SYSTEMS AND METHODS FOR BOT SELECTION CALIBRATION IN TWO-WAY COMMUNICATIONS

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present patent application claims the priority benefit of U.S. provisional patent application number 63/131,434 filed December 29, 2020, the disclosures of which are incorporated by reference herein.

FIELD

[0002] The present disclosure relates generally to facilitating two-way communications. More specifically, techniques are provided to dynamically identify bots or similar automated support systems to improve the content in a two-way communication, and to transfer messaging between a network device and a terminal device to a bot and to track performance of the bot during automation.

BACKGROUND

[0003] Clients often use telephony systems and/or network-based chat systems to field communications from users seeking assistance with products or services. Communication systems that support such user interactions may allow users to speak or chat with a live representative of the client. Such communication systems may additionally or alternatively use automated bot systems for two-way interactions with users.

SUMMARY

[0003a] According to a first aspect of the present disclosure, there is provided a computer-implemented method including: receiving input data as part of a two-way communication session, wherein the two-way communication session is associated with a plurality of bots; accessing a first confidence score associated with a first bot and the input data, wherein the first confidence score is generated by a first analysis of the input data by the first bot, and wherein the first analysis heterogeneously represents a first association strength between the first bot and the input data; accessing a second confidence score associated with a second bot and the input data, wherein the second confidence score is generated by a second analysis of the input data by the second bot, and wherein the second analysis heterogeneously represents a second association strength between the second bot and the input data; generating mapped scores for the plurality of bots, including at least a first mapped score associated with the first confidence score and a second mapped score associated with the second confidence score, wherein the mapped scores are generated by analyzing at least the first confidence score and the second confidence score using a bot score mapper to calibrate heterogeneous confidences scores received from the plurality of bots; identifying a selected bot of the plurality of bots based on the mapped scores; and facilitating the two-way communication session using the selected bot.

[0003b] According to a second aspect of the present disclosure, there is provided a system, including: a memory; and one or more processors coupled to the memory, the one or more

processors configured to perform operations including: receiving input data as part of a two-way communication session, wherein the two-way communication session is associated with a plurality of bots; accessing a first confidence score associated with a first bot and the input data, wherein the first confidence score is generated by a first analysis of the input data by the first bot, and wherein the first analysis heterogeneously represents an association strength between the first bot and the input data; accessing a second confidence score associated with a second bot and the input data, wherein the second confidence score is generated by a second analysis of the input data by the second bot, and wherein the second analysis heterogeneously represents an association strength between the second bot and the input data; generating mapped scores for the plurality of bots, including at least a first mapped score associated with the first confidence score and a second mapped score associated with the second confidence score, wherein the mapped scores are generated by analyzing at least the first confidence score and the second confidence score using a bot score mapper to calibrate heterogeneous confidences scores received from the plurality of bots; identifying a selected bot of the plurality of bots based on the mapped scores; and facilitating the two-way communication session using the selected bot.

[0003c] According to a third aspect of the present disclosure, there is provided a non-transitory computer readable medium including instructions that, when executed by one or more processors of a device, cause the device to perform operations including: receiving input data as part of a two-way communication session, wherein the two-way communication session is associated with a plurality of bots; accessing a first confidence score associated with a first bot and the input data, wherein the first confidence score is generated by a first analysis of the input data by the first bot, and wherein the first analysis heterogeneously represents an association strength between the first bot and the input data; accessing a second confidence score associated with a second bot and the input data, wherein the second confidence score is generated by a second analysis of the input data by the second bot, and wherein the second analysis heterogeneously represents an association strength between the second bot and the input data; generating mapped scores for the plurality of bots, including at least a first mapped score associated with the first confidence score and a second mapped score associated with the second confidence score, wherein the mapped scores are generated by analyzing at least the first confidence score and the second confidence score using a bot score mapper to calibrate heterogeneous confidences scores received from the plurality of bots; identifying a selected bot of the plurality of bots based on the mapped scores; and facilitating the two-way communication session using the selected bot.

[0004] The term embodiment and like terms are intended to refer broadly to all of the subject matter of this disclosure and the claims below. Statements containing these terms should be understood not to limit the subject matter described herein or to limit the meaning or scope of the claims below. Embodiments of the present disclosure covered herein are defined by the claims below, not this summary. This summary is a high-level overview of various aspects of the disclosure and introduces some of the concepts that are further described in the Detailed Description section below. This summary is not intended to identify key or essential features of the claimed subject matter, nor is it intended to be used in isolation to determine the scope of the