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In the Matter of

Telecommunications Relay Services
and Speech-to-Speech Services for
Individuals with Hearing and Speech
Disabilities

CC Docket No. 98-67

COMMENTS OF MISSOURI ASSISTIVE TECHNOLOGY COUNCIL AND PROJECT

On behalf of the Missouri Assistive Technology Council and Project, we file these comments in regard to the FCC's Notice of Proposed Rulemaking for improvements in Telecommunications Relay Services, Docket No. 98-67. The mission of the Missouri Assistive Technology Council and Project is to advocate for increased access to assistive technology for Missourians of all ages with all types of disabilities. Access to comprehensive, quality telecommunications relay services is critical to the productivity and independence of people with hearing and speech disabilities in Missouri and throughout the country. In an attempt to assure access to comprehensive, quality relay services, we provide comments including recommendations that the FCC should:

1) Adopt an accuracy of information transfer standard for STS relay services.

2) Adopt CA competency standards and allow for variation from operational policies for traditional TRS services that will assure delivery of quality STS services (i.e. those that meet the established accuracy of information transfer standard).

3) Assure access to emerging technologies such as voice-menu systems either through TRS services or through product accessibility via Section 255 requirements.

We thank you for the opportunity to share these comments.

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Speech-to-Speech (STS)

We support the decision of the FCC to include speech-to-speech (STS) relay service within the range of required TRS services. However, we support this requirement on the condition that adequate safeguards will be added to the FCC rulemaking to assure the quality of this service, specifically a level of accuracy of information transmission sufficient to assure successful communication outcomes.

As the FCC points out, STS is a substantially different service from traditional TRS services. Traditional TRS services transform information from text-to-speech and/or speech-to-text. Speech-to-speech instead transforms "difficult to understand" speech into "easy to understand" speech. As a result, the knowledge and competencies required of individuals providing STS services is very different from those needed to provide traditional TRS services. In our opinion, it will much more challenging for TRS providers to recruit and adequately train STS communication assistants than traditional text-to-speech/speech-to-text communication assistants.

To provide STS relay services with a high level of accuracy of information exchange, the STS communication assistant will need to be able to understand the speech of individuals with a wide variety and degree of speech disabilities. Such disabilities would include, but not be limited to:

> individuals with motor-based speech production disabilities such as paralysis or cerebral palsy;
> individuals with neurologically based speech production disabilities which may result in inconsistent speech patterns;
> individuals whose speech is dysfluent;
> individuals with voice disabilities (e.g. limited intensity, resonance, etc.);
> individuals with expressive language disabilities (e.g. difficulty with word finding, information sequencing, repetition of words, etc.);
> individuals with speech differences due to hearing loss (e.g. those who use amplified speech rather than text and do not use traditional TRS services.}

If STS is to provide accurate information transfer for individuals with all types and degrees of speech disabilities, the STS communication assistant (CA) will need to have the knowledge, skills, and ability to understand (over the telephone with no visual cues) the speech and language of individuals with all types of speech production and expressive language disorders.

As a result of these challenges to providing quality STS services, we provide the following suggestions:

1. The FCC should clearly define and describe the exact scope of the required STS service. What is the expected accuracy of information transfer from "difficult to understand" to "easy to understand"? The proposed definition of STS refers to "functionally equivalent communication" per ADA language that formed the basis for traditional TRS services. Is the expected accuracy of information transfer for STS comparable to traditional TRS services (e.g. close to "word-for-word")? Or is it more like foreign language or ASL interpreting where the accuracy is expected to be "conceptually accurate" especially where word-for-word translation is not appropriate given different language structures? Or does the FCC envision a lesser standard, such as the "general concept" or the "maximum amount of information possible" will be conveyed, as meeting the functionally equivalent communication benchmark?

The proposed definition of CA uses the term "transliteration" to describe the transfer of information. This term typically implies a word-for-word or very similar level of information transfer. The term "interpretation" usually implies a more conceptual transfer of information. Thus the definition of CA infers that the CA will provide a literal transfer of information from the person with a speech disability to the other party. If this is not intended, then the FCC should revise the definition of CA or add specific CA definition for STS.

Without clarification of the standard, we are concerned that consumers will be confused as to what to expect from the STS service. Can an individual with speech that is unintelligible, even to familiar listeners, call the STS relay and expect accurate word-for-word transfer of information? If not, then the service that they can expect should be clearly communicated to prevent program complaints caused by inaccurate expectations.

In establishing the accuracy of information transfer standard, the FCC may wish to consider what is technically feasible given the research available regarding understanding the speech of individuals with communication disabilities. The FCC may also want to carefully analyze existing training methods and materials available to develop an effective "speech transliterator". If such materials and methods are available, what is the mean accuracy rate of individuals completing such training. Is their accuracy rate different when transliterating for individuals with varying types of speech disabilities and varying degrees of intelligibility? Is their accuracy comparable to that of CA's who provide speech-text transliteration?

2. The FCC should describe and require the specific knowledge, training, and discreet competencies needed by CA's providing STS service to assure delivery of the accuracy of information transfer determined above. If the accuracy standard for STS is equal to that for traditional TRS services, then the knowledge and competency of the CA is much more complex and difficult to measure than that of a CA

transforming text-to-speech and speech-to-text. Even if the standard is somewhat lesser, the competencies for STS communication assistants are so different that we believe federal direction is required to assure appropriate quality.

Anyone who has used current TRS services, has encountered a CA with minimal keyboarding skill and speed, whose limited competence makes the communication process slow and laborious. While this is annoying, the communication can usually still take place. With STS, a CA with limited skills will not be able to transfer information accurately enough to allow communication to occur at all for some consumers. If communication cannot occur, the limited skill of the CA is not just annoying, it is worse than having no service at all.

The FCC proposes to not establish any quantitative standard for keyboarding for CA's providing text/speech transliteration because it could "harm TRS users by constraining the labor pool for CA's". This clearly indicates that TRS providers are having difficulty assuring that CA's have adequate skills in an area like keyboarding that is fairly easy to teach and test. It also communicates a philosophy of a poor service is better than nothing. For STS, a poor service may very well be worse than nothing if the consumer has wasted time and energy on a call with no communication outcome.

We feel very strongly that the FCC must provide specific requirements regarding CA competency if massive communication errors are to be avoided. Please note that the FCC does proposes to require competency standards for interpreters used for VRI services; "In the interest of protecting users of voluntarily-provided VRI services from the risk of communication errors caused by the use of unqualified interpreters, we propose to incorporate the definition of "qualified interpreter." We feel the FCC must do the same to protect users of STS.

'3. The FCC should clarify the differences in operational policies and consumer interaction protocols that will need to be in place for STS as compared to traditional text-to-speech TRS services. STS communication assistants, in many cases, will not be able to be "invisible" transformers of information. They will instead need to be highly interactive with the individual with a speech disability to verify understanding of the content of their communication.

Two factors are typically cited as critical to understanding individuals with speech disabilities. The first is the degree to which the listener is familiar with the individual's speech and the second is the degree to which contextual cues are available. While these factors are not ones that can be augmented easily by a STS provider given the nature of relay services, we suggest that the FCC consider methods by which STS providers could increase CA familiarity with the caller's speech and

protocols that could be used to define the context of the call prior to initiating contact with the third party.

Access to Enhanced Services

The FCC indicates that their charge under ADA does not allow them to mandate access to enhanced service such as voice-menu systems. We agree with the many commenters who noted that the lack of access to these enhanced services is formidable for individuals who use TRS. We also note that many commenters indicated that the responsibility for access to these services should rest with the provider of the enhanced service as an ADA Title II or Title III covered entity by making the service available via direct TTY. While we agree with this logic on the surface, the reality is that same or similar voice-menu products are not available in TTY format. The alternative left to the ADA covered entity is offering a live person or message call-back via TTY, not the same menu service. This is inherently inequitable and not the option individuals with disabilities desire.

We suggest the FCC re-examine their tentative conclusions regarding Section 255 of the Telecommunications Act and require product accessibility for enhanced services such as voice-menu systems. If the accessible products were available, then the ADA covered entities could be expected to procure those products and provide direct TTY access to the service. If Section 255 does not apply to enhanced services and related products such as voice-menu systems, then TRS should provide access. Quite simply, if accessible products are not required and the TRS does not provide access, individuals with disabilities either have no access to the service or have access to a different service that is not equitable.

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