Your response

Question	Your response
Question 1: Do you have any comments on our proposed approach to making these changes?	*Is this response confidential? – N (delete as appropriate)* We are broadly supportive of Ofcom's proposed approach here, in particular the focus on outcomes rather than the means by which these outcomes are achieved.
Question 2: Do you have any comments on our proposed additions to the TV Access Services Code?	*Is this response confidential? – N (delete as appropriate)* Para 3.2 of the Consultation states that "in order to contribute towards numerical quotas, access services must be of sufficient quality, and we outline a number of factors that we'll take into account in this regard (Code para 4.7"). We are unclear on how para 4.7 in the Code will work in practice: "Ofcom will consider whether access services are of sufficient quality on a case-by-case basis." What is the mechanism by which Ofcom proposes to do this? In para 6.3 of the Code (unavailability of scheduled access services), there needs to be clearer definition of how audiences might be given timely information. The solution could be very different in relation to the loss of access services on an individual programme vs a longer incident affecting a number of programmes.
Question 3: Do you have any comments on any of the following proposed changes/additions? Please provide any additional evidence you think we should take into account. • **Understanding audiences** • **Developing strategies** • **Programme selection and scheduling** • **National emergencies and important on-screen information** • **Promoting awareness** • **Accessibility and diversity in production** • **Training**	*Is this response confidential? – Y (delete as appropriate)* ✂

• **Monitoring of quality**	
Question 4: Do you have any views on how developments in technology may inform the production of access services in the coming years?	*Is this response confidential? – N (delete as appropriate)* **The Broadcast and Media Environment** • IP environments and cloud-based workflows will mean changes in how accessibility is delivered and managed in the coming years. The persistence and availability of media metadata (including accessibility) is a critical factor in the successful operation of IP environments. Technology changes here are likely to be invisible but will drive change for broadcasters and their access providers. • Object-based studio developments in the IP environment potentially provide new options for customising accessibility presentation (among other things) for audiences. • Cloud workflows will mean new methods of encoding subtitles and delivering accessibility. • The proliferation of fragmented approaches to streaming is likely to present one of the bigger challenges, mainly to ensure consistency of presentation and experience for viewers across a wider range of platforms. Specifications for these platforms can change fairly regularly, requiring more support to ensure that consistency of presentation. **Production Automation with AI** AI driven technologies, the most significant of which is Automatic Speech Recognition (ASR), will be transformative in the Access space. The impact of AI is most advanced in the area of subtitling, making inroads to audio description, with advances also taking place in sign language translation. It is Red Bee's view that technology improvements in this area continue to be very

rapid, with a significant additional boost to ASR/transcription capabilities being provided by Large Language Models (LLMs) such as ChatGPT.

Automatic speech engines have become highly robust across accents and are becoming increasingly robust across content types (different sports, for example). Synthetic voice is already in use for some audio described content. Scripting for audio description is likely to prove a much more challenging but probably not impossible task. Artificial avatars for sign language translation are increasingly viable.

As with all technology advances, but perhaps particularly in the case of accessibility, the deployment of these technologies takes place in a social context, and its progress will depend on audience and community reception.

Automation is in our view likely to be an enabling technology, helping content publishers of all kinds to provide accessibility across an ever-increasing range of platforms and at all sorts of levels of viewership.

It is Red Bee's view that judicious application and use of these technologies by accessibility experts, in close partnership with broadcast and media businesses and their audiences, will have a positive impact on the availability of accessibility across more content and more platforms.

Subtitling

Most of the observations on the impact of technology apply evenly across subtitling. However, it is worth noting that audience expectations of quality are generally higher for pre-recorded subtitling than for live. Timing and latency are critical for both types, and in automatic speech processing there is a trade-off between how quickly the automation processes speech and accuracy; processing an entire pre-recorded media asset versus processing live content will produce different quality levels.

Automation's capabilities are increasing every day, but there are still some constraints or meaningful differences to human-produced accessibility. Some programming and some

conditions are still not appropriate for automatic speech recognition. People talking over each other, musical content, unusual and very strong accents, or ways of speaking less well served by the ASR datasets (which can mean minority groups or people for whom English is not their first language) can all result in lower quality transcription.

And whereas live subtitlers are trained to correct errors, this is not something it is feasible for automation to do.

However, not all the trade-offs are negative - automation is much better at transcribing every word, which in content dense with information is harder for a subtitler to do, due to cognitive overload. Producing more words does of course mean faster reading speeds.

We expect the use of automation to increase rapidly, but to be uneven across content types and channels of distribution. High profile broadcast channels, for instance, may wish to retain the levels of quality assurance which are currently provided by subtitlers, and wait longer for the technology to advance further before changing approach.

Audio Description

Synthetic voices have improved significantly in recent years, with higher levels of warmth and variations of expression. While perhaps still not considered appropriate for dramatic content, the current view is that for documentary content or reportage synthetic voices can be acceptable. However, since writing the AD script is the more time-consuming of the audio description processes, and involves high levels of creativity, the commercial benefits of synthetic voices in the voicing process may be limited. With LLMs, many in accessibility believe that for some constrained use cases, automated or semi-automated scripting may be feasible in the mid-term future, however, this is at a very early stage and is one of the most significant challenges for the use of automation in accessibility.

It is worth noting that we are also seeing an increased interest in live AD, which is driving

new technology, editorial and workflow experimentation.

BSL Sign Language Translation and Interpretation

Cloud and software-based workflows are making it easier than ever to produce and deliver sign language accessibility. In recent years Red Bee has created a production environment that enables deaf BSL speakers to provide sign language translation for live news and other events, with a high impact on native BSL speaking audiences and the sign language translators themselves.

As mentioned above, object-based studio technologies have the capability of providing “closed” signing presentations.

At that stage, the main constraint on the widespread delivery of sign language accessibility becomes resourcing and cost.

Digital avatars for BSL and Makaton are becoming increasingly sophisticated and realistic, and they provide a high degree of flexibility - the ability to create appropriate “characters” for children's presentations, for instance. BSL is however incredibly rich in terms of its use of facial expression, gesture and the “human” or personal aspects of its delivery, and any technology continues to be “lossy” in these regards - that is to say relevant information (facial, gestural) and ambient expressiveness are easily lost in their presentations. However, these approaches are becoming highly capable of delivering critical information, and therefore may be deemed appropriate to provide accessibility in some situations. Any use of avatars for sign language presentations is in our view something that will need to be closely co-ordinated with broadcasters and the BSL community.

Typically, across the range of automatic production methods, we have seen automation come in first for low profile content or for specific use cases - automatic speech recognition for meetings, or on platforms with User

	Generated Content (UGC) where it might not be financially feasible to provide accessibility otherwise. Where automation allows the amount of accessibility to be increased, and audience reach increased, it is an obvious and relatively uncontroversial solution. As the content becomes higher profile, more expensive or more public, individual editorial and audience judgements and responses may differ. As we have said above, our view is that AI technologies will provide substantial increases in reach and availability of accessibility. The speed of technology changes mean it is highly likely that barriers to their use today will be surmounted tomorrow. It is Red Bee's view that the best way to harness the advances in AI technology is to work closely with broadcasters and their audiences, and to understand for which content these modes of production are appropriate, and where they are likely to be less successful. This, and regular reviewing of these technologies and their advances, should mean the great opportunities this technology provides can be deployed successfully.
Question 5: What do you think about the proposed list of external sources/ guidelines in Annex 3? Are there any additional sources which Ofcom should refer to?	*Is this response confidential? – N (delete as appropriate)* We think this is a good list.
Question 6: Do you have any comments on the following suggested changes relating to subtitling? Please provide any additional evidence that you think we should take into account. • **Subtitling speeds** • **Live programming** • **Subtitling presentation** • **Sound and music descriptions** • **Language of subtitling**	*Is this response confidential? – N (delete as appropriate)* We welcome the amendments to the guidance in these areas. Could Ofcom provide further clarification around *5.20 Subtitling language*?

Question 7: Do you have any comments about the other proposed changes to the subtitling guidelines, as summarised in Table 1 (Annex 1)?	*Is this response confidential? – N (delete as appropriate)* No.
Question 8: Is there anything additional that you think should be added to the revised guidelines on subtitling?	*Is this response confidential? – N (delete as appropriate)* No.
Question 9: Do you have any comments on the following suggested changes relating to audio description? Please provide any additional evidence that you think we should take into account. • **Approaches to/ styles of audio description** • **Describing visual features** • **Describing information about diversity characteristics** • **Additional audio accessibility features**	*Is this response confidential? – N (delete as appropriate)* We think that extended audio descriptions can be more helpful on some content (eg adverts) than on longer programming.
Question 10: Do you have any comments about the other proposed changes to the audio description guidelines, as summarised in Table 2 (Annex 1)?	*Is this response confidential? – N (delete as appropriate)* On the current (and retained) guidance on avoiding describing over the main soundtrack, there can be moments where the visual elements in a programme take precedence over the main soundtrack, and even over minor dialogue. There could perhaps be clearer definition here of “soundtrack” and “dialogue”.
Question 11: Is there anything additional that you think should be added to the revised guidelines on audio description?	*Is this response confidential? – N (delete as appropriate)* No.

Question 12: Do you have any comments on the following suggested changes relating to signing? • **Meeting the signing requirements** • **Selection/ scheduling of signed programmes** • **Use and preferences for different types of signed programmes among d/Deaf children** • **Ensuring the quality of sign-interpretation** • **Size of sign interpreter image**	*Is this response confidential? – N (delete as appropriate)* Selection of programmes should take account of what deaf viewers want to watch whilst of course balancing scheduling and rights considerations.
Question 13: Do you have any comments about the other proposed changes to the signing guidelines, as summarised in Table 3 (Annex 1)?	*Is this response confidential? – N (delete as appropriate)* No.
Question 14: Is there anything additional that you think should be added to the revised guidelines on signing?	*Is this response confidential? – N (delete as appropriate)* No.

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