

Web Distribution Formats for Subtitles and Captions

The growing interest in the web distribution of broadcast content provides not only challenges for the provision of audio and video but also for the provision of related accessibility services. The professional broadcast industry has put some effort into the standardization of what are possibly the most widespread accessibility services: captioning and subtitling. New formats were developed under the label of "timed text". The most well-known standard for this is TTML with its variants SMPTE-TT and EBU-TT.*

Even after W3C published its TTML recommendation, browser manufacturers began to develop in parallel an alternative format called WebVTT and are pushing for close integration with HTML5.

Most of the browser vendors do not plan to support TTML natively. Note that the presentation fundamentals of WebVTT and TTML are identical.

The antagonism between these two types of Timed Text standards causes confusion in the industry and there is a risk of a division between professional content providers and browser manufacturers that slows down the adoption of accessibility services.

The more general question is how different interests in the market can be coordinated and which position and power the browser manufacturers have in the definition of new web standards. Additionally a side aspect in this context is the role of browser support for the XML format, a format that is very widespread in the broadcast domain, but which some browser manufacturers would prefer not to support.

* The well-established standard for connected TV devices HbbTV will inherently support the use of EBU-TT-D, a profile of EBU-TT for the use of subtitle distribution over IP based networks. A DVB profile of MPEG DASH will as well reference EBU-TT-D.