare – House Bill HR 3
- ❖ Medicaid – 2018 expansion
- ❖ MD Assistive Technology Loan Program
(<http://mdod.maryland.gov/mdtap/Pages/MDTAP-Home.aspx>)

Assistive Listening Devices (ALDs)

- ❖ **Looping systems**

<https://www.hearingloss.org/hearing-help/technology/hat/hearing-loop-technology/>

- ❖ **Hearing Loss Association of America**

hearingloss.org

- ❖ **Greater Baltimore chapter of HLAA**

ALDs, Hearing Aids and CIs

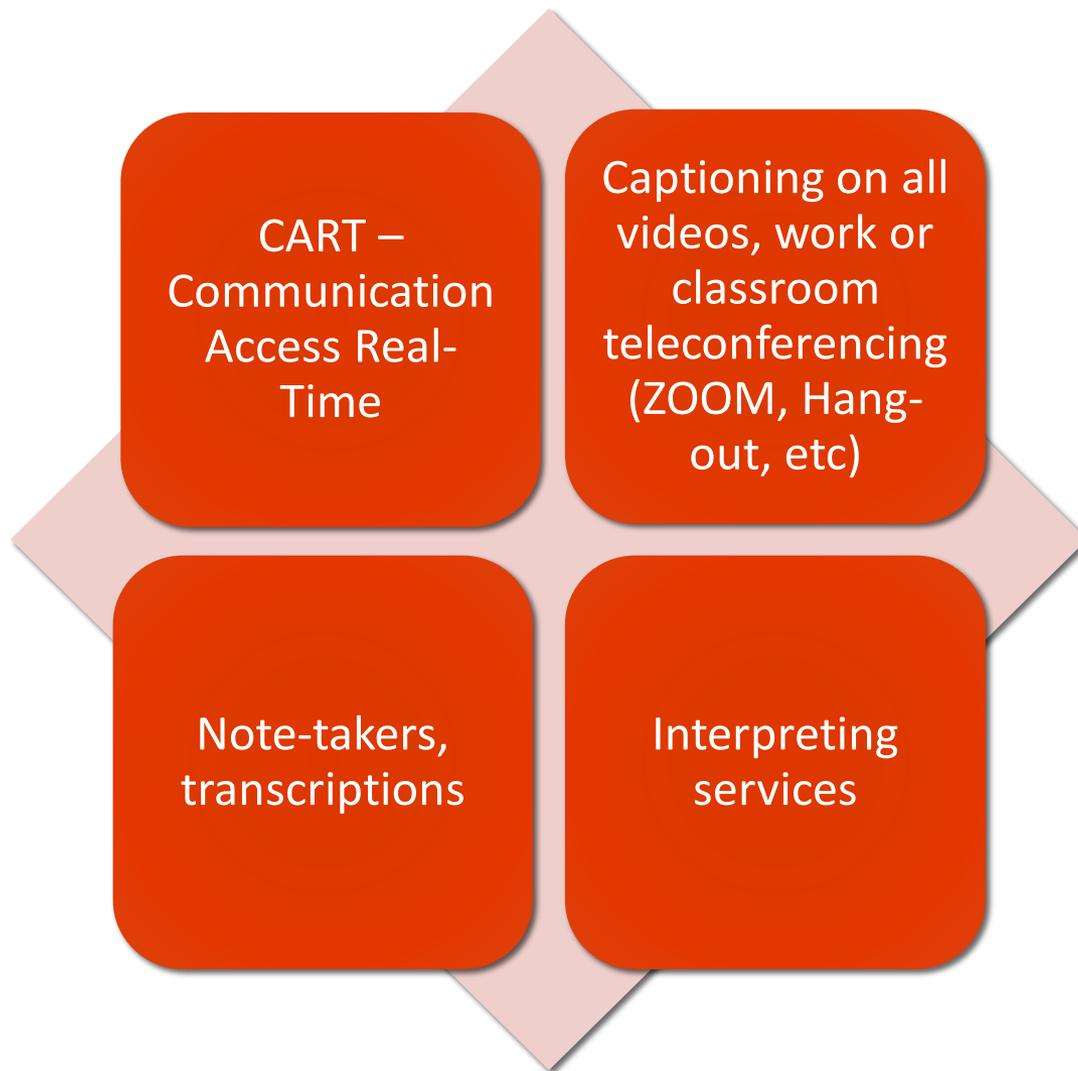
Roger Pens



Oticon Streamer



Other ADA accommodations





Alerting Devices - Smoke Detectors

HOMEAWARE + SMOKE/CO ALERT



PHONE



DOOR



SMOKE/CO



Doors, phones, babies

RESOURCES

- ❖ Harris Communication - <https://www.harriscomm.com/>
- ❖ Teltex - <https://teltex.com/>
- ❖ AMAZON



Cell Phones as Assistive Listening Technology

Next generation phones

Google Pixel 4a

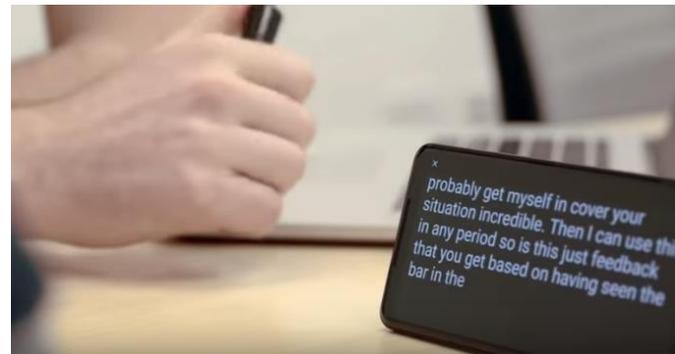
- Caption any audio
- Live Transcribe
- Live Caption
- Sound amplifier
- Google Recorder



Cell Phones and Assistive Technology

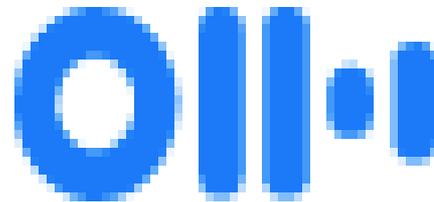
[https://www.
android.com
/accessibility
/live-
transcribe/](https://www.android.com/accessibility/live-transcribe/)

Live Transcribe



Otter a.i.

- ❖ Record
- ❖ Transcribe
- ❖ Send



Google Recorder

- ❖ Does not need wi-fi or cell tower service to work
- ❖ Records audio
- ❖ Real-time transcribes to viewable notes
- ❖ Can be saved, searched and sent to others
- ❖ Is currently exclusive to the Pixel 3a and 4a phones





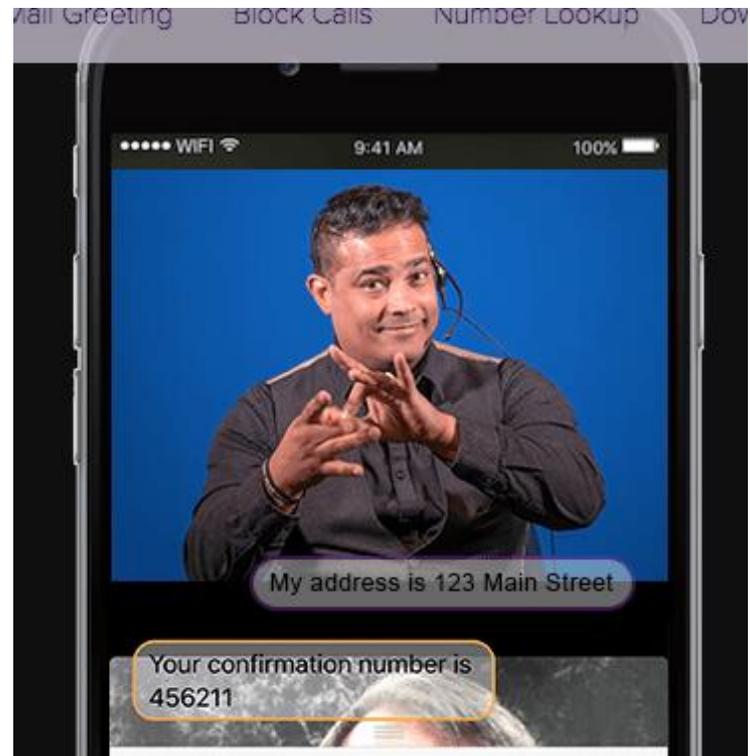
Sound Amplifier

Google LLC Communication

E Everyone

i This app is compatible with your device.

Sound Amplifier

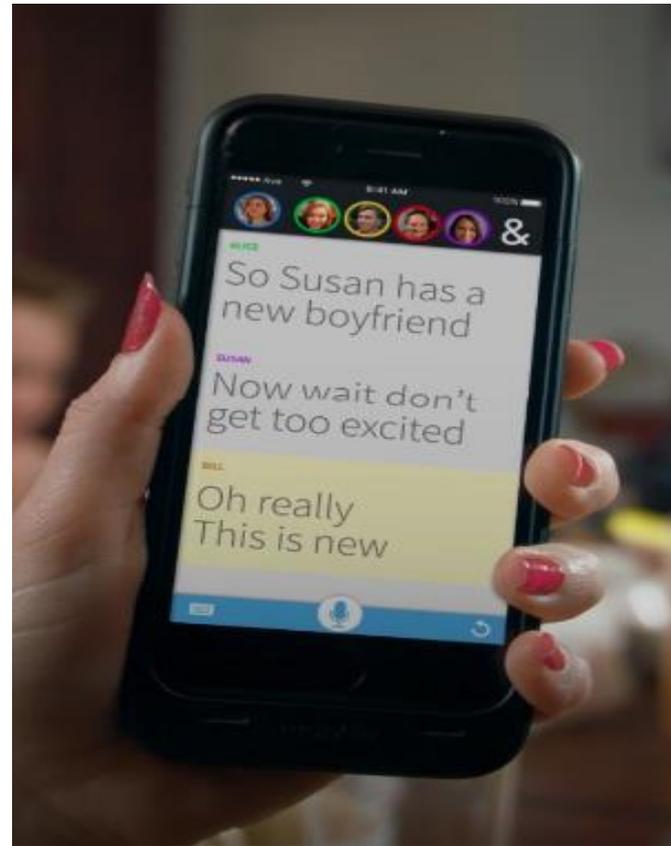


Videophone technology

AVA & ME

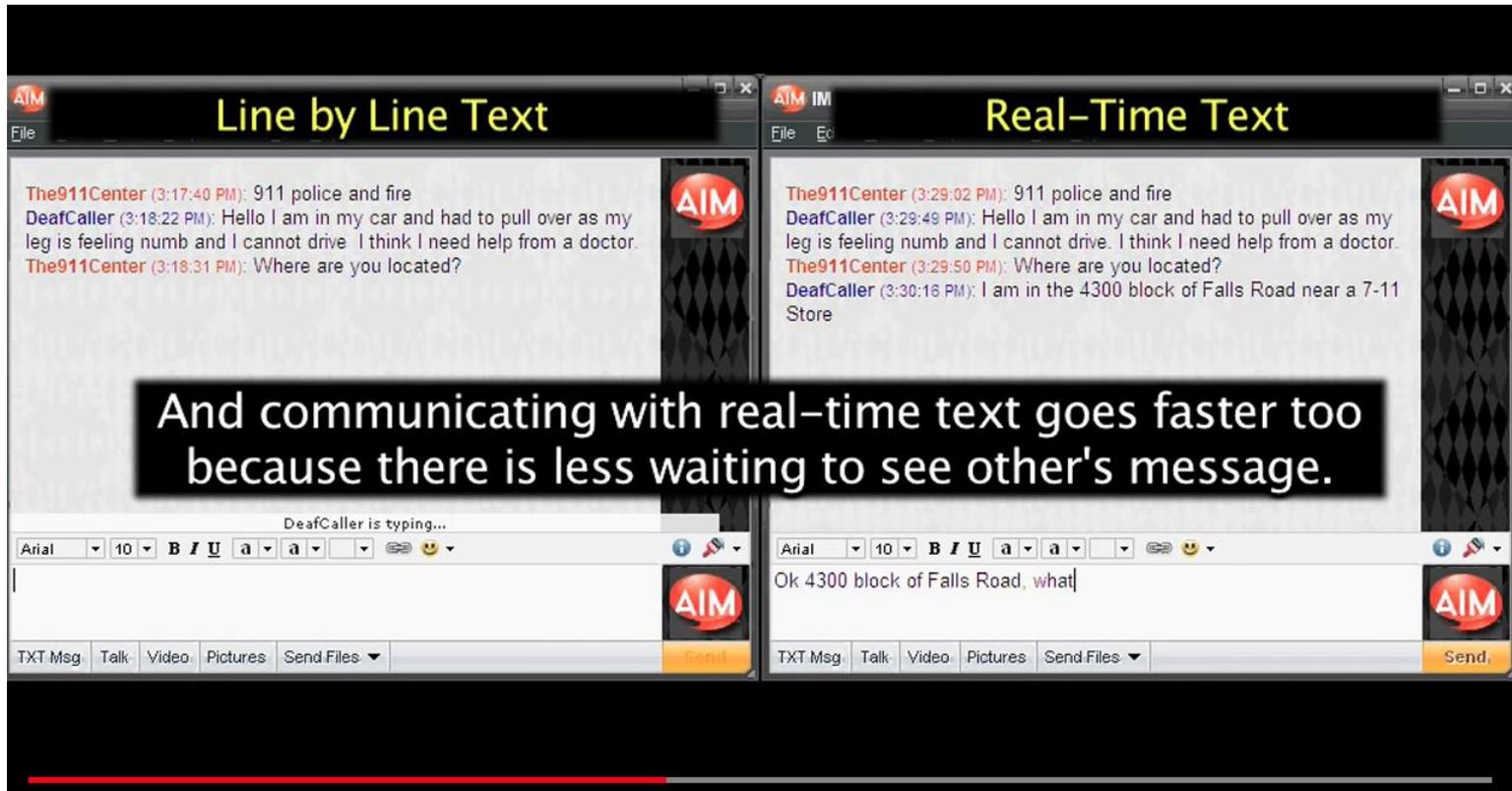
- ❖ Speech to text
- ❖ Join by android or iphone
- ❖ Free for up to 5 hrs per month
- ❖ Access tool for classrooms
- ❖ Pricing for institutions

<https://www.ava.me/>



Real-Time Text

<https://www.youtube.com/watch?v=o803T4-RgHI>



Captioning on
cell phones

CapTel[®] Captioned Telephone.

CaptionCall[®]

ClearCaptions.

Hamilton CapTel[®]

InnoCaption.

Sprint CapTel[®]



The Maryland Accessible Telecommunications (MAT) Program

The Telecommunication Access Maryland Program
www.mdrelay.org/mat.program1@Maryland.gov

MD AT Info Everywhere

[Where It's AT](#) – Our award-winning AT Blog



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Maryland Centers for Independent Living

IMAGE Center for People with Disabilities

Serving Baltimore and Harford Counties, (410) 982-6311

<https://imagemd.org/>

Accessible Resources for Independence

Serving Anne Arundel and Howard Counties, (443) 713-3914

<http://arinow.org/>

Centers....

Bay Area Center for Independent Living**

**Worcester, Wicomico, Somerset, Talbot, Kent, Caroline and Cecil
Counties (443) 260-0822**

<https://www.shoregivesmore.org/bayareacil>

Independence Now

Montgomery and Prince George's Counties, (301) 277-2839

<http://www.innow.org>

Resources for Independence

Allegany, Garrett and Washington Counties, (301) 784-1774

<http://www.rficil.org>

Southern Maryland Center for Independence**

Charles, Calvert, St. Mary's (301) 884-4498

<http://www.smcil.org>

The Freedom Center

Frederick and Carroll Counties (301) 846-7811

<https://www.thefreedomcenter-md.org/>

[HTTPS://WWW.ILRU.ORG/PROJECTS/CIL-NET/CIL-CENTER-AND-ASSOCIATION-DIRECTORY-RESULTS/MD](https://www.ilru.org/projects/cil-net/cil-center-and-association-directory-results/md)

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