IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s):	Athanasios Katsamanis et al.	Art Unit :	4114
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RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF UNDER 37 CFR 41.37

In response to the Notice of Non-Compliant Appeal Brief mailed July 28, 2021, attached hereto is a replacement "Summary of Claimed Subject Matter" section that references all independent claims by page and line number to the original specification as filed.

No fees are believed to be due. However, please apply any charges or credits to Deposit Account No. 50-4189, referencing Attorney Docket No. 30226-002001.

Respectfully submitted,

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(5) Summary of Claimed Subject Matter

CLAIM 1

Claim 1 is directed to a method for aiding a multi-party interaction. As an example, such a multi-party interaction may be between an agent and a customer in a telephony-based customer service situation (see, e.g., p. 6, lines 10-18; this and further references are to the Specification as filed in the record). The parties have successive communication events, for example, successive turns in a dialog between parties (e.g., see claim 2, p. 21, lines 10-11), or as an alternative example, the method may be applied at the scale of successive separate telephone calls (i.e., dialogs) where each communication event is one call rather than one turn within a single conversation (see, e.g., claim 3, p. 21, lines 12-13). In any case, the method includes acquiring signals corresponding to the successive events (e.g., "The recommender 120 … monitors the interactions … between the parties 101, 102 over the communication link 130", p. 7, lines 3-5) and processing them to generate a recommendation (e.g., "The recommender 120 … generates the recommendation information 130", p. 7, lines 3-6) in an innovative manner.

There are two distinct steps or stages in how the recommendation is generated. In the first (corresponding to the recited "*processing … one or more of the successive communication events to produce one or more respective feature vectors forming a sequence of feature vectors…*" of claim 1) one or more of these feature vectors are generated to include at least one behavioral profile indicator (e.g., "This representation includes components that represent behavioral profile values for the agent and/or the customer" p. 9, lines 13-14). Support for this step is found at least at paragraphs p. 9, line 11 – p. 12, line 8, and Figure 4 (reproduced below). For example, each communication event corresponds to one of the w_i in the figure, and the feature vector corresponding to that event is Y_i, which contains behavioral profile values $y_{i,k}$, as discussed at p. 9, lines 1-21, and p. 10, line 15 – p. 11, line 5.

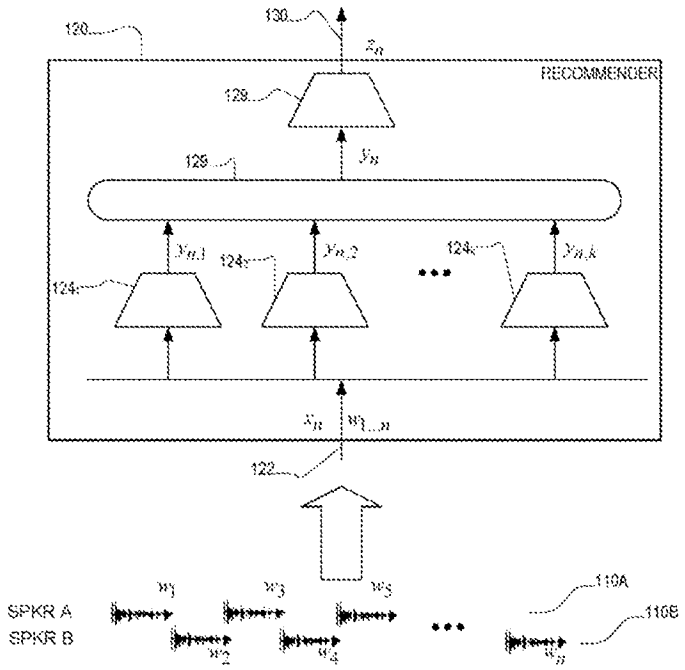

FIG. 4

In the second step or stage (corresponding to the claim step of "*processing the sequence of feature vectors with a second neural network to generate the recommendation for presenting to at least one of the parties in the interaction*"), it is the successive feature vectors that are processed to produce the recommendation, for example, as described at p. 10, line 15 – p. 11, line 15. For example, the system's recommendation z_m after the mth event is based on the feature vectors of all the events up to that point, Y_1 through Y_m. The classifier 129 may be implemented as a recurrent neural network were the recommendation z_m is based on the sequence of feature vectors by virtue of it being recurrent. The first step or stage uses one or more neural networks distinct from a second neural network used in the second step or stage (e.g., see p. 9, line23 – p. 10, line 3).

The recommendation is presented to at least one of the parties, for example, being presented to an agent in a customer-agent conversation (see, e.g., p. 9, lines 3-6)

CLAIM 13

Claim 13 is directed to a non-transitory medium comprising instructions stored thereon. Support for the steps performed by the instructions when executed is the same as the support for the method of claim 1 as set forth above. Support for the implementation in software is found at least at p. 20, lines 11-16.

CLAIM 14

Claim 14 is directed to a system comprising an input, an output, and a data processor. Support for the steps performed by the data processor is the same as the support for the method of claim 1. Support for the recited input and output includes at least the communication device 111 and display device 122, respectively, as shown in FIG. 1 and discussed at p. 6, lines 10-18.