

**ITU Workshop on Making Television Accessible –
From idea to reality” hosted and supported by
Nippon Hōsō Kyōkai (NHK)**

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**Captioning Service Issues
and Standardization**

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Subtitling / Captioning

- Standardization? What kind of?
 - ➔ Lingual? → No
 - ➔ Funding / costs ? → No
 - ➔ Legal standardization ? → No
 - ➔ Similar contractual relations ? → No

Subtitling / Captioning

- Standardization? What kind of?
 - ➔ Media convergence?
 - Solved, but depends on infrastructure
 - ➔ Accuracy determination?
 - WER rate or NER model
 - Acceptable delay on live programs

Subtitling / Captioning

- Standardization? What kind of?
 - ➔ Formal?
 - Number of lines
 - Reading speed
 - Display mode (word per word, block)
 - Language level: (verbatim or simplified language)
 - Placement: top or bottom
 - Broadcasting features

Subtitling / Captioning

- Standardization? What kind of?
 - Formal standardization: largest variety
 - There are pros and cons for almost any solution
 - Solution mainly depends on
 - existing subtitling culture
 - which of stakeholders leads the discussion

Subtitling / Captioning

- Standardization? What kind of?
 - ➔ All the differences
 - due to human intervention
 - therefore culture-driven
- ➔ An ongoing cultural exchange is essential

Subtitling / Captioning

- Standardization? What kind of?
 - ➔ Future with automatic subtitling?
 - Utopia or nightmare?
 - This technology will prevail, though not for all kinds of programs

Subtitling / Captioning

- Requirements for television
 - ➔ Profile-less recognition
 - ➔ Punctuation
 - ➔ Minimal delay for live programs and sync for prerecorded programs

Subtitling / Captioning

■ Other issues

- ➔ For live or prerecorded programs?
- ➔ Who takes responsibility for wrong recognition?
Can anyone intervene in an emergency?
- ➔ Difference between what is said and written
- ➔ Verbatim at any price?

Subtitling / Captioning

- Existing service, mainly for
 - ➔ secret services and media supervision
- Recognition
 - ➔ is getting better
 - ➔ even surprisingly good

Subtitling / Captioning

- So, why haven't we used this service so far?
 - ➔ Results are hardly legible
 - ➔ Post-editing too time-consuming
 - ➔ Punctuation mostly missing or wrong
 - ➔ Suppliers are not confident with subtitling requirements

Subtitling / Captioning

- For what kind of programs?
- Our decision
 - ➔ Only for prerecorded programs
 - ➔ Only for non-fictional programs
 - ➔ Post-editing is mandatory
 - ➔ Savings have to be relevant
- Other countries use automatic subtitling for live coverage!
- Same for video portal

Subtitling / Captioning

- Mutual interdependency
 - ➔ They have the technology
 - ➔ We have the contents

Subtitling / Captioning

■ SAVAS

- ➔ Sharing audiovisual language resources for Automatic subtitling
- ➔ Funded by the EU research fund
- ➔ 4 countries, 6 languages
- ➔ 200 hours per language annotated
- ➔ Duration: 2 years

Subtitling / Captioning

■ SAVAS

- ➔ Better positioning of European broadcasters and subtitling companies
- ➔ Better accessibility for target groups
- ➔ Linked with translation: export locally produced contents for a global market
- ➔ Making subtitles more affordable

Subtitling / Captioning

- Why do we participate?
 - ➔ We'll get an appropriate database for our own content
 - ➔ Well thought-out export-filter for
 - good legibility
 - efficient post-editing

Subtitling / Captioning

- Final questions 1
 - ➔ Which kind of programs are suitable?
 - Also for live/near live programs?
 - Also for fictional programs?
 - ➔ Savings
 - Recognition and post editing
 - ➔ Impact for working places

Subtitling / Captioning

- Final questions 2
 - ➔ Consequences for the stylebook?
 - ➔ Can punctuation be used to set new captions?

Subtitling / Captioning

■ Conclusions

- ➔ For traditional subtitling, an ongoing cultural exchange is essential
- ➔ Automatic subtitling will help to accelerate the processes but it's not the solution for any kind of program