



**Service Priorities and Programmes**  
**Electronic Presentations**

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**Using embedded AI in a Chatbot application to provide interactive handling of telephone calls in Call Centres**

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**Introduction**

A novel solution of an Artificial Intelligence Chatbot integrated with a traditional telephone IVRS (interactive voice response system) was developed as a prototype under the IT Innovation funded projects.

**Objectives**

Using Artificial Intelligence embedded in a Chatbot application to assist HA operated call centres to provide interactive handling of basic requests from end users over the telephone.

The objective was to prove the useful application of the novel solution of an AI Chatbot integrated with an IVRS (allegedly the first of its kind in HK).

**Methodology**

A telephone line and phone number was setup to accept phone calls from users directly to submit enquiry by voice.

The Chatbot was trained via manual input and also using an AI engine to learn new phrases having the same intent.

The Chatbot was integrated with an IVRS system, to allow the Chatbot to manipulate various IVRS functions.

It supported Cantonese speech recognition, including random incorporation of English words and regional slang, using NLP (Nature Language Processing) techniques.

**Result**

The project was completed within a short timeframe of 4 months.

A final product was made available in early 2018, able to handle 10 different user scenarios. In each scenario, the bot could perform prolonged interaction with users to collect information, and finally give useful help via giving relevant information or connecting to other web services.