



Hakuhodo, DAC collaborate to conduct auto-answer questionnaire surveys on LINE using a conversation engine

Enables development of conversation engine-based marketing tools

Tokyo—November 6, 2015—Hakuhodo Inc. (Minato-ku, Tokyo; Hirokazu Toda, President & CEO), Japan's second largest advertising company, has developed a conversation engine that can be used as a marketing tool. Provision of marketing services that can be used with official LINE accounts by linking the engine with DialogOne (see Note 1), a service of D.A. Consortium Inc. (Shibuya-ku, Tokyo; Hirotake Yajima President & CEO ("DAC")) that works with LINE Business Connect (see Note 2), has also begun.

The Hakuhodo-developed conversation engine interfaces with smartphone-based messenger apps, web services and IoT devices via the Internet, allowing development of apps that respond automatically to user queries. Provision of functionality that allows automatic questionnaire surveying on official LINE accounts, which some clients already operate, has already begun.

Hakuhodo Inc. established a fully owned subsidiary, Spontena LLC (representative partner: Hakuhodo Inc.), to develop conversation engines in 2013. Spontena and US firm Pandorabots, Inc. (http://www.pandorabots.com) have partnered to develop conversation engines and related business in Japan and Asia, with work on these areas already underway.

Example use of the conversation engine on LINE

Hakuhodo provided existing clients with a questionnaire-based interactive response system for use with their official LINE accounts. By linking Hakuhodo subsidiary Spontena's conversation engine with DAC's DialogOne, we were able to realize conversation engine-based response functionality was successfully achieved on LINE.

The conversation engine interacts directly with LINE users, and is able to learn about their favorite products, places to shop, etc. through natural conversation. The system also enables the databasing of information obtained from these conversations. Unlike traditional questionnaires, lines of questioning can be changed flexibly depending on a user's responses, enabling the acquisition of deeper user insights.

For Example:

Conversation bot: What's your favorite animal?

User: I don't know

Conversation bot: Have you ever had a pet?

This exchange shows that even when it is not possible to elicit an answer to a specific



question from a user, continuing the conversation enables further exploration of user insights.

As part of this initial endeavor, around 8,000 LINE users were polled with a questionnaire survey, with a response rate of around 80%. Using natural language processing, the system successfully automatically sorted 99.3% of the approximately 25,000 responses received from users.

For Example:

Conversation bot: Tell me about your home. Do you live with anyone?

User: My wife

Response sorting: Married, Husband & wife only

Users may respond to questions from the conversation engine in a variety of ways. By automatically sorting natural language responses the system creates data that is easy to use in marketing activities.

Other possible uses for the conversation engine

The conversation engine can be linked to many services in additional to LINE. For instance, if linked to a TV or other home appliance, by attaching a natural response sending function it could respond to a user that asks it to change the channel by saying, "What channel should I change it to?." Linking the conversation engine to various apps and devices opens up possibilities for the development of many kinds of services and products.

Note 1: About DAC's DialogOne

A message management solution that permits interactive communication between companies and users on LINE. DialogOne not only enables high reach, it also permits sending of messages personalized for each user. URL: http://www.dac.co.jp/service/technology/crm/dialogone.html

Note 2: About LINE Business Connect

A service offered by Line Corporation that provides various customizable account functions to companies via API. Using LINE Business Connect allows companies with official LINE accounts to send users not just one-way messages typical of corporate accounts, but also messages personalized for specific users. In addition, by linking the company's existing databases and system to their LINE account, with user permission, it may also be used for more than just sending messages, for instance, as a CRM tool or business solution tool. (Note that LINE does not store client customer data connected to any LINE account.)

About Spontena

An operating company established by Hakuhodo's R&D Division and others to carry out independent business using natural language processing technology and offer marketing support services. Spontena plans to continuously develop conversation engines and other services in the natural language processing domain.



Spontena LLC

Location: Akasaka Biz Tower, 5-3-1 Akasaka, Minato-ku, Tokyo

Representative partner: Hakuhodo Inc. Established: April 1, 2013

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■ About Hakuhodo Inc.

Founded in 1895, Hakuhodo Inc. is an integrated advertising and communication agency headquartered in Japan. It is the core agency of Hakuhodo DY Group, the world's eighth largest agency company according to *Advertising Age*'s "Agency Report 2015." Hakuhodo has offices in 17 countries and regions, and over 3,000 employees working in Japan and over 2,500 overseas. Hakuhodo is strengthening its structure in emerging countries, particularly those in Asia, as it prepares to further expand its business across the region.

Sei-katsu-sha insight is the foundation for Hakuhodo's thinking, planning, and brand building. It reminds us that consumers are more than shoppers performing an economic function. They have heartbeats. They are individuals with distinct lifestyles. Hakuhodo introduced this term in the 1980s to emphasize its commitment to a comprehensive, 360-degree perspective on consumers' lives.

Renowned for its creativity, Hakuhodo has twice won the Grand Prix at Cannes Lions International Festival of Creativity, and was the only agency headquartered in Asia to be awarded a Special Lion commemorating Cannes Lions' 50th anniversary in 2003.

To learn more, visit: www.hakuhodo.jp