CLAIMS

What is claimed is:

1. A method, comprising:

enabling a developer, by a first server comprising at least one processor and a memory storing processor-executable codes, to create a developer profile through interaction of the developer with a platform interface, wherein the developer profile links a custom dialog system engine of the developer with a dialog system interface;

receiving, by the first server, multiple example phrases provided by the developer through the platform interface;

determining, by the first server, based on the example phrases:

one or more dialog system entities implied in the example phrases, and

one or more dialog system intents implied in the example phrases;

associating, by the first server, the one or more dialog system entities with the one or more dialog system intents to form the custom dialog system engine that is associated with the dialog system interface;

after forming the custom dialog system engine, receiving, by the first server or a second server, a user request from the dialog system interface, wherein the dialog system interface is installed on a user device or a third server;

identifying, by the first server or the second server, the dialog system interface based on the user request;

based on the identification of the dialog system interface, activating, by the first server or the second server, the custom dialog system engine and retrieving the one or more dialog system entities and the one or more dialog system intents;

processing, by the first server or the second server, the user request by applying the one or more dialog system entities and the one or more dialog system intents; and

generating, by the first server or the second server, a response to the user request based on the processing and sending the response to the dialog system interface.

2. The method of claim 1, wherein the one or more dialog system entities include one or more of the following: a keyword and at least one synonym to the keyword, a keyword and at least one definition of the keyword, and a list of keywords defining objects of one class.

3. The method of claim 1, wherein the one or more dialog system intents include one or more of the following: a dialog system interaction scheme, a rule defining a relation between a user request and a dialog system response, and a rule of relationship between a particular action and the one or more dialog system entities.

4. The method of claim 1, further comprising creating, by web tools of a platform interface, the one or more dialog system entities and the one or more dialog system intents based on a developer input.

5. The method of claim 1, wherein the identification is based on an identifier of the dialog system interface, the identifier accompanying the user request.

6. The method of claim 1, further comprising displaying the response to the user.

7. The method of claim 1, further comprising playing back the response to the user.

8. The method of claim 1, further comprising:

pre-processing the user request to recognize one or more spoken words, wherein the user request includes a voice input; and

transforming the voice input into text input.

9. A system, comprising:

a dialog system interface installed on a first server or a user device;

a platform deployed on a second server and configured to:

enable a developer to create a developer profile through interaction of the develop with a platform interface, wherein the developer profile links a custom dialog system engine of the developer with the dialog system interface;

receive multiple example phrases provided by the developer through the platform interface;

determine, based on the example phrases:

one or more dialog system entities implied in the example phrases, and

one or more dialog system intents implied in the example phrases;

associate the one or more dialog system entities with the one or more dialog system intents to form the custom dialog system engine that is associated with the dialog system interface;

after forming the custom dialog system engine, receive a user request from the dialog system interface;

identify the dialog system interface based on the user request;

based on the identification of the dialog system interface, activate the custom dialog system engine and retrieve the one or more dialog system entities and the one or more dialog system intents;

process the user request by applying the one or more dialog system entities and the one or more dialog system intents to the user request; and

generate a response to the user request based on the processing and send the response to the dialog system interface.

10. The system of claim 9, wherein the user request is accompanied with an identifier of the dialog system interface for the identification.

11. The system of claim 9, wherein the platform is further configured to display the response to the user.

12. The system of claim 9, wherein the platform is further configured to playback the response to the user.

13. The system of claim 9, wherein the custom dialog system engine includes an Automatic Speech Recognizer (ASR), a Natural Language Processing (NLP), a dialog manager, and an output renderer.

14. The system of claim 13, wherein the ASR is configured to:
receive speech-based user inputs; and
process the speech-based user inputs into a sequence of parameter vectors.

15. The system of claim 13, wherein the ASR includes one or more of the following: a pattern-based speech recognizer, a free-dictation recognizer, an address book based recognizer, and a dynamically created recognizer.

16. The system of claim 13, wherein the NLP is configured to:
disassemble recognized input received from the ASR;
parse the recognized input to produce utterances;

analyze the utterances utilizing one or more of the following: morphological analysis, part-of-speech tagging, shallow parsing; and

map the recognized input or one or more parts of the recognized input to meaning representations.

17. The system of claim 13, wherein the dialog manager is configured to:

communicate with external resources;

process recognized input using one or more of the following: discourse analysis, knowledge database query, and system action prediction based on discourse context; and

select an action based on the processing and analysis of the NLP.

18. The system of claim 13, wherein the output renderer is configured to:

transform action selected by the dialog manager into output, wherein the output includes an operation, a text message, an image, and a video message.

19. A non-transitory processor-readable medium having instructions stored thereon, which when executed by one or more processors, cause the one or more processors to implement a method, comprising:

enabling a developer to create a developer profile through interaction of the developer with a platform interface, wherein the developer profile links a custom dialog system engine of the developer with a dialog system interface;

receiving multiple example phrases provided by the developer through the platform interface;

determining, based on the example phrases:

one or more dialog system entities implied in the example phrases;

one or more dialog system intents implied in the example phrases;

associating the one or more dialog system entities with the one or more dialog system intents to form the custom dialog system engine that is associated with a dialog system interface;

after forming the custom dialog system engine, receiving a user request from a dialog system interface, wherein the dialog system interface is installed on a user device or a third server;

identifying the dialog system interface based on the user request;

based on the identification of the dialog system interface, activating the custom dialog system engine and retrieving the one or more dialog system entities and the one or more dialog system intents;

processing the user request by applying the one or more dialog system entities and the one or more dialog system intents; and

generating a response to the user request based on the processing and sending the response to the dialog system interface.