A submission in response to the Australian Communications and Media Authority's 'Proposal to remake the Broadcasting Services (Television Captioning) Standard 2013' consultation paper

Centre for Inclusive Design

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1. About Centre for Inclusive Design

Centre for Inclusive Design is a centre of excellence for inclusive design in Australia. Our network of industry experts and global partners bring innovation and global best practice ID so everyone has the opportunity to connect and be a part of our society. CFID delivers innovation and insight, events and partnerships and a practice that helps people reach you. We build inclusive platforms to create more value for industry, government and most importantly meaningful connection for and with the people who are marginalised.

Centre for Inclusive Design, formerly Media Access Australia (MAA), has a rich history in the traditional disability sector both advocating and providing solutions for over 35 years. MAA was formed out of the Australian Caption Centre (ACC), a not-for-profit organisation founded in 1982. The ACC aimed to promote and produce captioning for deaf or hearing impaired Australians. In 2005, the ACC sold its commercial operations including the captioning services, and formed Media Access Australia.

As MAA, the focus broadened to those disadvantaged in access to media. In the digital age, the role of media and communication grew to include accessibility across digital communication as well as traditional communication. MAA focussed strongly on advocating and providing digital accessibility for Australia in websites, documents and videos. As the role of technology in our lives has grown, MAA realised they needed to tackle design issues in the conception stage and thus created Centre for Inclusive Design.

2. Executive summary

CfID commends the ACMA for releasing such a comprehensive Consultation paper, and conducting the consumer research underlying it.

CfID supports the retention of the Captioning Standard in its current formulation, and the trial of a metric model for measuring captioning quality, specifically the NER model, by broadcasters and/or the ACMA.

3. Answers to questions posed in the Consultation paper

Question 1: If the Standard were to be remade as currently drafted, would it be appropriate for it to be accompanied by an accompanying a commitment to:

> support industry to further examine the introduction of a metric measurement model in the future, particularly given the likely faster evolution in captioning related technology in the coming years?

> provide further guidance on the interpretation of key elements of the Standard?

Why or why not?

We believe that the ACMA should encourage and support the use of metric models in the captioning industry, as they provide the most objective method for assessing caption quality. While the NER model is currently considered the best, new and improved models may, and hopefully will, be developed in the future, so the ACMA should continue to monitor developments in the area.

We also support the ACMA providing further information on the interpretation of key elements of the standard if asked to provide them. However, we would make the simple point that whether the captions on any program are adequately conveying the soundtrack,

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and are therefore of acceptable quality, will be generally obvious to any interested hearing person who watches the program.

Question 2: Is the clarification that broadcasters have indicated they would like about elements of the Standard best achieved through informal guidance rather than redrafting the Standard? Why or why not?

We believe that the Standard's current requirement for captions: that they be readable, accurate and comprehensible, is a succinct and reasonable definition of high-quality captioning that will meet consumer expectations. That the current Standard is working is borne out by the high level of satisfaction found in ACMA's recent consumer research, and the decline in complaints about caption quality that Media Access Australia, and more recently the Centre for Inclusive Design, have received in the years since the Standard was adopted. We therefore believe that informal guidance is preferable to amending the Standard.

Question 3: If the ACMA did provide guidance to broadcasters about the application and interpretation of the Standard (in addition to information in published investigation reports), what would be an appropriate mechanism to achieve this? Please provide details.

We believe that a trial of a metric model by broadcasters and their caption providers, and by the ACMA using it to assess a sampling of consumer complaints, would provide an ideal mechanism for promoting discussion about the Standard and its definition of captioning quality. If these go ahead, regular meetings should be convened by the ACMA with the broadcasters so they could provide feedback on their progress in evaluating the metric model, the costs involved, and the degree to which they believe it delivers an accurate and objective evaluation of quality.

Question 4: In the current legislative context, would a metric model be an appropriate alternative to the Standard's current approach to measuring the quality of captioning? If so, why and how?

The purpose of any metric model is to provide an objective measurement of caption quality, so conceivably, the Standard's current stipulation that captions must be readable, accurate and comprehensible could be replaced by a requirement that captions must meet a certain percentage score as measured by a metric model. The drawback here is that the most accurate metric model, the NER model, is very labour intensive and expensive, and because it doesn't measure latency, cannot fully evaluate the quality of captioning of programs or segments of programs which are captioned live. We recommend then, that the Standard's current approach should be maintained, while noting that metric modelling can be used, where considered appropriate, to provide more objective evidence that captions are meeting the quality requirements.

Question 5: What benefits, if any, would a metric model have for viewers compared to the Standard's current approach to measuring the quality of captioning? Would viewers who are concerned about the quality of captioning be able to determine whether a captioning service has met a metric measure while they are watching a television program? If so, how?

Widespread adoption of a metric model has potential benefits for both the training of new captioners, and the evaluation of the quality of captions on programs which have been broadcast. The benefit for viewers will be in an improvement in caption quality.

We must stress though that a metric model like NER is a rigorous process involving software and hours of evaluation of errors by the person performing it, resulting in a accuracy score expressed as a percentage. There is no way that a viewer can look at a television program and determine whether the quality of the captioning meets any sort of 'metric measure'.

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We recommend that if a complaint has been evaluated using a metric model, when the complainant is advised of the result of their complaint they should be given information about how the metric model was utilised to make the reasons for the decision clear.

Question 6: What, if any, metric model would be the most appropriate to assess the quality of captioning? Please explain how it would address the BSA requirements of readability, accuracy and comprehensibility.

The NER model is the most sophisticated and commonly used metric model so far developed. It has been used in Australia by the Australian access provider Ai-Media, who provide captions for the Nine Network, since 2014. The process involves comparing a verbatim transcript of the dialogue in a program with the captions, noting errors, and classifying them as 'Serious' errors (which change the meaning of text), 'Standard' errors (involving the omission of information) or 'Minor' errors (which may not be noticed by all viewers), with each category given a different score. The process is labour intensive and reviewing a program using it takes between 10 to 15 times the length of the program.[1] If it is used carefully, it provides an accurate evaluation of the quality of the caption text. Its main drawback is that it takes no account of latency.

Question 7: Metric models used or considered overseas do not include details about the latency or synchronicity of captioning (although these are addressed in other elements of the legislative framework). Should these issues also be addressed by a standard dealing with the quality of captions?

In our experience, complaints about poor quality captioning often raise the issue of captions lagging well behind the dialogue in live and partly-live programs. In the research paper 'Live Caption Quality Monitoring on Australian Free-to-Air Television' released by ACCAN in 2019, an analysis of 40 hours of programs broadcast by the main five free-to-air broadcasters found the average time lag was between 2 and 10 seconds.[2] In practice, though, it can be much longer.

Latency can seriously reduce the comprehensibility of captions in, for example, news programs where the captions for one news item run into the following item. An automated system for measuring latency may one day be developed, but until then, this will remain a problem. Nevertheless, we believe that that it is possible for a person to make a reasonable, albeit subjective, judgement that the latency of captions in a program interferes with their comprehensibility, as required by the Standard. The ACMA should therefore continue to consider latency when investigating complaints from consumers about live captioning.

As the Consultation Paper notes, Canada's and the UK's regulators have adopted minimum targets for latency (6 seconds and 3 seconds respectively). We question how realistic these targets are, other than as an aspiration. In our experience monitoring and timing live captions, a 3 second time lag between speech and the corresponding captions appearing on screen is about the minimum that can be expected in live programs.

Question 8: How should compliance with a metric model be measured and monitored?

Assuming trials of a metric model have taken place and it is deemed to have been successful, metric analysis should be applied to any program where a complaint has been

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[1] Mikul, C, 2014, *Caption Quality: Approaches to standards and measurement*, Media Access Australia, Sydney. https://www.mediaaccess.org.au/research-policy/white-papers/caption-quality-international-approaches-to-standards-and-measurement

[2] Ellis, K., Kao, K., Peaty, G. & Locke, K. 2019, *Live Caption Quality Monitoring on Australian Free-to-Air Television*, Australian Communications Consumer Action Network, Sydney

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made, and the ACMA, on an initial viewing of the program, believes the complaint has merit. The result of the metric analysis should then be conveyed to the broadcaster.

We also support the introduction of system similar to Canada's, where the CRTC has required broadcasters to provide an accuracy analysis (using the NER model) of two programs per month, with one containing live content, since 2019. However, we believe two programs a month is not enough to give an accurate picture of a broadcaster's caption quality as measured by the model, and the required programming to be submitted should be formulated in terms of hours rather than 'programs'. We recommend that the programs to be subjected to metric analysis are nominated by the ACMA, after they have been broadcast, but not include programs about which complaints from the public have been received. This would ensure a random selection of programs being subjected to metric analysis.

Question 9: What arrangements would need to be in place to provide confidence in the results of a trial of a metric model?

The metric analysis needs to be conducted by an organisation which has proven competency in conducting it, and it needs to be seen to be objective. To ensure the latter, we recommend that metric analysis of a broadcaster's programs should not be conducted by the broadcaster's own captioning provider.