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RNIB Beauty and the Beast Test Screening with MovieReading app Report 2017

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1. Executive summary

In order to gather feedback from audio description (AD) users on the issue of using an app to receive AD in cinemas, a test screening of Beauty and the Beast was organised at the Odeon Cinema in Haymarket, London. Thirty-eight cinema goers who use AD regularly were recruited to attend this test screening with their family and friends.

The main objective was to give potential end users and their companions an opportunity to try the Moviereading app.

The overall feedback on the user experience of the app was reported as highly positive and the end user comments (included in the report) clearly reflect that if such a service was made available post the trial, most people are likely to use it. Therefore, we believe that this result, gives us a strong basis for a long term, possibly six-month, trial of the app giving many more people across the country the flexibility to the app a few times and feedback.

2. Introduction

2.1 Audio description in UK Cinemas

Audio description (AD) is an additional commentary in a film or television programme describing body language, facial expressions and action. It gives blind and partially sighted people information about the on-screen action enabling them to follow what is happening. It takes away the dependence of relying on someone else to fill in the gaps and therefore, AD is relied upon by blind and partially sighted people in the same manner as subtitles are relied upon by deaf and hard of hearing people.

In the UK, AD is delivered at every cinema screening provided it has been produced for the film's theatrical release and it has been scheduled in a screen that is installed with an infrared transmission system. The infrared headphones are used to deliver AD to the people who need it and only people wearing the headphones can hear the description track. The headphones also allow the viewer to vary sound levels of the description track as and when needed.

All major UK film distributors aim to ensure that all of their titles are accessible to cinema-goers with hearing or sight loss and in the past few years, all top 50 box office titles have included access tracks at the time of the release. This includes subtitles and audio description.

Every week around 450 cinemas nationwide, including almost all multiplex cinemas, deliver between 1,200 and 1,500 accessible, English-language subtitled shows, specifically for customers with hearing loss. Most also provide audio described shows. Around 50 UK cinema studios provide a regular 'accessible' service.
(Source: Yourlocalcinema report on cinema access statistics 2015).

Still, there are a number of cinemas that mainly for financial reasons are unable to provide AD equipment and therefore fail to make use of the access tracks that distributors provide. A large number of AD users who visit the cinema that deliver AD also complain about the AD headsets not working, the film not being scheduled in a screen that supports the delivery of AD and sometimes, shows wrongly advertised as available with description.

Therefore, a smartphone app that syncs the AD track with a film playing in cinemas presents an opportunity to offer greater independence to regular users of AD in cinemas. Blind and partially sighted people who use AD in cinemas and connected devices such as Smartphones/ Tablets would be free to choose when and where they want to watch a film and not depend only on those sites that deliver AD. This puts them at par with sighted audiences who can make a choice depending on which cinema they would like to visit or is convenient.

2.2 Smartphone usage

As the Moviereading app and other such services that allow synchronisation of AD require the use of connected devices, it is crucial to establish their usage level among the sight loss community which is the potential market for this development.

In accordance with RNIB's My Voice 2015 research, out of the 1200 registered blind and partially sighted people interviewed, one in three felt able to make the most of new technology. However this was closely

linked to age: 86 per cent of 18–29 year olds said that they could make the most of new technology, compared to 25 per cent of people aged 75 and over. There was a significant generational divide in the use of computers, the internet and smartphones, with a particularly low level of technology usage among people aged 75 years and over. The majority of people who do not currently use technology would like to use it if obstacles were removed.

As with computer and internet, usage of smartphones and/or tablets was linked to age. Only 16 per cent of those aged 18–29 years did not use a smartphone or tablet. This increased with each age band, with 84 per cent of people aged 75 and over not using such devices.

Therefore such a service would not only improve access to films today for those who are connected but it would go a long way in future proofing the delivery of AD in cinemas as connected handheld devices i.e., smartphones and tablets further integrate with our daily lives.

2.3 MovieReading App by Universal Media Access

The test screening was carried out in partnership with the Universal Media Access Team and their existing app, MovieReading. This app is currently available to cinema goers in Italy and Brazil. Users can choose to access captions or audio description depending on their requirement.

In order to use the app, users are required to download the audio description (AD) tracks onto their Smartphones or tablets. They can subsequently play the tracks when watching the media content and the app will synchronise the two audio tracks. The microphones embedded within the handheld devices - Smartphones and tablets listens to the soundtrack of the film, identifies the exact point in the asset and then plays the downloaded AD track in sync with the original soundtrack.

In 2015, RNIB undertook a successful three month trial of the MovieReading app for using while watching video on demand services in particular Netflix, NOW TV, iTunes, and Google Play. It was part of a wider audio description app project that proposes to list key outcomes on the various aspects of introducing such an app in the wider market. The key outcomes would include to:

assess customer take-up and user experience of the app based delivery system;
assess the operational impact of this new style of delivery for content owners and service providers;

Overall, the app was very well-received and there was significant demand from participants, requesting that this technology be made available for use in UK cinemas.

3. Cinema trial screening

3.1 Test screening

In order to understand the views and opinions of AD users on the issue of using an app to receive AD in cinemas, a test screening of Beauty and the Beast was organised at the Odeon Cinema in Haymarket, London. It gave potential end users an opportunity to try the Moviereading app to give feedback.

After the screening, participants were requested to complete a survey.

3.2 Participants

38 cinema goers who use AD were recruited to attend the test screening. This group comprised existing RNIB contacts known to be AD users and others who volunteered their time to try the app and give feedback.

Background information about participants was collected prior to their taking part in the user trial. This included: demographic information (age, gender); sight condition (self-report); and platform used – iOS/Android.

Participant profile
Gender
- 18 women and 20 men tried the app at the screening

Age

17 respondents were between 25 to 34 years
- 10 respondents were between 35 to 44 years
- 7 respondents were between 45 to 54 years
- 2 respondents were between 55 to 64 years
- 2 respondents were between 65 to 74 years

Note: There were more participants between the ages of 25 to 44 years in the user trial than in any other age. This data coincides with Ofcom's finding published in Adult's Media Use and Attitude Report 2017. In accordance with the report, "A majority of adults aged 16-64 use a smartphone, and those aged under 55 are more likely than the average to use one."

Sight level

- 2 participants said they can see well enough to recognise a friend across the road
- 3 participants said they can see well enough to recognise a friend across a room
- 5 participants said they can see well enough to recognise a friend who is at arms-length
- 9 participants said they can see well enough to recognise a friend if they got close to his or her face
- 7 participants said they can see the shapes of the furniture in a room
- 17 participants said in a room during daytime, they can tell by the light where the windows are
- 6 participants said they cannot see anything at all

Note: From the sample it is evident that overall the respondents tended to have severe sight problems and it relates to our understanding that the primary target for AD is blind people.

Cinema viewing habits and using the app

When asked how often they visit the cinema,

- 15 participants said once in 3 months
- 13 participants said twice a year
- 5 participants said once every 2 weeks

- 3 participants said once a year
- 2 participants said once a month
- 1 participant said once a week

When asked how many of them had used the AD headset offered by cinemas,

- 26 participants said yes
- 12 participants said no

Answers also included the following comments: -

"Headsets don't always work, you have to be in a particular row and AD isn't always delivered."

"They [headsets] were awful. Invasive."

"It didn't work in the particular part of the cinema where I sat and we had to sit in the seats where allocated. The cinema advised it would be fine."

"Mostly comfortable over the ears cams with good sound and volume controls. Can become heavy and hot during a long film."

"Regularly get given the headset for hard of hearing and miss 20 minutes of the film to be given the right headset. No compensation for this poor service."

"Unfortunately, I didn't have good experience using them. The pair that was given to me by the member of staff was not working, so I had to spend half of the film looking for a good headset."

"I have my own."

"This is good when it works, it's often not available, or not working."

"I've either gone to the cinema with friends to shows where AD isn't available or have waited for a movie to come out online or on DVD so I can watch it more closely at home."

"I have had poor experience with them."

"Gave up using it as it crackled and volume was a faff."

"I have tried on three separate occasions in different cinemas to use the AD headsets, however, they have never worked for me so I have answered no to this question."

"These are often uncomfortable."

"Good option but limited availability; some models are not straightforward to operate. Sometimes the headset size can detract from the overall cinematic sound experience."

"I have used the AD headsets offered in theatres to listen to AD when watching plays, but have never used one for watching movies."

"The headsets can be temperamental at times and I find it extremely disappointing that my local cinema (Vue Harrow) offers hardly any AD - if more were to be offered, I would likely attend more often. I would prefer not to have to travel to another location, further from my home, to see a film which would be completely unnecessary for sighted viewers."

"The traditional AD headsets are very temperamental and sometimes do not work or I often have to sit in a specific location while holding the device upright for example. There may often be some background hissing too."

When asked what sort of services do they use on their Smartphone/ tablet,

- 23 participants said they use social media i.e., Twitter, Facebook etc

- 19 participants said online shopping
- 28 participants said email
- 19 participants said banking
- 24 participants said entertainment i.e., films, dramas, books, music

Answers also included the following comments:-
"Productivity apps like KNFB, dropbox and mobility apps like bus times."

"Radio"

"I don't use many features other than texting and calling."

"Travel."

"Gaming, art and everything creative."

"Video conferencing for both social and work contacts, education applications, home automation, and visual accessibility enhancements"

"Many other applications – such as navigational and transport, gaming, cooking, diet, exercise…"

"OCR scanning, Be My Eyes (for sighted assistance with day-to-day issues when needed)"

"Gps and navigation apps."

Which platform did the participants use for Moviereading?

- 32 participants used iOS
- 6 participants used Android

Did the participants use any assistive technology on their phone?

- 28 participants used the app with speech
- 7 participants used the app with magnification

- 3 participants used neither (indicates support from a sighted companion)

3.3 Feedback on the app

When asked, was the app easy to use:

- 17 participants agreed strongly
- 16 participants agreed
- 5 participants neither agreed nor disagreed

Answers also included the following comments: -

"It was helpful to have the instructions beforehand although I wouldn't have necessarily known how to get the track without this. The app took a couple of minutes to sync although worked well for the rest of the film."

"It was easy to follow, step-by-step directions. Got a bit lost while syncing the audio description with the film."

"Still needed some sighted help to load and implement."

"Unable to increase sound volume during noisy parts of the film."

"Easy to download and use. Pretty idiot proof."

"The app took a while to sort itself out, there was a problem using BLUETOOTH to connect and synchronise to the movie, I have never had a problem using the Bluetooth to listen to my media, so I don't know why it wouldn't work in the cinema."

"My sighted guide accessed the app; I probably wouldn't go to the cinema on my own anyway."

"Clear menu text, easy to find and select the movie to download, easy to play and sync it with the film."

"There were some technical issues with the first sync."

"Needs some additional features, more films."

"I was a little thrown initially when using the application as I had pressed watch the movie prior to the movie starting, and as a result, it was a little out of sync for the title screen. However, I quickly worked out but there was a synchronise button and once I selected this, the application synchronised again, it worked perfectly."

"The app is great but needs better navigation options."

"Mostly intuitive interface."

"No problems with the app, I found it very easy to use. It could be worth stating in future in any communication with cinema-goers that the app can be used even when the screen is locked. This could avoid confusion."

"App was very easy to use just a point about compatibility with VoiceOver after pressing play: VoiceOver did not read the screen once synchronisation had started. I had to close MovieReading in the App switcher and start again."

When asked, if they felt they needed the support of another person to be able to use this app initially,

- 19 participants strongly disagreed
- 11 participants disagreed
- 5 participants agreed
- 1 participant neither agreed nor disagreed
- 1 strongly agreed

Answers also included the following comments:-
"I needed guidance before the screening on setting the country to the United Kingdom although once set up, I was successfully able to access 'My movies' to select the track and select 'Synchronise' without any help."

"Even with sighted help some steps in the downloading were not easy to do."

"Don't see why anyone would need help. Very well designed"

When asked, if they felt they will always need the support of another person to be able to use this app,

- 25 participants strongly disagreed
- 10 participants disagreed
- 2 participants neither agreed nor disagreed
- 1 participant agreed

Answers also included the following comments:-
"It would be useful to have prompts when using the app or a step by step set up screen guide that talks you through on how to download an AD track when you first use the app."

"I am assuring myself that my skills will improve overtime."

"I would be able to access the app using speech with practice."

When asked, if this app enhanced their cinema experience,

- 21 participants strongly agree
- 13 participants agreed
- 4 participants neither agreed nor disagreed

Answers also included the following comments:-

"This would have been a 'strongly agree' if I didn't have to re-sync as it didn't do it properly at first. I was 5 seconds out for 20 minutes or so. But I just stopped and restarted it again and it sorted itself out."

"I was able to follow the film without sighted assistant and was able to control my own device."

"The app made the film more accessible, however when the movie had loud scenes it was difficult to hear the AD."

"Very much so. The description filled in many details that I wouldn't otherwise have noticed (e.g. facial expressions, action in darker scenes, smaller objects that were being used, etc), and it synced quickly so I didn't miss anything."

"I think the ability to use our own device is absolutely the right way to go. The aspect of being able to have flexibility and freedom to use any cinema screening the movie is fantastic. This also helps aspects like hygiene, comfort etc."

"This was brilliant! Admittedly my first experience of audio description, and obviously a film has been chosen with a decent audio description track. However, bearing that in mind it massively improved my overall cinema experience and brought going back to the cinema into the realms of possibility again for me."

"I know that, were this app to be made widely available, I would attend the cinema far more often!"

"Wonderful to be able to use my own headphones and have consistent sound."

When asked if they were happy with the sound quality of the audio description,

- 17 participants strongly agreed
- 14 participants disagreed
- 7 participants agreed
- 1 participant neither agreed nor disagreed

Answers also included the following comments:-
"It was quieter than expected especially where there were more dramatic scenes. I did then need to turn up the volume on my device although I could then hear others earphones playing the track as they turned up theirs."

"The sound was very low compared to the sound from the movie. Missed out on some of the audio description."

"Tried to increase sound during heavy music or other sounds but could not (?) find the way to do this?"

"It is always difficult to hear the AD when the film is loud. You don't want the AD turned up all the way through the film. This isn't a limitation with this method but with AD in general."

"The track was of very low quality and rather quiet. In the moments of heavy action I had difficulty to understand the narrator."

"Could not hear properly when cinema background sound was loud."

"I struggled a little with it being too loud during quiet parts of the movie and too quiet during loud parts."

"The sound was clear, no distortion. You do have to turn the volume up fairly high, but that's to be expected given that films have loud sound in the cinema. And I was able to hear it very clearly. It only gets drowned out briefly if there's a burst of loud music or action in the film. But even over louder scenes I could still turn up the volume enough to hear it clearly, and then turn it down again when the film got quieter."

"I would request a higher bit rate quality of the AD track. I was aware that there was a low bit rate quality being used for it, and clarity of the voice is extremely important."

"Sounds volume is so dependent on headphones etc. It'll never mix well."

"I was surprised that the audio description was not made out with voice-over, but instead by a professional reader, however, I was pleasantly surprised! It does however mean that the quality of the

audio description will be down to the person reading it out and beyond the control of the application. This should not be a detractor for the application."

"Sometimes it was hard to hear the audio description when the film was particularly loud."

"The volume was too low, even it was on 100%."

"The bitrate of the audio track was far too low - mono audio should be encoded at a minimum of 128kbps for MP3 audio. Digital sound distortions are unacceptable in the context of a cinematic experience."

"The quality was good as there was no interference or 'shshh' sound you can get from cinema headsets."

"The sound quality of the audio description was good for most part. However, when the sound level of the movie increased (loud music, loud voices), the volume of the audio description did not increase. This resulted in the AD being inaudible during action sequences accompanied by loud music. Increasing the volume of the phone did not resolve the issue, as the volume of the movie's audio was still significantly louder. If the app can detect fluctuations in volume of the movie audio and adjust itself automatically, that would be very helpful. In movies that come accompanied with AD where the AD track is synchronised with the movie track beforehand, the volume of the movie track reduces automatically during action sequences and the AD is therefore clearly audible."

"Only issue was during loud action scenes or music in the film, the audio description was hard to hear. Maybe automatically raising the volume of the AD when the film sound level increases could be a solution?"

"There was clicking in the AD. This was annoying to listen to and sometimes meant one could not hear it properly."

When asked if the synchronisation of the audio description with the film was accurate,

- 18 participants agreed
- 17 participants strongly agreed
- 2 participants neither agreed nor disagreed
- 1 participant disagreed
- 1 participant strongly disagreed

Answers also included the following comments:-
"Missed the beginning of the film."

"After the initial syncing, it synced to the film even when leaving the cinema room and coming back in"

"Probably a few seconds here and there."

"Sound level OK for dialogue but too low for music or sound effects."

"As mentioned before, it didn't sync properly initially and I had to intervene to get it set properly. Once properly synced it worked lovely."

"It took a while to get started but then was fine."

"I pressed Play as soon as the Disney music started, and it synced pretty much instantly, within a couple of seconds at most. That gave me plenty of time to adjust the volume while the Disney logo was appearing and being described, so I was ready for when the film started after it. The synchronisation remained accurate for the entire film, it never went out of time."

"App did not sync correctly on its own initial sync. I noticed that the AD was 3 seconds too early which meant the AD would clash and conflict with the last word or 2 spoken on screen then I pressed sync on the screen."

"Accurate once it had decided to sync."

"As stated already, once I sorted out my initial human error in starting the application early then the synchronisation was great."

"I think I pressed the button a little too slowly and I was worried it wouldn't sync properly, but it did not take long for it to sort itself out."

"I deliberately restarted the audio track several times throughout the movie and found that it was necessary to manually press the sync button. However, this button was extremely effective."

"Yes just took a few seconds"

"Once I'd got it sorted out at the start."

When asked if they had any problems setting the region to UK within the app,

- 35 participants said no
- 3 participants said yes

When asked if they had any problems registering with the service?

- 37 participants said no
- 1 participant said yes

When asked if they had any problems finding the AD track they were searching,

- 36 participants said no
- 2 participants said yes

When asked if they had any problems downloading the AD track,

- 38 participants said no

Answers also included the following comments:-
"It was useful to have a message that said the download was successful."

"Just did it once, clicked on 'sync'."

"Downloaded very quickly over my home wifi connection."

When asked if they had any problems pausing the AD,

- 37 participants said no
- 1 participant said yes

When asked if they had any problems resuming the AD,

- 20 participants said no
- 4 participants said yes
- 14 said they did not try

When asked if they had any problems deleting an AD track,

- 10 participants said no
- 28 participants said they hadn't tried

When asked if overall, they were satisfied with the app,

- 19 participants strongly agreed
- 17 participants agreed
- 2 participants neither agreed nor disagreed

Answers also included the following comments:-
"The description was very good and kept in time with the film. The screen that shows the sync, resume and pause buttons were very easy to see and use."

"I think with a warning that it might not sync properly and just to pause and restart instructions then it is fine."

"If this provides more access to AD then it is a good option but I prefer the cinema headsets because the sound is better and the movie audio track is also through the headphones. The app that we tested did seem to give a distant listening experience."

"Very easy to use, didn't encounter any problems."

"I would say that it is vital to have the initial sync to be improved so it is accurate first time round, as many less experienced users may not be aware of such issues, and therefore perhaps accept or think that the service of AD works this way via this method."

"cannot wait for some more tracks to become available for films I want to watch."

"It worked really well, but twice I was struggling to find play button. So I closed the App and start from starting."

"The only thing is that users will need to make sure they have 1) enough charge on their phone to listen, 2) have headsets on them. I am wondering if the cinema can offer spare headphones and chargers for individuals who happen to be in need."

"The app is already quite good, except for the sound quality issue during loud action sequences."

"i have my iPhone set to French and found a few typos and mistranslations in the French interface of the app."

When asked if they would use the app again in the future,

- 25 participants said all the time
- 8 participants said most of the time
- 5 participants said maybe a few times

Answers also included the following comments: -
"Provided I learn how to improve sound levels during film show. Far better because I'm in control of sorting out the AD rather than cinema staff who don't have a clue what they are giving you!"

"For a totally blind person like me, this would be the best option ever."

"If there was no alternative. If this app is used there may need to be suggestions for headsets that don't allow over-spill of sound to

other people sitting nearby. Possibly also posters in the cinema so general cinemagoers know why people are using their smartphones during the movie."

"Very easy and convenient, and I would visit the cinema more often if new film releases had description provided in this way, rather than holding back for home releases later on."

 "I think in a normal environment we'd be marched out of the cinema if we tried. :D"

"Again, this app heavily relies on the quality and quantity of audio description tracks available within the listing. So long as there is a track for something I want to watch, I will definitely be using this. It was so easy and was a joy to use and really enhance the cinema experience."

"Sometimes it's difficult with headphones to concentrate. If it could be one ear for AD and second one to listen movie, it will be great."

"This could be particularly useful for private movie nights with friends, assuming that the audio description track availability in the app is widespread."

When asked how the experience of using the app compared to using the AD headset offered by cinemas,

- 25 participants said they prefer the app
- 10 participants said they don't mind as long as they can hear the AD and enjoy the film
- 2 participants said they preferred the AD headset
- 1 participant preferred not to state preference

Answers also included the following comments: -
"I would prefer to have the option to see any film showing that I wished. It would then mean I could sit anywhere in the cinema I wished to with friends/family. In addition, I would feel a lot less worried about whether the track would work or not."

"No comparison App is far better."

"I would prefer the app, simply because it would guarantee the best cinema experience, which includes the quality of the sound and the ability to control my device independently."

"I would prefer to use the app."

"It's just the availability that's the problem. From the perspective of independence and potentially being able to access many more films the app is better."

"I don't have experience with the headset, but I am aware they can be temperamental and are only available for selected showings of each movie. The app gives the convenience to watch at any cinema at any time using your own device."

"You still can't beat a dedicated AD track that has been mixed correctly so home viewing will always win."

"I think I prefer watching movies at home on a DVD or TV where the audio description is already mixed within the soundtrack."

"I can just go to a cinema with my friends or my husband at their convenience and still enjoy the movie using the app and my own headphone set."

"Using the app allowed me to have a lot more control over the description. It was far easier to adjust the volume – depending on what was happening in the film. I have often missed out on description – because it was too quiet at certain points of the film. I also very much prefer the anonymity that using the app provides. I do not like sitting in a cinema with conspicuous earphones on. Always conscious that the person next to me can hear the audio description coming through my earphones. I would definitely always use the app."

"Using the app would facilitate me going to any cinema at any given time to watch a film, likening my experience to that of sighted cinema-goers."

"No sound fading in and out, ability to increase volume level, so easy to use."

4. Discussion

Overall, participants of the test screening responded positively to the app and their first experience of using the app as an alternative means for receiving AD. The main benefit was being able to use AD on a personal device. Participants who visit the cinema with their family or friends commented that they appreciated the option to choose the cinema site regardless of whether it had the equipment needed to deliver description.

Participants also outlined other benefits such as being able to use their own headphones, not being restricted to those seats in a cinema that promise good transmission of the AD tracks which are all characteristics of a personalised service.

However concerns were raised about the sound level of the AD track vis-à-vis the film soundtrack which drowned all else in certain parts.

Participants using iOS also highlighted some gaps in accessibility for example film listings were found to be incompatible with VoiceOver at the start of the trial. In addition, concerns were also raised on the following issues:

Some people found that Voiceover interfered with the initial synchronisation, even updates from other apps such as emails, social media services conflicted with the process however once synced, it remained so until manually paused.   Another glaring gap in accessibility was the MovieReading app on Android, it was found to be incompatible in places with TalkBack and therefore participants who were dedicated Android users found themselves at a disadvantage. For example, there were no status updates while downloading the AD track so there was no way to establish whether 10 per cent of the track had downloaded or 80

per cent. In contrast, sighted users had an on-screen alert with information on the status of the download.
End users expected auto sync when they tried the app for the first time so there is a need to look into the possibility of introducing auto sync or make first time users aware that the film will not sync until they tap the button.

These suggestions and complaints were fed back to the MovieReading Team.

5. Recommendation

It must be noted that the overall feedback on the user experience of using the app was reported as highly positive and it is recognised in the comments (included in the section above) that if such a service was made available post the trial, most people are likely to use it regularly therefore we believe this result, gives us a strong basis for taking this forward as a long term, possibly six-month, trial of the app which would give many more people across the country to try the app a few times and feedback.