

August 27, 2019

Start of joint proof-of-concept trial utilizing natural language processing technology from US startup Clinc

Aiming to enhance voice-user interfaces for financial services

Mizuho Bank, Ltd.
NTT DATA Corporation

In August 2019, as a part of our fundamental research on new methods of customer engagement, Mizuho Bank, Ltd. (President & CEO: Koji Fujiwara) and NTT DATA Corporation (President & CEO: Yo Honma) will start a proof-of-concept trial for the adoption of a voice-user interface¹ utilizing natural language processing (NLP) technology from Clinc, Inc. (Headquarters: Michigan, USA; CEO: Jason Mars).

Background

In recent years, financial institutions worldwide are becoming more interested in using voice-user interfaces for mobile devices, as user interactions² are expected to be both natural and efficient. In light of this, we will conduct a proof-of-concept trial with the additional aim of exploring multilingual functionality for a global rollout of financial services.

We paired with Clinc due to their advanced NLP technology, which enables the rollout of multilingual functionality, and their depth of experience implementing such technology in financial domains. Leveraging the financial services expertise of Mizuho Bank, and the strengths of NTT DATA as a provider of IT system infrastructure for financial institutions and their expertise with NLP technology cultivated through a long history of researching and implementing such technologies, we aim to introduce voice-user interfaces at an early stage for services provided via branches, call centers, and online and mobile services.

Outline

The primary aims of this proof-of-concept trial are verifying the accuracy of speech recognition and the usability of this technology when used to interface with the J-Coin Pay app. To verify the technology's accuracy in recognizing speech, Clinc's AI engine will be trained and tested to determine its accuracy in recognizing colloquial Japanese expressions as well as to determine AI engine learning costs. To verify usability, this trial aims to ascertain whether or not voice-user interfaces can provide user interactions that are more stress-free and intuitive compared to conventional computer and smartphone interfaces.

To develop a voice-user interface, we will utilize Clinc's speech recognition engine and application development platform, and NTT DATA and Clinc will work together on prototype development as well as evaluation and tuning.

Proof-of-concept trial outline

Period: August to September 2019

Details: In a demo environment, trial participants will use a voice-user interface for the J-Coin Pay app, inputting information needed for account registration and for using the bill splitting function, in order to test and analyze the accuracy of speech recognition and the usability of the technology for spoken Japanese.

Role of each company

Mizuho Bank: Design a voice-controlled UI/UX,³ test the accuracy of speech recognition and usability, and conduct AI engine training.

NTT DATA: Conduct prototype development, AI engine training, and optimize the NLP technology for the Japanese language.

Clinc: Provide a speech recognition engine platform and provide technical training for Mizuho Bank and NTT DATA.

Going forward

Based on the results of this proof-of-concept trial, Mizuho Bank and NTT DATA will aim for early-stage implementation of a voice-user interface for services such as J-Coin Pay.

Notes

1. A supporting service which enables users to interface with a device using only their voice, without using a keyboard or device screen.
2. Actions that occur as a result of user input; the interactions between the user and the computer.
3. User Interface/User Experience. Usability and the user experience of moving through and using the service.

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Reference

About Clinc, Inc.

Headquartered in Michigan, tech startup Clinc is in the spotlight in the US, having recently obtained a round of funding that was one of the largest single investments in the history of conversational AI in North America. Based on an advanced NLP AI technology, Clinc has an application development platform that can respond to multiple languages including Japanese using only a small amount of learning data, and that is also specialized for financial institutions.

Clinc official site: <https://clinc.com/>

About J-Coin Pay

J-Coin Pay, a service provided by Mizuho Bank, allows customers to make payments, send and receive transfers, and perform other financial transactions all on their smartphones. J-Coin Pay is connected with 57 financial institutions, allowing customers to use the smartphone app to also move funds between their J-Coin Pay accounts and their bank accounts at their financial institutions for free, anytime and anywhere.

J-Coin Pay brand site: <https://j-coin.jp> (Japanese)