

Voice controlled devices have a powerful role to play in bringing Assistive Technology to mainstream public use. Although their functions are similar and overlap simultaneously they are different as well. For instance the Amazon Echo Dot coming from a media platform in Amazon is better at dealing with things like audiobooks and finding out skills you can use your device with. By contrast Google coming from a system operating system background is better at doing tasks like making a phone call, which the Echo Dot is not as good at (though using Skype you can do similar things. Both devices control smart appliances but this area has not been investigated yet.

In order to do a comparison between the devices I have laid out my findings in a question and answer format using tables for easy comparison. My conclusion is that both devices might be needed in certain circumstances eg for the totally blind. I am looking at both devices from the point of view of disability and how accessible they are. And I am always learning new things so this will be a growing resource as more is discovered. I have also included the TV control devices – for Google Home Mini the Chromecast device and for Amazon Echo Dot the Firestick TV device. So here is my comparison:-

1. How easy is it to setup the devices?

Google Home Mini	Amazon Echo Dot
Very easy and within 5 mins, the setup procedure is led by a free app – <i>Google Home</i>	Can be problematical to get the wifi connected. Runs through a procedure of connecting to wifi through the devices own wifi. Also needs a free app called <i>Amazon Alexa</i> (avoid <i>Setup for Amazon Alexa</i>)
Once connected the device is ready to use straight away	Once connected the device is ready for use and you can start collecting skills to use.

2. How extensive is the range of things you can do?

Google Home Mini	Amazon Echo Dot
Claims to have a million uses but hard to find out but essentially you can find out information and play media	Skills are clearly listed on a website and on the free app.
No listing on a website	Alexa.amazon.co.uk gives a mirror of the alexa device and you can add or delete skills from there

3. Are the things you can do free?

Google Home Mini	Amazon Echo Dot
Yes, apart from media streaming music and tv	Yes apart from media streaming music and tv. If you have Amazon Prime your music streaming is part of that, otherwise you have to pay extra for each device connected!

4. What about streaming TV?

Google Home Mini	Amazon Echo Dot
You need an additional device called Google Chromecast (£30) to “cast” to your TV. Setup is easy through the device and app <i>Google Home</i>	You need an additional device called an Amazon FireStick TV (£39.99).
Despite the blurb so far it has a limited range of entertainment channels to use	Wide range of channels to use which is being extended all the time. Easier to find programmes

5. How accessible for the blind is the streaming TV?

Google Home Mini	Amazon Echo Dot
Voice control works from the device	Press mike on the remote which won't be possible for those with fine motor skill problems as the button is small. You can set up the Amazon Echo to respond and playback audio through your Echo but if you have two devices switching between the two is difficult
No remote device to press , easier to operate with your voice, no accessibility options available. Have to run the service and make accessible changes there and then play.	Built in Accessibility options will read back the main menu. VoiceView speaks on-screen text out loud as you navigate menu options and settings on your Amazon Fire TV.High contrast text for partially sighted. Screen magnification available
Subtitles and Audio description from the services. Best to search for “Audio Description for English” and see what programmes listed have that	Subtitles and Audio can be set by pressing the menu button but there are range of tools available than just subtitles For more details go to:- https://www.amazon.co.uk/gp/help/customer/display.html?nodeId=202105050

6. Can you make phone calls?

Google Home Mini	Amazon Echo Dot
Yes, claims to be free in the UK to landlines and mobiles. Uses VOIP and Google Contacts and so it does seem to be free and a big advantage over the Amazon	Yes, but free to other amazon app users. So get your friend to download the app. Landline and mobiles with Skype which incurs cost . The lowest being unlimited minutes for £2.40 a month for landlines only. 400 minutes limited on landlines and mobiles cost about £6.00 approx. monthly Amazon promised a device called an Echo Connect but it hasn't materialised yet!

7. Can you email?

Google Home Mini	Amazon Echo Dot
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Lists "Email to <name>" but have not been able to get this to work yet.	No. There is no skill for this and shows that a media platform like Amazon struggles with this. The only way is to send a short shopping list to up to 20 people using http://iftt.com workaround.
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8. How much are the various devices needed?

Google Home Mini £29.00	Amazon Echo Dot £29.99
Chromecast £30	Fire Stick TV £39.99
TOTAL: £59.00	TOTAL: £ 69.98

9. What Smart Home Devices do they support?

Google Home Mini	Amazon Echo Dot
Plugs, lights, heating systems, cameras (for security)	Plugs, lights, heating systems, cameras (for security)
Due to expense these have not been tried or tested yet	Due to expense these have not been tried or tested yet

9. Which is the best system for accessibility and function and why?

Google Home Mini	Amazon Echo Dot
Best voice control for streaming tv without hand use	Best navigational system for accessibility if you have hand function
For making FREE phone calls	For playing media like audiobooks from Kindle
Not easy to find out what other uses you can do. Needs a better way to search for things	Easier to find skills to use but the quality of the skills and uses are varied.
Use for controlling tv and phone calls if you are totally blind and have no hand function	Use for music and controlling TV if you have hand function and partial sight