

Telecom relay services: Practical challenges and standards

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Telecom Relay Services

- “Telecommunications relay services (TRS) are essential telecom services that enable persons who have hearing or speech disabilities, and who otherwise would be unable to engage in voice telecommunications, to make voice telephone calls to other persons, using four common types of relay services: text relay; video relay; captioned telephone service relay; and speech-to-speech relay. “(*
- A way for a Deaf and Hard-of-Hearing to communicate (using voice) with a hearing person in another location
- “Voice” is mediated by CA (Communication Assistant)

(* Text From “Accessible Europe 2019”



What is a typical Telephone Relay Service?



- A way for a Deaf and Hard-of-Hearing to communicate (using voice) with a hearing person in another location
- “Voice” is mediated by CA (Communication Assistant)

Focus in this talk

- We concentrate on the following themes:
 - Functional Equivalency of Services
 - Professionalism of Communication Assistance

Accessibility in UN-CRPD

- Article 9: States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others to information and communications, including information and communications technologies (ICT) and systems

Functional Equivalency

- The capability to which persons with disabilities are able to use a communication service or system with a level of offered functions and convenience-of-use that is similar to those offered to the wider group of users in a population.
- implies that the users of relay services would not be at a disadvantage compared to the calling options available to the mainstream

Functional equivalency (cont.)

- Functional equivalency implies that the D/HOH users would not be at a disadvantage compared to the mainstream user so that:
 - No restriction on the types of calls (incl. emergency, e.g., 911, 112, etc.; real-time, bi-directional)
 - No restriction on the hours with relay services operation (24/7)
 - Not incurring extra costs
 - No restriction on the types of equipment
 - No specific complication on call set-up methods
 - ...



Emergency: 112 for All?

Deaf included?

- 112 is the European emergency number, available free of charge, 24/7, anywhere in the European Union.
- Citizens can dial 112 to reach the emergency services, including the police, emergency medical services and the fire brigade.
- The European Union of the Deaf (EUD) asked the following question (in 2014):
 - Has the Commission assessed what action may be necessary to include deaf people as full users of the emergency services in each Member State of the Union?



EU's call for Inclusive Emergency Call

In its answer to this Written Question from EUD, the Commission stated that

- ‘the EU regulatory framework on electronic communications requires Member States to ensure that access to emergency services for disabled end-users is equivalent to that enjoyed by other users’.
- Consequently, ‘it is the Member States that are responsible, under the principle of subsidiarity, for putting in place the technology and organisation to allow equivalent access to 112 calls for disabled end-users’.



EU Member states with TRS (with 112?)*

1. Austria,
2. Belgium,
3. Bulgaria,
4. Croatia,
5. Republic of Cyprus,
6. Czech Republic,
7. Denmark,
8. Estonia,
9. Finland,
10. France,
11. Germany,
12. Greece,
13. Hungary,
14. Ireland,
15. Italy (?),
16. Latvia,
17. Lithuania,
18. Luxembourg,
19. Malta,
20. Netherlands,
21. Poland,
22. Portugal,
23. Romania,
24. Slovakia,
25. Slovenia,
26. Spain,
27. Sweden
28. the UK.

* As of 2018



Standard: ITU-T Recommendation F.930: Multimedia Telecommunication Relay Service

- Provides the framework and background of TRS
- Describes current widely available service types
 - Provision of emergency calls,
 - Professional requirements on CA
 - Training of CA
- Functional Equivalency of Relay Service emphasized
- Clear definition of the role of CA
- The world's newest standard on Relay Service
- It would be a good framework to be adopted by EU for (e.g.) 112 for Deaf and Hard of Hearing people



Importance of CA

- In TRS, Communication Assistance (CA) mediates between the D/HOH caller and a hearing caller
- CA may use automatic speech recognition (ASR) to facilitate captioning
 - The technique called “Re-speaking” is often used
- Accuracy of captioned text is essential
 - Standard on quality of CA is important
- Despite the advancement of ASR, it cannot surpass or replace human CA yet

(Ex. of) Professional Code of Conduct for CA

- **Accuracy and Completeness**: CA shall render a complete and accurate interpretation without altering, omitting, or adding anything to what is spoken, written or signed.
- **Impartiality and Avoidance of Conflicts of Interest**: CA shall be impartial and unbiased. CA shall refrain from conduct that may give the appearance of bias and shall disclose any real or perceived conflict of interest.
- **Confidentiality**. CA shall protect from unauthorized disclosure all privileged or other confidential communications or information obtained while acting in a professional capacity.

Nothing about us without us

- *Nihil de nobis, sine nobis*
 - the long-standing basic principle of democracy
- Deaf and Hard of Hearing People (or PWD in general) are NOT “incapacitated”, who cannot make responsible decisions and who need “guardians” to be “protected”
- In particular, a CA in TRS should NOT act as a “guardian” who makes decisions for Deaf and Hard of Hearing people, editing and modifying exchanges during a TRS call to make them more “understandable”

Conclusion

- Telephone Relay Service (TRS) is the only way Deaf and Hard of Hearing people to make voice telephone calls
- It an essential part of Accessible telecommunication for an inclusive society.
- Functional Equivalency in TRS, esp. access to an Emergency call (112) is essential
- CA (Communication Assistant) who mediates “Voice” is an important part of TRS, to guarantee “accuracy”, etc.
- ITU-T F.930 the new standard giving these important aspects of TRS
- ITU-T F.930 will be a good framework for TRS in EU.



- Thank you!!

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