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**Engelke et al.**(10) **Pub. No.: US 2023/0231949 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **SEMI-AUTOMATED RELAY METHOD AND APPARATUS**(71) Applicant: **ULTRATEC, INC.**, Madison, WI (US)(72) Inventors: **Robert M. Engelke**, Madison, WI (US); **Kevin R. Colwell**, Middleton, WI (US); **Christopher R. Engelke**, Verona, WI (US)(21) Appl. No.: **18/123,557**(22) Filed: **Mar. 20, 2023****G10L 15/26** (2006.01)**H04W 4/12** (2006.01)**H04W 4/16** (2006.01)**G10L 21/10** (2006.01)**G10L 15/01** (2006.01)(52) **U.S. Cl.**CPC ..... **H04M 3/42391** (2013.01); **G10L 15/06**(2013.01); **G10L 15/22** (2013.01); **H04M****1/2475** (2013.01); **H04M 1/72478** (2021.01);**G10L 15/26** (2013.01); **H04W 4/12** (2013.01);**H04W 4/16** (2013.01); **G10L 21/10** (2013.01);**G10L 15/01** (2013.01); **H04M 3/53366**

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(57)

**ABSTRACT**

A call captioning system for captioning a hearing user's (HU's) voice signal during an ongoing call with an assisted user (AU) includes: an AU communication device with a display screen and a caption service activation feature, and a first processor programmed to, during an ongoing call, receive the HU's voice signal. Prior to activating the caption service via the activation feature, the processor uses an automated speech recognition (ASR) engine to generate HU voice signal captions, detect errors in the HU voice signal captions, use the errors to train the ASR software to the HU's voice signal to increase accuracy of the HU captions generated by the ASR engine; and store the trained ASR engine for subsequent use. Upon activating the caption service during the ongoing call, the processor uses the trained ASR engine to generate HU voice signal captions and present them to the AU via the display screen.

