

QUESTION ITU-R 102/6

Methodologies for subjective assessment of audio and video quality

(1999)

The ITU Radiocommunication Assembly,

considering

- a) that Recommendations ITU-R BS.1116, ITU-R BS.1283, ITU-R BS.1284, ITU-R BS.1285 and ITU-R BT.500, and Report ITU-R BT.1082, have established primary methods for the subjective quality assessment of audio (including multichannel presentation) or visual (including stereoscopic presentation) systems respectively;
- b) that Recommendation ITU-R BS.1286 has established primary methods for the subjective quality assessment of audio in the presence of high quality television image;
- c) that the perceptual interaction between the audio and visual modalities can affect their mutual qualities and the overall perceived quality;
- d) that existing methods for the subjective assessment of audio quality are sometimes inadequate for audio systems with accompanying visual presentation;
- e) that there are no generally applicable methods for the subjective assessment of visual quality with accompanying audio presentation;
- f) that there are no known methods for the subjective assessment of both audio and visual presentation simultaneously;
- g) that a wide range of multimedia systems comprise audio-visual presentations. Such systems have a wide range of applicability in terms of:
 - terminal types (standard and high definition television, computer terminals, (mobile-) multimedia terminals),
 - applications (entertainment, education, information services),
 - presentation quality (low, intermediate, high),
 - presentation environments (domestic, office, outdoor, professional),
 - delivery systems (internet, mobile networks, satellite, broadcast),

decides that the following Question should be studied

- 1 What are the quality attributes for audio-visual perception?
- 2 How the context dependent quality balance between audio and visual presentation* should be considered?
- 3 What are the subjective test methodologies** required for different applications and quality levels for:

* Examples might include the important of synchronisation between audio and visual presentation for talking head applications, changing focus in sports transmissions (from fast moving objects, where video is most important, to the cheering crowd after certain event, where the audio catches the attraction).

- audio-visual presentation?
- visual presentation in the presence of audio (audio presentation at a constant quality level)?
- audio presentation in the presence of visual (visual presentation at a constant quality level)?

4 How could such methodologies be used as criteria to identify quality attributes that are important for different application areas of audio-visual presentation?

5 How could they be used to express quality requirements for audio and visual modalities for different application areas and to assess their optimization?

further decides

- 1** that the results of the above studies should be included in (a) Recommendation(s);
- 2** that the above studies should be completed by 2005.

NOTE 1 – This Question is complementary to Question ITU-R 99/6.

****** This should include, for example, the harmonisation of grading scales employed in audio and visual testing at present (refer to present ITU-R BS and BT and ITU-T Recommendations), test environments, viewing and listening distances, training procedures, etc.