

October,2021



Edition 67

Editor 's Desk

Dear friends,

This quote caught my attention so simple but hits it straight, so I thought its worth sharing.

“For people without disabilities, technology makes life easier. For people with disabilities, technology makes things possible. “

- IBM Training Manual

Regards

Bhavna Botta

<http://www.connectspecial.in/>

Innovative Ideas

Mouseware- Hands-Free Access to computer and smart phones by Dextroware Devices

As part of the new normal, we live in a digital world with most of our lives and careers based on computers. Digital devices have closed the gap between urban and rural populations and have made the job market accessible to every demographic. Every person has the right to access such technological tools to strive towards better career opportunities. However, Persons with Disabilities (PwDs), especially many people with upper limb amputations or those who don't have control over their hands & fingers find it very challenging to interact with computers.

Out of the 40,000 people, who lose their upper limbs (hands), 85% live without any assistive aids due to the prohibitively high costs of such arm prosthetics. Also, these aids pose several challenges ergonomically in interacting with computers or any digital device.

Inaccessibility to digital devices is not only limited to amputations but also due to various neurological

disorders like Carpal Tunnel Syndrome, Parkinson's disease, Cerebral palsy, hand fractures, and so on.

Not just people with permanent disability, even the other people meeting with accidents and suddenly from that moment, that person is completely cut-off from technology and unable to rejoin their job. Limited medical and paid leave at the workplace adds up a level to this challenge, forcing them to settle for some low-paying jobs less than their capability.

” That's why we came up with a SINGLE solution that has the capability to solve these problems. A Head-wearable device that enables hands-free operation of Computers & Smartphones with simple head movements. All the user needs to do is to wear our Headgear and rotate their head to the direction the mouse cursor has to be moved. So your head movement is synchronous with the cursor on the screen. This same device can also be used to operate smartphones, tablets & smart TVs. The best part is, we are not going to confine the user to wear it in a single method. They can wear it as a cap or spectacles or headset or head strap. The mouse click is performed by multiple accessible switches like foot switch, finger switch, universal switch, etc. and the user is free to

choose any accessory depending on their comfort. We enable voice typing through a powerful Speech to Text engine that includes most English accents and regional languages. The user can also execute voice commands that can be customized to perform tasks or open applications” says Pravin Kumar, Chief Executive Officer, Dextroware Devices.



Picture description -A man wearing Mouseware above his ears on his head and accessing computer

This kind of assistive tech is not well known in India due to many barriers. We researched multiple factors and found a way to overcome most of the issues. For example, a vital component of computer usage: Typing, was not addressed by other players developing a similar solution. We address it by including a voice typing feature along with customized voice commands. Also, there was no SINGLE INTEGRATED solution to operate all smart devices. Another vital barrier was the cost-effectiveness of such an Assistive Tech.

Other players are providing a similar solution at a price range between Rs.45,000 & Rs.1 Lakh. But, **Dextroware Devices** mission is to make it affordable. Hence, the price of Mouseware is capped at Rs.15,000.

www.dextrowaredevices.com

Inclusive Ideas

Android accessibility update lets you control your phone, communicate using facial gestures

Originally featured at [Access and Inclusion through Technology](#)

<http://www.accessandinclusion.news/>

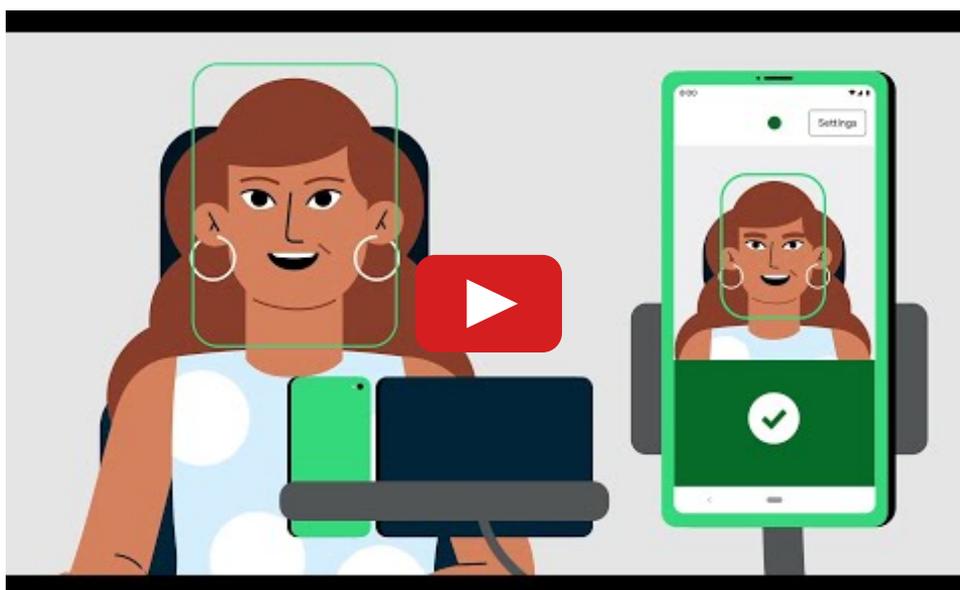
<https://www.cnet.com/tech/mobile/android-accessibility-update-lets-you-control-your-phone-communicate-using-facial-gestures/>

The new features, called Camera Switches and Project Activate, let users navigate their devices without their hands or voice. Google is rolling out a few new accessibility features for Android users, including the ability to control your phone and communicate using facial gestures. The first update, called Camera switches which detects facial gestures using your phone's camera. Users can choose from six gestures -- look right, look left, look up, smile, raise eyebrows or open your mouth -- to navigate their phone. They can also assign gestures to carry out tasks like open notifications, go back to the home screen or pause gesture detection. The new feature can be used

alongside physical switches

Camera Switches also allows users or their caregiver to choose how long to hold a gesture and how big it needs to be for the phone to detect it. To use the feature, open your phone's settings, select Accessibility, and then tap Switch Access (under Interaction Controls). Turn it on and grant permissions.

Additionally, a new Android app called Project Activate lets people use those same facial gestures from Camera Switches to activate customized actions using a single gesture, like saying a preset phrase, sending a text and making a phone call.



Project Activate can trigger customized actions on your phone, including sending messages, playing audio files and speaking short phrases.

eSight

Although portions of the eyes are damaged or not working, those who are legally blind do retain limited sight, often concentrated in their peripheral vision. eSight heightens the function of the parts of the eye that are still working to compensate for the parts that aren't. The head-mounted display houses a small camera that captures everything the wearer is looking at in live video footage. The device's algorithms enhance the footage before displaying it on two high-resolution screens, in real time.

Through eSight's remote control, a built-in trackpad on the side of the headset, you can make adjustments (a boost in brightness, higher contrast, or increased sharpness) to enhance the quality of the image you're seeing. One feature, the "biopic tilt," lets users adjust the device, flipping it up or down to move between enhanced and "natural" vision (to make eye contact).

The device also allows you to tap into the display of smartphone so you can stream content from your phone or TV directly to the screen in front of your eyes.

<https://esighteyewear.com/>

BlindSquare

BlindSquare is the world's most widely used accessible GPS-app developed for the blind, deaf blind and partially sighted. Paired with third-party navigation apps, BlindSquare's self-voicing app delivers detailed points of interest and intersections for safe, reliable travel both outside and inside. After determining your location, BlindSquare gathers information about your surroundings on Foursquare and OpenStreetMap. Interestingly, the Algorithms determine what information is most useful to you such as popular cafes, post offices or libraries. Navigation is simple just shake your device to hear your current address and details about the nearest intersection and venues around you and periodically announce the distance and direction you're headed.

<https://www.blindsquare.com/>

<https://apps.apple.com/app/blindsquare/id500557255>

To share log on to <http://www.connectspecial.in>

To subscribe ,to give feed back botta.bhavna@gmail.com