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Speaking TV Programming Guides; Would they help people with visual impairments, and are they feasible?

Sense welcomes the opportunity to respond to this Ofcom consultation regarding speaking TV programming guides. Everyday technologies such as televisions and their content remain an essential source of information and entertainment for many people with dual sensory impairment. Sense estimates the number of deafblind people in the UK in 2010 was around 250,000; 222,000 were aged over 70 years and 33,000 were between the age of 20-69, and 4,000 estimated to be children (0-19 years). Living in an aging population where these figures are expected to increase substantially means that the subsequent demand for accessible technology and content will rise. Customisable functionality (being able to select your preferred font size and style, font and background colour and the position of text/content) of services and devices is essential to truly optimize accessibility for all. In a recent Sense report “Usher Information and Research Survey: The Findings”¹, 18% of those with Usher Syndrome taking part in the research wanted more information on customisation of smart TV functionality.

Sense

Sense is the leading national charity that supports and campaigns for children and adults who are dual sensory impaired (deafblind). We provide expert advice and information as well as specialist services to dual sensory impaired people, their families, carers and the professionals who work with them. In addition, Sense supports people who have sensory impairments with additional disabilities.

Dual Sensory Impairment

Dual sensory impairment (DSI) is a combination of both sight and hearing difficulties and refers to all levels and combinations of hearing and visual impairment. People can be born with DSI, or acquire impairment due to genetic or hereditary conditions, through illness, accident or in older age and commonly have difficulties with accessing information, communication and moving around their environments.

¹ Y Tadesse (2013): Usher Information and Research Survey. Sense.

Q1. Do respondents agree with Ofcom's initial assessment that apps for mobile devices have the potential to be useful for those people with visual impairments who feel confident using touch-screen technology and can afford a suitable mobile device? If not, why not?

Sense agrees that apps for mobile devices do have the potential to be useful for those with single (visual) and dual sensory impairment who feel confident using touch-screen technology, who can afford to purchase them and who are able to access the device and app content either visually (despite low vision) or by other means such as text to speech (TTS).

Apps that are designed with accessibility in mind and are compatible with functionality such as TTS mean that those with dual sensory loss can navigate more easily and effectively. Apps that are flexible and allow the user to alter the formatting options according to their preferences meet the varying needs that people with DSI have. For those with acquired loss i.e. age related impairment, whose hearing and vision may continue to deteriorate or change with time, customisation is essential to allow them to continue to access services and devices that they are familiar with and wish to continue using.

There is however a significant proportion of the population with DSI that are not confident with touch screen devices and/or are not able to afford to use them. While some higher specification mobile devices have accessibility features like TTS and voice navigation, and offer compatibility with braille devices there is an increase financial cost associated with them. According to Ofcom's Disabled consumers' ownership of communications services: A Consumer Experience report² those with hearing/visual impairment are less likely to own a smartphone 22% in comparison to the 48% of the non-disabled population and only 7% own a tablet in comparison to 17% respectively.

Q2. Do respondents agree with Ofcom's initial assessment that apps for mobile devices are less likely to meet the needs of the majority of visually-impaired people who are 65 or older, both because they are less likely either to own a suitable mobile phone and because touch-screen apps present a number of actual and perceived barriers to use. If not, why not?

Research shows that the numbers of older people accessing the internet are increasing, for example Ofcom reported³ an increase of 42% of those over 65 years of age accessing the web in 2013, driven by the use of tablet devices. However Sense does agree with Ofcom's initial assessment that apps and mobile devices are less likely to meet the needs of those older than 65 years with single (visual) or dual sensory impairment because they are less likely to own (as confirmed by the figures quoted in Q1) and use touch screen devices.

Older people with DSI that do use mobile devices often utilise touch screen devices by using specialist interfaces such as 'Synaptic' or 'Mindings', software that has been specifically designed with the older person in mind that aim to improve their ability to navigate and use the device. However while these specialist interfaces help the user to access and complete certain functionality such as writing a text message, they do not easily allow a person to exit the application and make

² http://stakeholders.ofcom.org.uk/binaries/research/telecoms-research/disabled/Disabled_consumers_report.pdf

³ <http://media.ofcom.org.uk/news/2014/tablets-help-drive-increase-in-older-people-going-online/>

use of other apps or device functions, consequently people find it even harder to use the standard interface successfully as they are less familiar with it.

While some older dual sensory impaired people use mobile touch screen devices, the majority currently do not. In addition to the figures provided in Q1 by Ofcom, Action on Hearing Loss⁴ also suggest that the numbers of those owning and using smartphones and tablets declines as age increases for those that have difficulties with hearing, vision, mobility or dexterity.

Q3. Do respondents consider that it would be reasonable for visually-impaired viewers to pay more than sighted viewers for the ability to use EPGs or substitutes for the same purposes as sighted viewers? If so, why?

“No, this would seem unreasonable to me. The technology has moved forward a lot in recent years so the costs of making an EPG accessible would surely not be such that this extra cost has to be passed on to users. Furthermore, I’m aware of TVs where this technology has already been integrated.”⁵

Sense does not consider it reasonable for single and dual sensory impaired consumers to pay more for the use of speaking EPG’s or substitutes to provide an equivalent service as sighted viewers. According to Ofcom² people with multiple impairments which includes those with hearing and vision loss are the less “likely to be working: 8% compared with the average of 17% for disabled people overall.” In addition to this older people who are more likely to make use of or need speaking EPG’s are of a non-working age having retired. Therefore the income for these groups is far lower than traditional sighted viewers.

Features that enable better EPG accessibility to those with single and dual sensory impairment often benefit others in society, for example being able to select the font and background colours may assist those with colour blindness while TTS functionality may offer better accessibility for those with dyslexia. There are many technologies now available with built in accessibility features that do not require additional purchasing as it is recognised that they increase the usability for many. Television hardware has become more accessible in recent years with Panasonic launching Voice Guidance and Samsung with Voice and Gesture control built into their television units. Given that manufacturers offer this type of accessibility as standard, people with dual sensory impairment should not be expected to pay more to access such functionality from alternative hardware or providers.

Q4. Do respondents agree with Ofcom’s initial assessment that the speaking EPGs integrated into TVs and set top boxes may be easier for people with visual impairments to use than touch-screen apps? If not, why not?

“Yes I believe this would be the case, though an individual’s personal circumstances will dictate how they wish to access their information. I currently use a Freeview set-top box with speech capability, allowing me to access the EPG and it is very easy to use. I am able to

⁴ L Matthews (2014) Action on Hearing Loss

⁵ A Deafblind person asked to comment for the purposes of this response

access the EPG as well as the library of programmes I've recorded. The speech output is clear and it can be slowed down or speeded up as required.”⁵

Dual sensory impairment is unique to each individual and as such their needs and personal preferences for technology will be different. Those already using or willing to learn to use touch screen devices may prefer to access programming guides through apps while others that prefer not to use or are unable to use touch screen devices may prefer speaking EPG's integrated into TV's and set top boxes.

Receiving information can be much more time consuming for those with dual impairment and as a result can significantly increase fatigue. Devices that fail to meet the individual's needs such as electronic programming guides that are visually hard to read and navigate due to poor accessible design i.e. cluttered, small font type and poor colour contrast further increase the difficulty and fatigue, reducing the person's ability to receive this information at all. Similarly speaking EPG's must also meet the needs of the user, offering the information at appropriate speeds (not too fast or too slow), pitch or volume is equally restricting. The solution to this is to ensure that systems offer good quality customisation, allowing the person to choose the settings that best suit their needs and preferences. One deafblind person has commented that his Panasonic set top box (purchased 3 years ago but no longer in production) offers all the adjustable functionality that he requires and is far superior in comparison to cheaper less capable options available.

Regardless of whether the device is a mobile touch screen, TV or set top box the audible output of the speaking EPG should be compatible with other technologies used by those with hearing or dual sensory loss. These include FM, Infra Red, Telecoil loop systems and Bluetooth streaming products used with or without hearing aids. Such technologies allow the person with hearing/dual impairment better quality access to the audible output of the television reducing distortion and distance, significantly improving the ability to hear despite the hearing loss therefore compatibility is essential.

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