

Channel 4 response to Ofcom's consultation on the quality of live subtitling

Introduction

- Channel 4 is a publicly-owned, commercially-funded public service broadcaster, with a statutory remit to be innovative, experimental and distinctive. Channel 4 was set up as a publisher-broadcaster, commissioning all of its content from the independent production sector rather than from an in-house base. Our not-for-profit model means that we work to maximise investment into remit, and in particular, high-quality, original UK content. In addition to the main Channel 4 service, Channel 4's portfolio includes E4, More4, Film4 and 4Music, as well as an ever-growing range of online activities that includes channel4.com, Channel 4's bespoke video-on-demand service 4oD and standalone digital projects.
- As a public service broadcaster with a specific remit to cater to diverse groups within society, Channel 4 is committed to being as accessible to as wide a group of individuals as possible. We work hard to make our content accessible to those with sensory impairments – in 2012 providing the highest proportion of programmes with subtitling and audio description of all the public service broadcasters. We also engage regularly with disabled communities to ensure we are responding to the needs of people with disabilities, and to acknowledge any concerns they may have.
- Channel 4, and our access service provider Red Bee, also look to ensure the services we are providing are as high quality as possible. We have been actively engaged with Ofcom's work exploring the quality of subtitling over the last 12 months, and welcome the opportunity to provide formal evidence to this consultation.
- In particular, we welcome Ofcom's recognition within the consultation document of the efforts that broadcasters already make to ensure access to high-quality subtitles, as well as the highly complex nature of the subtitling value chain. We support Ofcom's overall objectives of developing a coherent way of 'measuring' quality rather than being dependent on the subjective experiences of individuals – and will work closely with Ofcom and other stakeholders over the coming months on the best way of achieving this. However, it will be important that Ofcom is careful to manage expectations on the level of tangible change that such a framework could achieve.

Channel 4 and access services

- Channel 4 recognises how important it is that people with sensory impairments are able to access and enjoy our content. This is why in 2011 we announced major voluntary commitments to exceed our statutory quotas, by subtitling 100% of our programmes across all of our channels. In 2012 Film4, More4, E4, Channel 4, Channel 4+1, Channel 4 HD, E4 HD and Film4 HD all delivered 100% of their programmes with subtitles.
- Channel 4's subtitling provision includes both pre-recorded and live subtitling, to ensure that all of our programming is accessible to hearing impaired viewers. Subtitling is provided in live-form predominantly for live programmes, such as *Channel 4 News* or sports events like the *Paralympics* or *Channel 4 Racing*. We also provide live subtitling where it has not been possible to add pre-recorded files – such as with near-live shows such as music concerts and festivals coverage, or topical programmes ranging from *Dispatches* to *Alan Carr: Chatty Man*, which are recorded very close to transmission.
- In addition to subtitling, Channel 4 is also required by Ofcom to provide audio description for 10% of all programmes on the main channel, E4, More4 and Film4 – and in 2011 made a voluntary commitment to more than double this provision to 20%. These quotas were significantly surpassed in 2012, with 34.5% of all programmes on E4 providing audio description, and at least 24% on all other channels. This provision included simulcasting the Paralympics Opening Ceremony live on More4 with a bespoke audio described commentary – an innovative approach to AD which was widely welcomed by disability groups and viewers.
- We are also subject to responsibilities regarding signing – in 2012 Channel 4 and E4 both met their signing quotas of 5% and 4% respectively while More4 made a financial contribution to the British Sign Language Broadcasting Trust (BSLBT) and the Film4 channel provided a valued slot for the broadcast of BSLBT specially commissioned programmes for the Deaf Community.
- Channel 4 recognises that increasingly consumers expect the same level of accessibility regardless of which platform they access content on. We have been providing subtitled content on our 4oD on-demand service since 2009, and now provide a majority of our catch-up content and archive content available with subtitles. Since 2012, Channel 4 has also been working to provide audio description services on 4oD.

Subtitling quality

- In addition to ensuring as much content as possible is made available to those with sensory impairments, Channel 4 is committed to providing high-quality subtitles. Our subtitling is provided by highly-trained specialists who regularly review and assess their work, and, through direct feedback provided to our Viewer Enquiries centre, as well as regular engagement with charities and disability groups, we monitor any concerns disabled viewers have about the quality of subtitles we provide, and then look to address and respond to them wherever possible.
- Our success at providing high-quality subtitles is reflected in the fact that despite broadcasting thousands of hours of subtitled programming every year, we receive very few complaints on the issue of quality. In 2012, Channel 4 received a total of 48 complaints about its television subtitling provision. This accounts for less than 0.05% of all the contacts made to Channel 4's Viewer Enquiries Centre over this period.
- Of these 48 complaints, only 24 of them related to specific quality concerns that were within the jurisdiction of Channel 4 and our access service provider: such as delays or subtitles being out of sync, live subtitling quality and inaccuracies. The remaining complaints were related to issues caused by technical problems – for example subtitles not appearing as a result of issues with the viewer's equipment. All complaints are passed on to Channel 4's access services team, who work with our access service provider Red Bee to investigate what may have caused issues.
- In addition to direct feedback from viewers, our access service provider, Red Bee, implements extensive reviewing and monitoring procedures to ensure that inaccuracies or other quality issues are picked up. All pre-recorded programmes undergo a QC check prior to transmission, and the Layout team liaises with the Access Services Duty Editor to troubleshoot any issues on air. This ensures that quality issues can be addressed and resolved as soon as possible.
- We are proud of our track record in providing high-quality subtitling, and we therefore welcome Ofcom's recognition of this work in its consultation document, which states that *"broadcasters and subtitling providers go to considerable lengths to ensure that subtitling is of reasonable quality and is successfully transmitted to viewers"*.

Improving quality

- Despite the low volume of complaints received by Channel 4 on this issue, and the fact that it will never be possible for 100% of all subtitles to be perfect – as some programmes will always need to be provided with live subtitles, and within live subtitling it is inevitable that some errors will be made - we and our access service provider Red Bee continuously and actively look to explore ways in which it is possible to enhance the quality of the subtitles we provide.
- For example, Channel 4 always seeks to ensure that, where a programme has gone out with live subtitles but is subsequently available through other means, such as via repeats on Channel 4 or 4Seven or the 4oD platform, wherever possible the live file is then replaced with pre-recorded subtitles, to ensure that any errors that occurred in the original transmission are corrected for subsequent viewings.
- In addition, Red Bee consistently seek to improve quality, whether through their internal training procedures, preparation processes, or by investing in innovative new software. For example, all subtitling staff at Red Bee are incentivised to consistently improve the quality of their work, and as part of the internal review processes at Red Bee, all subtitlers are regularly assessed on accuracy by both peers and line managers.
- With particular regards to live subtitling, Red Bee has a rigorous training programme for subtitlers who new to that process, which includes detailed in-house guidelines. In addition, subtitlers are not allowed to go on air to deliver live subtitling until they have consistently achieved an accuracy level of more than 97% in their training. ¹
- Subtitlers are also encouraged to access as much documentation about the live programme as possible, such as scripts, running orders or autocues, to inform their knowledge of the programme, its structure, content and contributors. Channel 4 makes considerable efforts to ensure this information is made available, as ensuring the subtitlers are as familiar with the material in advance as possible means there are less likely to be delays or mistakes when providing the live subtitles.
- In addition to these processes, Red Bee has also invested in technological solutions to quality issues – and most recently has launched new subtitling platform, Subito, which it believes could delivery major improvements in many areas of quality (see Box 1), such as reducing delays or increasing accuracy.

- ¹ Accuracy in this context is measured by looking at how many words are misrecognised by the subtitling software, how many words are missing, if extra words are added, or if the subtitles are ungrammatical and whether the text makes sense. Red Bee provide guidelines on their reviewing system to help line managers and reviewers make accuracy assessments, which includes distinguishing between types of errors.

- Channel 4 and Red Bee believe that Subito should address many aspects of quality of most concern to hearing impaired viewers – and would therefore encourage Ofcom to ensure that in addition to the specific regulatory measures and reporting mechanisms being pursued through this consultation, they also work to recognise and promote the voluntary initiatives being undertaken by industry to improve quality.
- In addition, we believe there is a role for Ofcom in managing the hearing impaired community's expectations of the level of quality that can be realistically achieved within live subtitling. As noted above, despite significant progress in technology and the work of specialist staff, it remains impossible for live subtitling to deliver perfectly accurate and in-sync subtitles: errors are inevitable. While all parts of the subtitling provision value chain work hard to minimise these errors and deliver the best solution possible, live subtitling will always require some level of compromise, and it will be important that Ofcom's work going forward reflects that.

Box 1: Subito – a new subtitling technology

- Subito has been developed by Red Bee along with their dedicated software partner.
- Subito is based on Dragon Naturally Speaking speech recognition software, and therefore represents a major upgrade on previous live subtitling software:
 - It is significantly more accurate than ViaVoice, the software previously used.
 - It is significantly quicker to train – enabling the subtitler to quickly scan in large amounts of vocabulary
 - It enables the creation of temporary macros which can ensure unusual words or names can be added to the subtitlers vocabulary automatically
- Subito also captures all live text with timecodes enabling Red Bee to service more quickly programmes where there is a first live showing and then either a VOD or a narrative repeat
- Red Bee has deployed the first phase of Subito, and has already seen improved accuracy levels. Later phases of Subito will allow Red Bee to prepare text much more easily and accurately – for example it will enable subtitles to be prepared for *Channel 4 News*, where there is access to running orders in advance, which can then be transmitted in sync with the soundtrack, reducing latency to a minimum.

- Ofcom have proposed developing a measurement and reporting framework that takes into account the issue of quality, to be reported alongside existing information on the overall volume of subtitles delivered by each UK broadcaster.
- Channel 4 is happy to work with Ofcom and other stakeholders on developing such a framework, which could be helpful a way of publicly reporting the progress made in delivering high-quality subtitles. Such a framework could also be helpful in bringing a degree of objectivity to a field that has previously been dependent on individual experiences of particular programmes, and subjective assessments of which aspects of 'quality' are most important.
- However, we would welcome further clarity from Ofcom on exactly what such a framework would be looking to achieve. While it will provide helpful information about what is being delivered by broadcasters, given the complexity of the live subtitling process and the best practice already being pursued by industry, as outlined above, it may be that broadcasters and their access service providers are not able to deliver significant quality 'uplifts' year after year. It is also unlikely to be possible to make meaningful comparisons between broadcasters, given the differences in programming types and overall volume of live subtitling that each provides. It is therefore important that Ofcom manages expectations about what introducing such a framework can realistically deliver.
- It will also be necessary to ensure that the agreed reporting framework is not overly onerous, or requiring extensive additional resource. Given the low level of complaints we receive by viewers on this issue, Channel 4 believes that having to invest considerable resource into reporting of this kind would not be proportionate to the level of concern regarding live subtitling quality.
- As Ofcom recognise, assessment of quality is a complex issue, and therefore cannot be evaluated by one simplistic measure. They are therefore right to focus on a 'basket of measures' that looks at several different aspects of quality – such as speed, latency, accuracy or presentation. It is important that Ofcom recognise however, that none of these aspects exist in isolation from each other – it is often the case that attempts to improve accuracy, for example, could lead to increased delays. This has proved to be a challenge historically when attempting improvements in subtitling quality, as there has not been a clear consensus from the hearing impaired community on the extent to which they may be prepared to compromise one for another.
- For example, in their consultation document Ofcom ask for views from subtitled users on their preferences for the presentation of subtitles – specifically scrolling versus block. Red Bee has tended to provide a mix of both kinds of subtitling, as it believes that both have advantages and disadvantages. Viewers are more familiar with block subtitling, and therefore often state a preference for it – however there are fewer delays involved in providing scrolling subtitling. This is

an example of the kinds of compromise that subtitling providers regularly have to make decisions on, and it is therefore welcome that Ofcom are specifically seeking a steer from users of subtitling on their preferences on this point. Within this context, Channel 4 would have welcomed as part this review process, impartial, robust research commissioned by Ofcom on user preferences on other aspects of the subtitling experience, which could be used to inform other decisions of this kind.

A single methodology

- Given the subjectivity surrounding the issue, for such a framework to be meaningful it will be important that a robust, single methodology is developed with clear, measureable parameters that can be consistently applied across broadcasters. This may take time to develop to ensure that a framework can be adopted that is meaningful for all involved.
- As part of this dialogue, we would welcome further clarity from Ofcom and others on the exact parameters of each 'quality' dimension. For example, in relation to latency, at what point in the programme should this be measured? Red Bee historically have not measured delay because, given that delays vary throughout the course of a programme, it has not been possible to agree on a 'single' latency number. Within this context, we agree with Ofcom that it would not be appropriate to set a maximum target for latency. In terms of accuracy, it is likely that there are currently different definitions of what constitutes a major or minor error within live subtitling, and therefore it will be important to provide detailed guidance on what the common definition should be.
- As outlined above, Channel 4's access service delivery partner Red Bee Media already conducts its own regular analysis on accuracy, including using a sample of programmes and checking for errors in wording, punctuation and spacing. Red Bee's experience of this kind of quality assessment should be a useful contribution to Ofcom's work to develop a more standardised approach.

Timing and practicalities

- Ofcom propose that every 6 months would be an appropriate timeframe for this report. However, it will be important to work through the logistical implications of this –at present broadcasters are currently only required to hold tapes for 90 days, and therefore will need to identify the best way of procuring a full 6 months' of output.
- Ofcom also ask if broadcasters should report separately on different types of live programming. Channel 4 believes that given the different expectations that viewers have about different types of

programming, it would be appropriate to distinguish between, for example, news and current affairs versus entertainment programmes. However, it will be important that this approach is not too granular to ensure that the information can remain meaningful and the job of measuring and reporting it is not overly onerous. We therefore support the approach suggested by Ofcom in its consultation document, that the sample should be limited to 2 or 3 categories of programme.

- Channel 4 observes that at present it is not currently clear who Ofcom is proposing should be responsible for conducting the monitoring – whether that is the broadcasters (which would require new, additional resource), the access service delivery partner (which would require them to report on their own work), or Ofcom themselves. We would welcome further clarity from Ofcom on this point.

Late delivery of programmes

- Ofcom's consultation notes that some pre-recorded programmes are currently broadcast with live subtitles, as despite being produced in advance of the transmission date, they were not delivered to the access service provider in time for a pre-recorded subtitling file to be added.
- Ofcom have therefore requested that the broadcasters provide them with a report in 2014, covering July to December 2013, which details the number of programmes delivered to the broadcaster after the agreed delivery date, which were intended to be delivered with pre-recorded subtitles but which as a result of this late delivery required live subtitles.
- Channel 4 is willing to provide Ofcom with such a list on a confidential basis. However, we would note that from our initial analysis that it is unlikely to be an extensive list – as previously noted, we seek wherever possible to provide pre-recorded subtitles, and the majority of programmes that go out with live subtitles are either transmitted live or were filmed very close to transmission. Other factors that could lead to pre-recorded programmes being transmitted with live subtitles include technical problems with the initial subtitle file, or legal issues that subsequently require re-edits. We therefore provide live subtitling as a last-minute alternative to ensure that the programme can still be accessible.
- Indeed, our figures suggest that in 2012, across the entire Channel 4 portfolio of channels, there were only 50 individual episodes of programmes that received live subtitling as a result of 'late delivery'. This compares with approximately 30,000 hours of programming broadcast across the Channel 4 portfolio that year.

- While Channel 4 is willing to provide Ofcom this information for the time period requested, we would encourage Ofcom to be mindful of the importance of proportionality, and would welcome more clarity on the objectives for requesting such information and expectations for the kinds of tangible change that it could lead to.

Technical issues

- Channel 4 welcomes Ofcom's recognition that there are a range of other factors that can impact upon the perceived quality of the subtitles on our programming, but which are outside of the control of the broadcaster or access service providers. As noted above, almost half of the complaints Channel 4 receives on the issue of subtitling were relating to quality – whether that is transmission issues that led to subtitles going missing or problems with viewer set-top boxes that affected their ability to receive subtitles effectively.
- Channel 4 is therefore willing to provide Ofcom with details on the incidences and technical causes of failures, where we have access to that information. Ofcom is right to note, however, that any detail is likely to be commercially sensitive, and therefore could only provide this information at an aggregated level.

Delaying live transmissions

- Channel 4 notes that Ofcom has asked for views on the possibility of introducing live delay transmissions to improve subtitling quality. While conceptually straightforward, introducing such a delay into all live programming will undoubtedly introduce a number of side effects, both in terms of technology, operational and cost perspectives, and is likely to cause significant risks for very little gain.
- The introduction of such a delay to live programming could, in Channel 4's view, unfairly discriminate broadcasters against other forms of media offering similar coverage of live events, including radio and social media, who would not be subject to similar delays and would consequently be able to offer its users with real-time updates of events. This, in turn, could have a significant detrimental impact on the viewing experience of live events on television, particularly in an increasingly converged environment.
- The impact of this delay would also have the potential to extend beyond our linear content. In recent years, Channel 4 has also increasingly sought to provide viewers with innovative new second-screen projects aimed at promoting further viewer engagement with its programmes. A significant proportion of our second-screen applications relate to live content – including the

Million Pound Drop Game app and online game and the *HorseTracker* app which provides a real-time view of horses in a race – and, by their very nature, rely on synchronisation with events as they happen. These projects are an important part of our multiplatform offering, offering both consumer and commercial benefits, but their feasibility would be placed at risk should a delay to live events be introduced.

- Similarly, from an editorial perspective, such a delay has the potential to have an impact on the output of a number of ‘results-based’ programmes. Sporting events, such as *Channel 4 Racing*, often embed current betting odds on live events as a key part of the editorial output, which can change at very short notice, and as such the introduction of a short delay may impact on accuracy in this area.
- Channel 4 also notes that live delay transmissions would add additional levels of complexity and costs in relation to the scheduling of live programmes. In particular, introducing a delay would result in further operational difficulties in the continuity and monitoring of live programmes which have been delayed, thereby increasing the risk to service reliability, and would further complicate the scheduling of programme junctions at the entry to, and exit from, live programming embedded into a linear schedule. Broadcasters would, in addition, also face the additional costs of including solid state delays into the broadcast chains to accommodate and monitor delayed live services, which would be required for all of Channel 4’s services.
- Channel 4 has, to date, actively sought to minimise delays in transmitting live programming to viewers, having recognised the importance to viewers of a lack of delays, particularly in relation to improving viewer experience and trust as well as the development of second-screen applications. Undermining this principle by introducing an intentional delay to live programming would, in our view, represent a disproportionate response to the issue of improving subtitles. We also believe that this could set a dangerous precedent of delaying programmes which may lead to further requests for longer delays to further improve subtitles which, for the reasons outlined above, would continue to have detrimental impacts for both broadcasters and viewers.

ENDS July 2013