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Generative AI Based Adaptive Welcome Messages for Business Chat

ABSTRACT

Chats with a business entity typically include a welcome message that introduces the entity and sets the tone for the conversation. A well-written welcome message can improve customer satisfaction and can lead to improved outcomes such as higher sales. However, drafting customized welcome messages on an ongoing basis can be time consuming and is a creative challenge. This disclosure describes techniques to automatically generate suggestions for welcome messages using suitable artificial intelligence techniques, such as generative AI models. The generated suggestions are presented to entities such as businesses/merchants that implement online chat functionality. The suggestions are customized for each entity and take into account data about the entity such as current inventory, new merchandise, offers, etc. and contextual factors such as date, time, etc. Updated data about a business may be provided by the business or may be obtained automatically, e.g., by a search engine or large language model (LLM) that analyzes the business website or app, or other data sources about the business. The model may be tuned to include specific kinds of information in the output generated messages.

KEYWORDS

- Generative AI
- Business Chat
- Welcome message
- Customized message
- Adaptive message
- Chatbot
- Message through rate

BACKGROUND

Many websites and applications include features that allow users to chat with a chatbot/human service agent. The chatbot can surface when a user visits the website or app, and usually includes a welcome message. The message introduces the merchant and their business, and sets the tone for the conversation. A well-written welcome message can improve customer satisfaction and can lead to improved outcomes such as higher sales.

Merchants that use custom welcome messages may see an increase in the number of customers that respond to their chats (message through rate). However, drafting customized welcome messages on an ongoing basis can be time consuming and is a creative challenge.

DESCRIPTION

Per techniques of this disclosure, suggestions for welcome messages are automatically generated using suitable artificial intelligence techniques, such as generative AI models. The generated suggestions are presented to entities such as businesses/merchants that implement online chat functionality. The suggestions that are customized for each entity. For example, the distinct attributes of each entity's commercial activities may be taken into account by providing those as inputs to a generative model. For example, prominent holidays may correspond to special operational statuses for some establishments, which can be provided as input to a generative model such that generated welcome messages reflect the specifics of these periods. Other inputs can include updates to a merchant's inventory, price discounts on certain categories, etc. for highlighting in customized welcome messages by connecting appropriate data sources to the generative model, with access permissions from the merchant. A feedback mechanism can be provided to enable business owners to approve customized messages, suggest improvements, etc. if necessary.

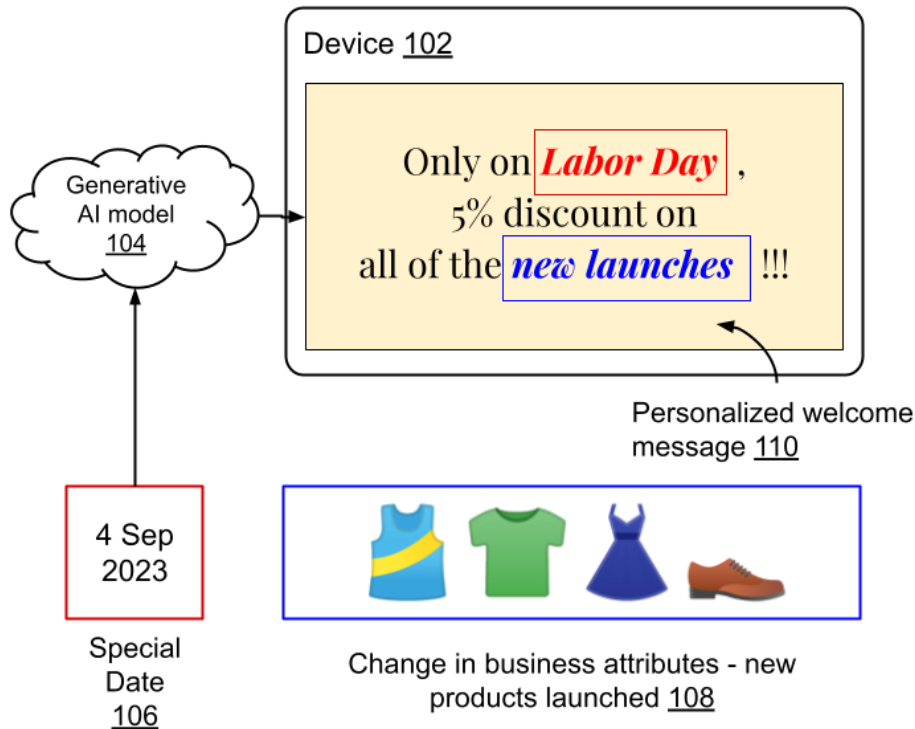


Fig. 1: AI-generated adaptive welcome messages for business chats

Fig. 1 shows an example of AI-generated adaptive welcome messages. The welcome messages can be used to initiate business chats with current or prospective customers. A customer visits an online property, e.g., website or app, of the business via their device (102). A chat may be initiated automatically upon the visit, or the user may initiate the chat. Upon detecting the customer visit, a generative AI model (104) is triggered to generate a welcome message. Contextual information such as a current or upcoming special date (106), e.g., a holiday (“Labor Day”) is provided as input to the model. Further, business attributes, including recent changes such as new products launched (108) are also provided to the model.

Based on the inputs, the model generates a welcome message (110) that is provided in the chat. In the example of Fig. 1, the day of visit is prior to or on Labor Day which is associated with a discount. The generated message includes these details, based on the inputs provided to the model. Generated welcome messages associated with particular dates may automatically

expire when that date is no longer relevant. Further, the generated message may highlight that new products have been launched recently based on the changes in business attributes provided as input. The generative AI model may be provided contextual factors and business attributes as part of a prompt. The model may be tuned to include specific kinds of information in the output generated messages. In this manner, the generated message can highlight important factors that drive customer engagement.



Fig. 2: Generative AI based adaptive welcome messages for business chats

Fig. 2 shows an example of generative AI based adaptive welcome messages for business chats. Conventionally, businesses may use a small set of default welcome messages, e.g., "Hi, how can we help you today?" Per techniques of this disclosure, a generative AI model can generate custom welcome messages adapted based on contextual factors (e.g., date, time, etc.) as

well as business attributes. In the example of Fig. 2, the custom welcome message is “Hi there! Welcome to Abhinav Fashions Sundale! We’re excited to announce our new collection of Kanjivaram silk sarees, handwoven in Kanchipuram, India. Come see the intricate designs and luxurious fabrics today!” The custom message includes information about new items in the seller’s inventory, which can result in greater customer engagement.

Updates about the business may be provided by the business or may be obtained automatically, e.g., by a search engine or large language model (LLM) that analyzes the business website or app, or other data sources about the business. Upon detection of updates, the business may be alerted to update their welcome message. The AI generated welcome message may be vetted and/or edited by the business prior to being displayed to customers. The business can view and select from multiple generated messages. The business can also be prompted to provide feedback about the message. A suitable disclaimer with helpful links about how the messages are generated could be displayed below the customized welcome message.

The described techniques can be used in any business chat application, or by shopping application, website, etc. where customer interaction is performed via chat. The chat itself may be hosted within the business website/app or may be over text messages, or over-the-top (OTT) messaging applications.

CONCLUSION

This disclosure describes techniques to automatically generate suggestions for welcome messages using suitable artificial intelligence techniques, such as generative AI models. The generated suggestions are presented to entities such as businesses/merchants that implement online chat functionality. The suggestions are customized for each entity and take into account data about the entity such as current inventory, new merchandise, offers, etc. and contextual

factors such as date, time, etc. Updated data about a business may be provided by the business or may be obtained automatically, e.g., by a search engine or large language model (LLM) that analyzes the business website or app, or other data sources about the business. The model may be tuned to include specific kinds of information in the output generated messages.