

# Science and Technology for Disabled Person

V.ANANTHA KRISHNAN M.Sc.,M.Phil

HOD

DEPARTMENT OF INFORMATION TECHNOLOGY  
ARUMUGAM PILLAI SEETHAI AMMAL COLLEGE  
TIRUPPATTUR – 630211

Mobile No : 9443442304

**1,000,000,000**

More than **1 billion persons** in the world have some form of disability. This corresponds to about 15% of the world's population.

## Disabled Population by Type of Disability India : 2011

| Type of Disability Persons | Males             | Females           | Total             |
|----------------------------|-------------------|-------------------|-------------------|
| In Seeing                  | 2,638,516         | 2,393,947         | 5,032,463         |
| In Hearing                 | 2,677,544         | 2,393,463         | 5,071,007         |
| In Speech                  | 1,122,896         | 875,639           | 1,998,535         |
| In Movement                | 3,370,374         | 2,066,230         | 5,436,604         |
| Mental Retardation         | 870,708           | 634,916           | 1,505,624         |
| Mental Illness             | 415,732           | 307,094           | 722,826           |
| Any Other                  | 2,727,828         | 2,199,183         | 4,927,011         |
| Multiple Disability        | 1,162,604         | 953,883           | 2,116,487         |
| <b>Total</b>               | <b>14,986,202</b> | <b>11,824,355</b> | <b>26,810,557</b> |

## Dot

Dot is a wearable that is also the world's first **Braille smartwatch**. Dot is a practical solution that is more affordable than regular e-Braille devices which may cost thousands, yet still works well for the blind. Dot helps the blind access messages, tweets, even books anywhere and at any time.

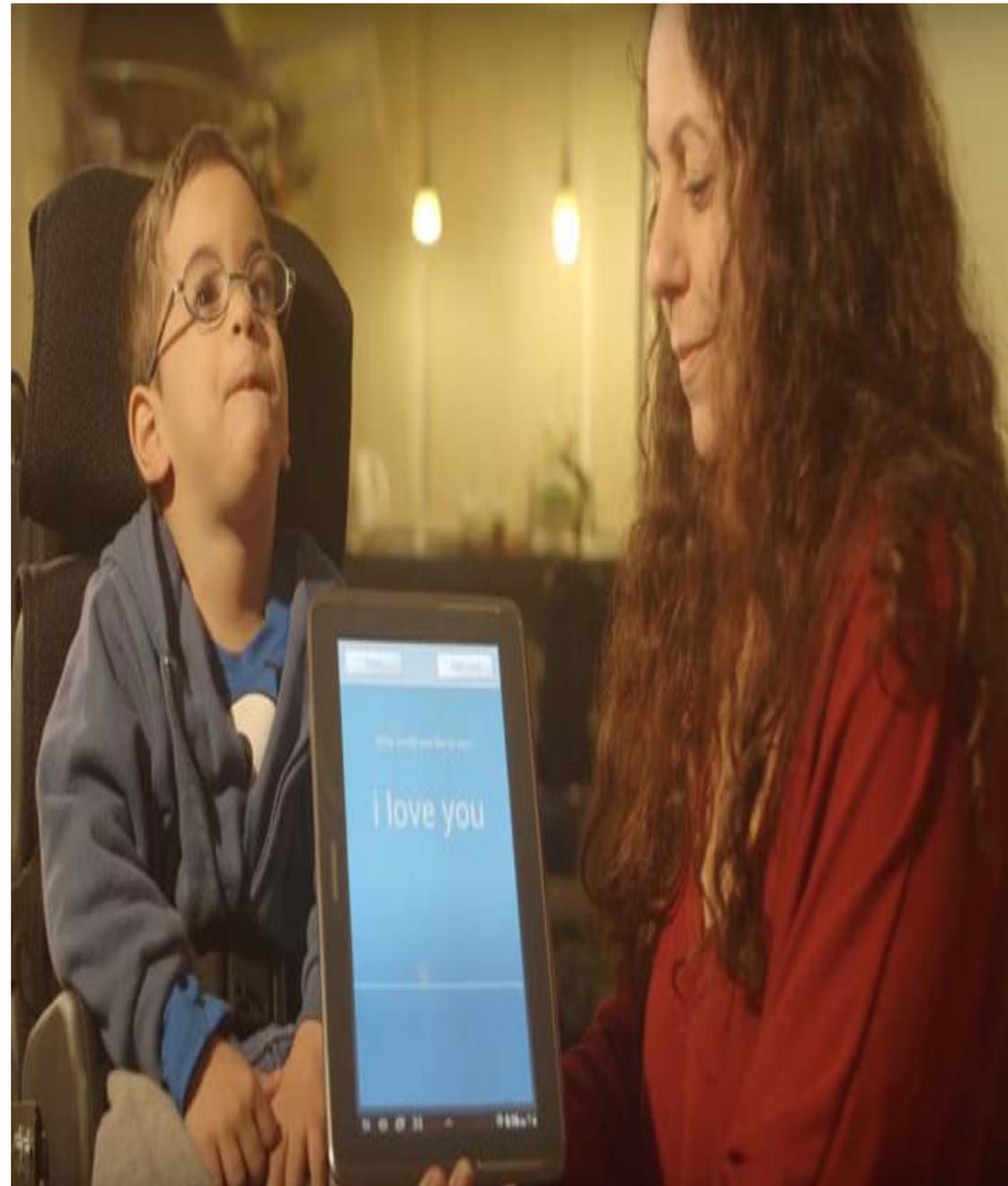
Technically, this tool functions with six dots on four cells found on the surface of the smartwatch. These dots will rise or lower to form 4 letters in Braille at any time.



## Talkitt

Talkitt is an innovative application to help people with speech and language disorders to communicate with someone else.

Talkitt works in any language: it works by learning the user's pattern speeches first, creating a personal speech dictionary; then Talkitt will identify and recognize the unintelligible pronunciation and translate them into speech we can understand.



**UNI** :UNI is a **two-way communication tool for the deaf using** gesture and speech technology. This tool works by **detecting hand and finger gestures** with its specialized camera algorithm, then converting it to the text in very short time to provide meaning of a given sign language.

Also equipped is a voice recognition software that will convert speech into text for two-way communication. UNI also enables you to create your own sign language.



**Finger Reader** :Finger Reader is a wearable tool to help read text. It has two functions: to help the visually impaired read printed text on a book or on an electronic device, and also to be used as a language translation tool. A user can wear this device on a finger, then point it on a body of text, one line at a time. The small camera on the Finger Reader will scan the text and give real-time audio feedback of the words it detects. It also notifies the reader via vibrations when it is at the start of a line, end of a line, moving to a new line or when the user is moving too far away from the text baseline.





# transcense

Making group conversations between Deaf and hearing, possible.





EVERYTHING near brooklyn

+ ADD FILTERS



★★★★★



**APPLEBEE'S**

1360 Fulton St



★★★★★



☆☆☆☆☆

**+ ADD REVIEW**



**DUNKIN' DONUTS**

1309 Fulton St

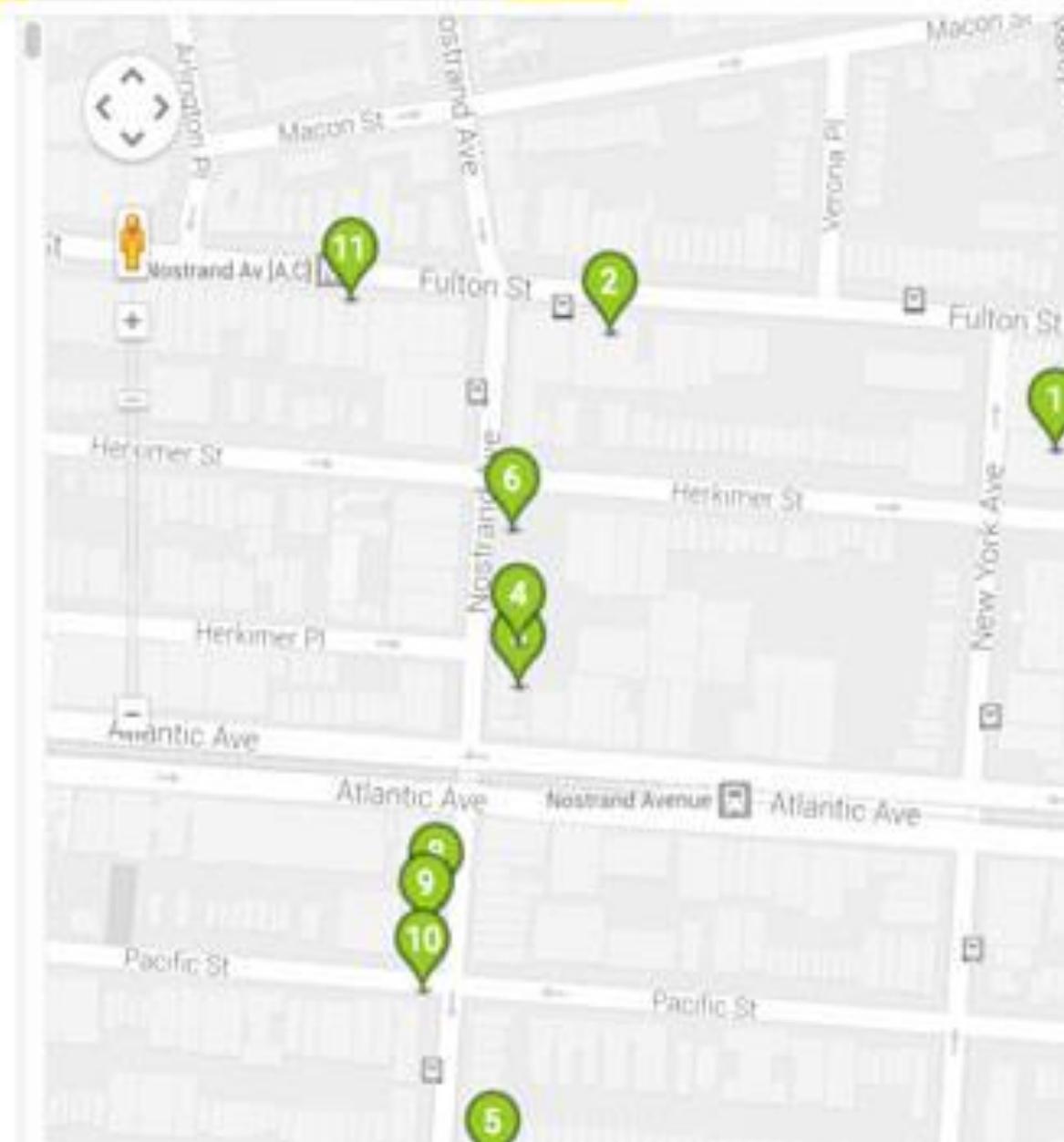


★★★★★



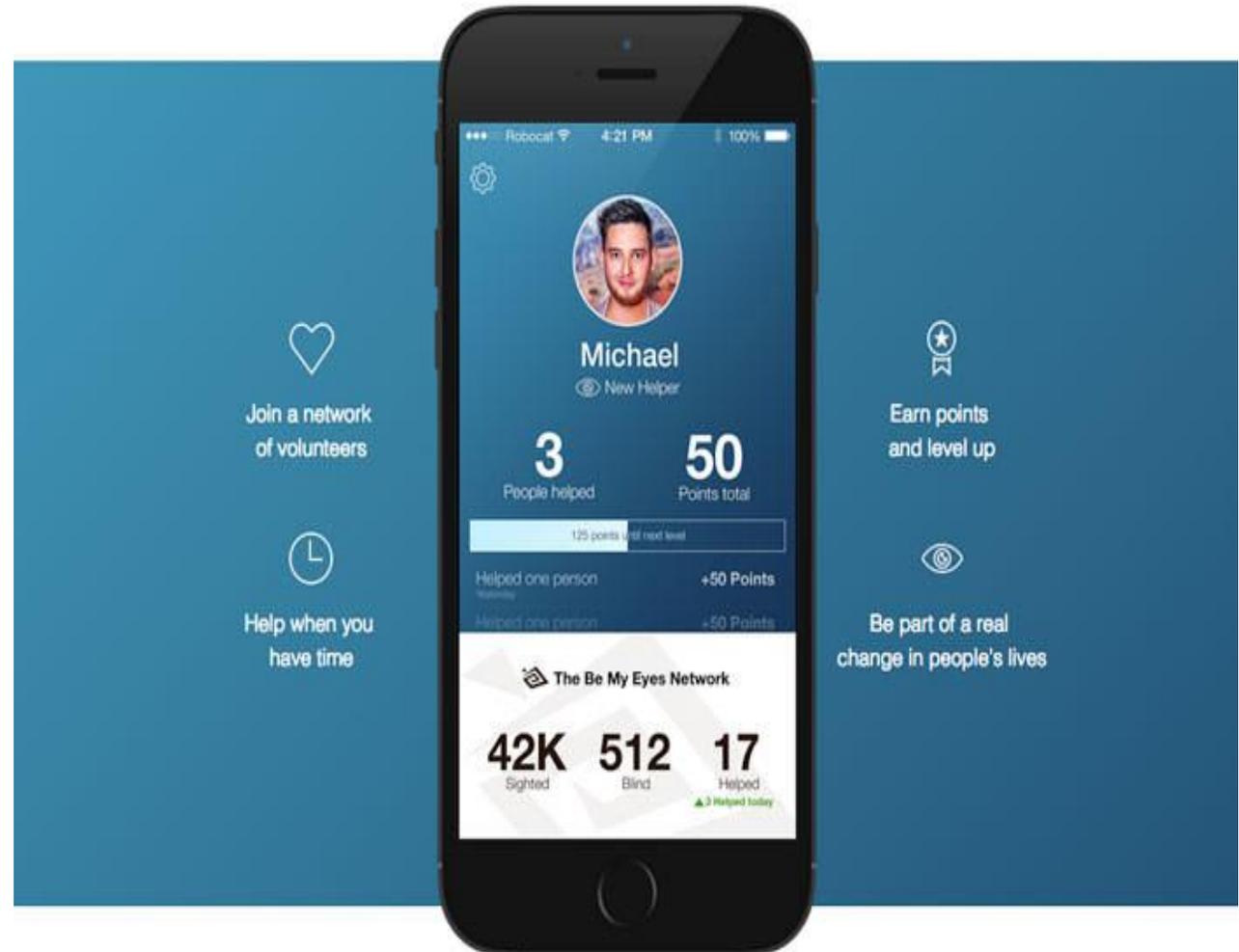
☆☆☆☆☆

**+ ADD REVIEW**



**Be My Eyes** is a super-cool application that helps blind people “see” the world. It works by making a network that connects the blind with volunteers from around the world. It is an easy way to ask for help for simple tasks like checking on the expiry date on a milk carton.

Volunteers will receive notifications or requests for help, **and if they are too busy, the app can find someone else to step in and help.** Each request will trigger a video call to volunteers so they can help the user.



## Liftware

Liftware is a self-stabilizing handle on which you can attach an eating utensil like a fork or spoon. It is very helpful for patients who suffer from Parkinson's disease or other forms of motion disorders that causes hand tremors. Liftware stabilizes disruption and helps reduce the spilling of contents from the utensil before food reaches the patient's mouth.



Some use full Link

Electronic Walking Stick for Blind People ♦ School Project

<https://www.youtube.com/watch?v=4TVY17DRUzA>

Robotic walking aid for the visually impaired

[https://www.youtube.com/watch?v=Bx\\_WkcoTmvl&t=150s](https://www.youtube.com/watch?v=Bx_WkcoTmvl&t=150s)

How to make six legged robot

<https://www.youtube.com/watch?v=nBy2W23qlAM>

How to make a Robot Toy using proximity sensor and old CD

<https://www.youtube.com/watch?v=2c4DJ8YY2qc>

HOW TO MAKE A SIMPLE ELECTRIC CAR USING HOUSEHOLD ITEMS!

<https://www.youtube.com/watch?v=6ahEWC-HGAY>

How To Make a Simple Homopolar Motor

<https://www.youtube.com/watch?v=voHz6sxxwQ2Q>

Simplest Electric Train

<https://www.youtube.com/watch?v=J9b0J29OzAU>

Liftware Level is a new robotic device designed to help people with limited hand and arm mobility

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