



# bot framework與LUIS



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- ▶ Microsoft MVP
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- ▶ K.NET & Study4.TW 社群 講師
- ▶ HTML5 & JavaScript 程式開發實戰書籍共同作者
- ▶ Microsoft MSDN 技術文章作者



# Agenda

- ▶ bot framework
- ▶ facebook message + bot
- ▶ LUIS
- ▶ Q&A



# 軟銀服務型機器人Pepper進軍台灣

亞太電信與沛博科技聯手引進日本軟體銀行設計的服務型機器人 Pepper，鎖定企業市場，採租賃方式開放國內企業租用，民眾未來將有機會在家樂福、台新銀行、第一銀行、國泰人壽等與Pepper互動。

讚 3 萬 按讚加入iThome粉絲團

讚 632 分享

G+ 3

文/ 蘇文彬 | 2016-07-25 發表

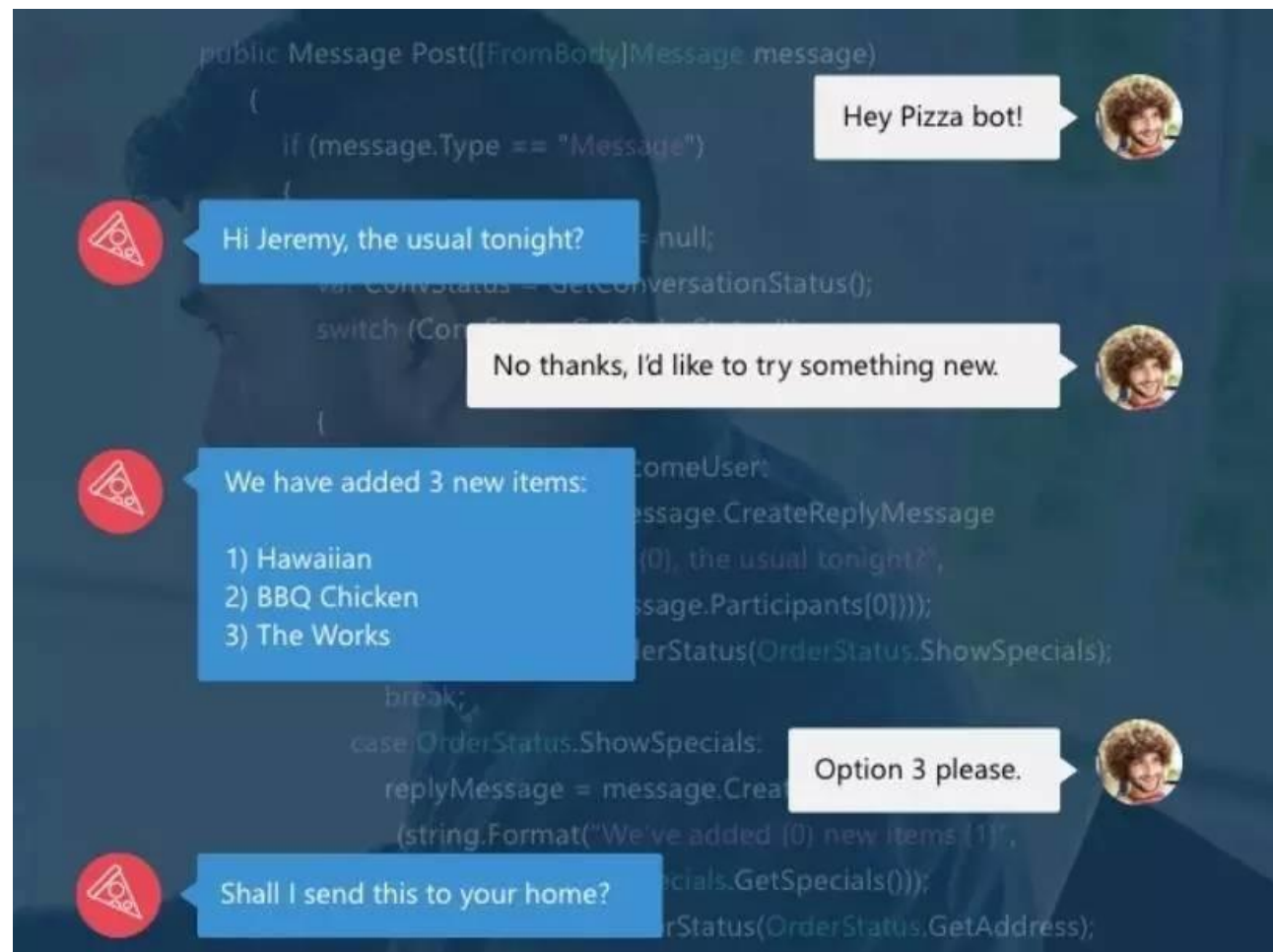


消費者互動服務Robot  
Talking for Pepper  
以語言、肢體動作與消費者  
進行互動



# bot framework

- ▶ Build 2016 推出
- ▶ conversation as a platform
- ▶ easy build your bots service



# 對談式bot

- ▶ 對談服務
- ▶ 使用者UI
- ▶ 語意分析



# bot framework

## Your Bot Framework Bot



### Bot Builder

Tools and services to build great bots that converse wherever your users are.

- Open source SDK on Github for Node.js, .NET and REST
- From simple built-in prompts and command dialogs to simple to use yet sophisticated 'FormFlow' dialogs
- Support for rich attachments (image, card, video, doc, etc.); support for calling (Skype)
- Online/offline chat Emulator
- Add bot smarts with Cognitive Services for language understanding and more



### Developer Portal

Connect your bots to text/sms, Skype, Slack, Facebook Messenger, Office 365 mail and other channels.

- Register, connect, publish and manage your bot through your bot's dashboard
- Automatic card normalization across channels
- Skype channel auto-configured
- Embeddable Web chat control
- Host your bot in your app via the Direct Line API
- Fast, scalable message routing
- Diagnostic tools



### Bot Directory

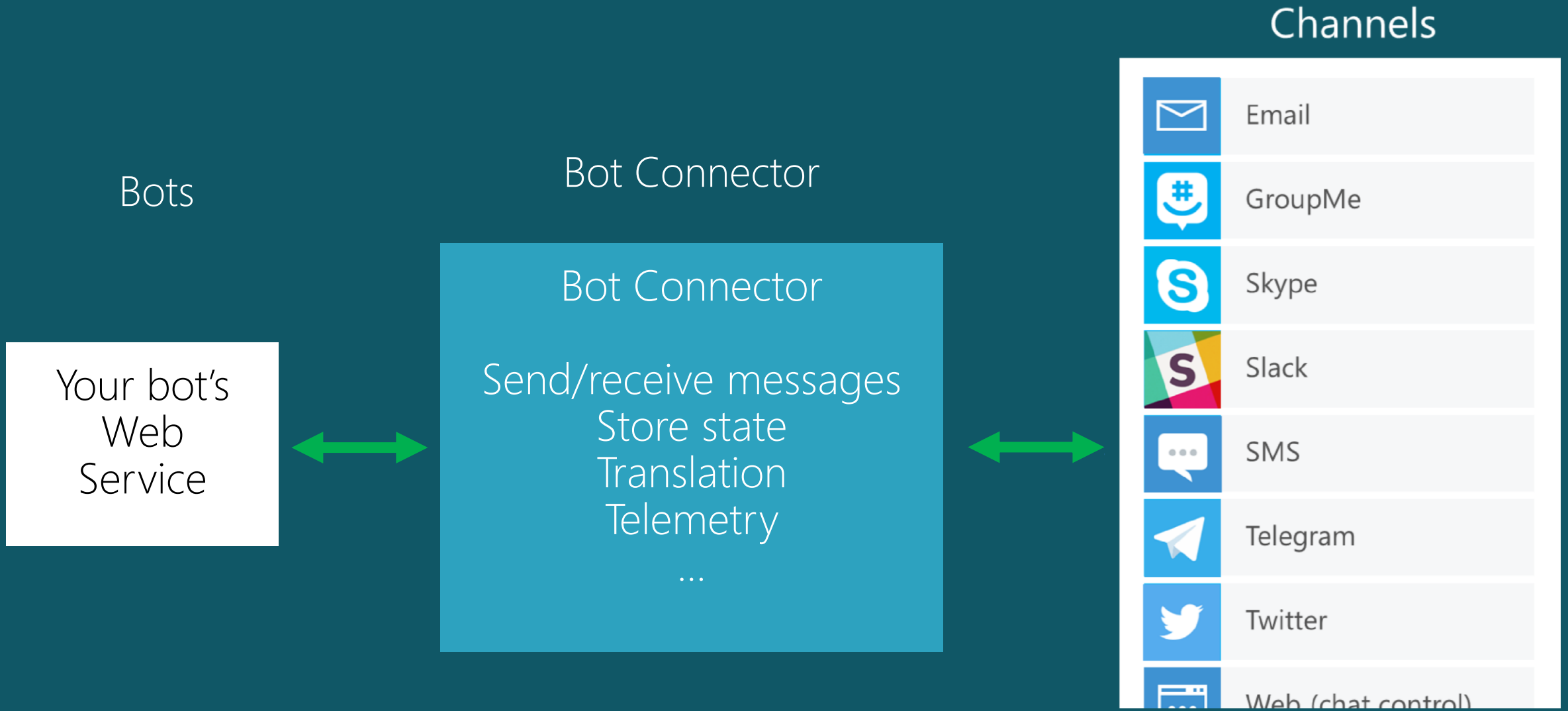
Try, use, and add published bots to the world's top conversation experiences.

- Public directory of bots registered and published with Microsoft Bot Framework
- Users can try your bot from the directory via the Web chat control
- Users can discover and add your bot to the channels on which it is configured when the Directory is made public to end users

coming soon



# bot connector (機器人連接器)





# bot dev portal

- ▶ Register bot
- ▶ Configure Channel
- ▶ Test
- ▶ Manage

The screenshot shows the Bot Framework Developer Portal interface for a bot named **KNetBot** owned by **Ian**. The top navigation bar includes links for Bot Framework (PREVIEW), My bots, Register a bot, Documentation, Bot Directory, and Blog. A **Publish** button is located in the top right corner.

**Details** (Edit)

Bot handle  
**KNetBot**

Bot Framework Version  
3.0

Messaging endpoint  
`https://knetbot.azurewebsites.net/api/messages`

Microsoft App ID  
`1bf75c1b-683b-4a38-bbcf-fd4096bd1ecc`

**Test connection to your bot**

**Test**

**Channels**

	Test link	Issues	Enabled	Published	
Facebook Messenger		5	Yes	<input type="checkbox"/> Off	<a href="#">Edit</a>
Skype	<a href="#">Add to Skype</a>	0	Yes (Preview)	<input type="checkbox"/> Off	<a href="#">Edit</a>
Web Chat		0	Yes	<input type="checkbox"/> Off	<a href="#">Edit</a>

[Get bot embed codes](#)

**Add another channel**

	Direct Line	<a href="#">Add</a>
	Email	<a href="#">Add</a>
	GroupMe	<a href="#">Add</a>
	Kik	<a href="#">Add</a>
	Slack	<a href="#">Add</a>
	Telegram	<a href="#">Add</a>
	Twilio (SMS)	<a href="#">Add</a>

# LUIS - 語意分析

- ▶ Language Understanding Intelligent Service
- ▶ 分析識別用戶端的語意

Language Understanding Intelligent Service (LUIS) offers a fast and effective way of adding language understanding to applications. With LUIS, you can use pre-existing, world-class, pre-built models from Bing and Cortana whenever they suit your purposes -- and when you need specialized models, LUIS guides you through the process of quickly building them.

LUIS draws on technology for interactive machine learning and language understanding from [Microsoft Research](#) and Bing, including Microsoft Research's [Platform for Interactive Concept Learning \(PICL\)](#). LUIS is a part of a project of [Microsoft Cognitive Services](#).



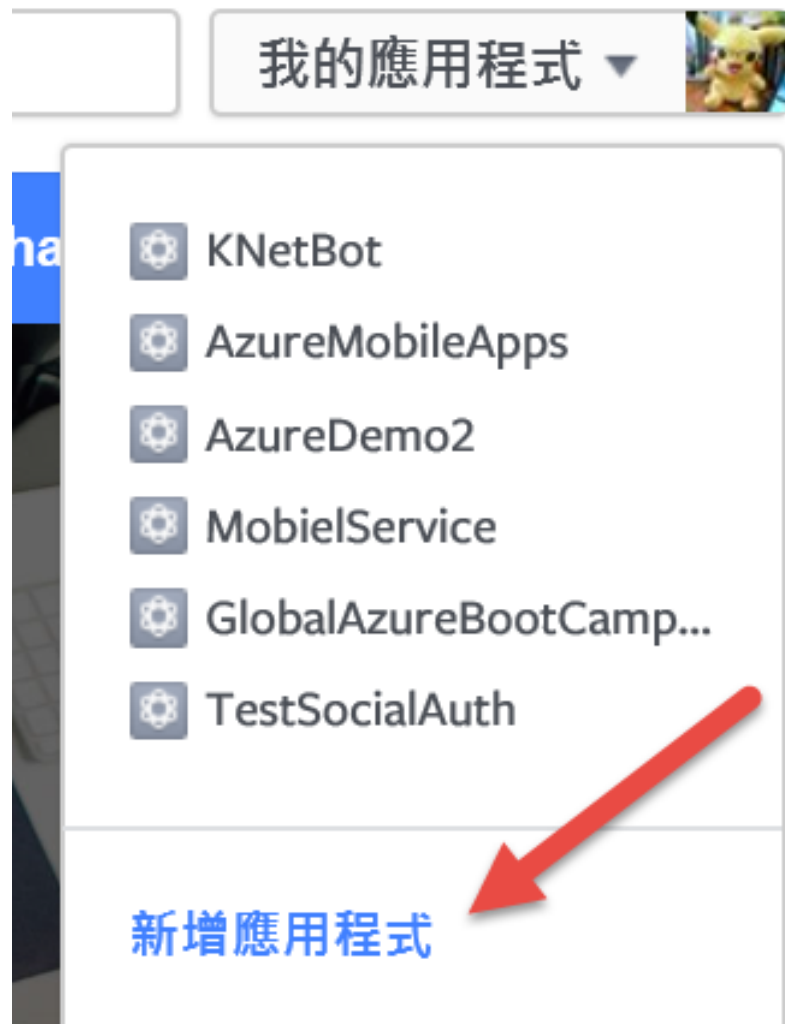
FaceBook Message bot

# FaceBook

- ▶ 建立粉絲團
- ▶ Facebook dev 建立APP
  - <https://developers.facebook.com/>



# FaceBook



## Add a New App

Select a platform to get started



iOS



Android



Facebook Canvas

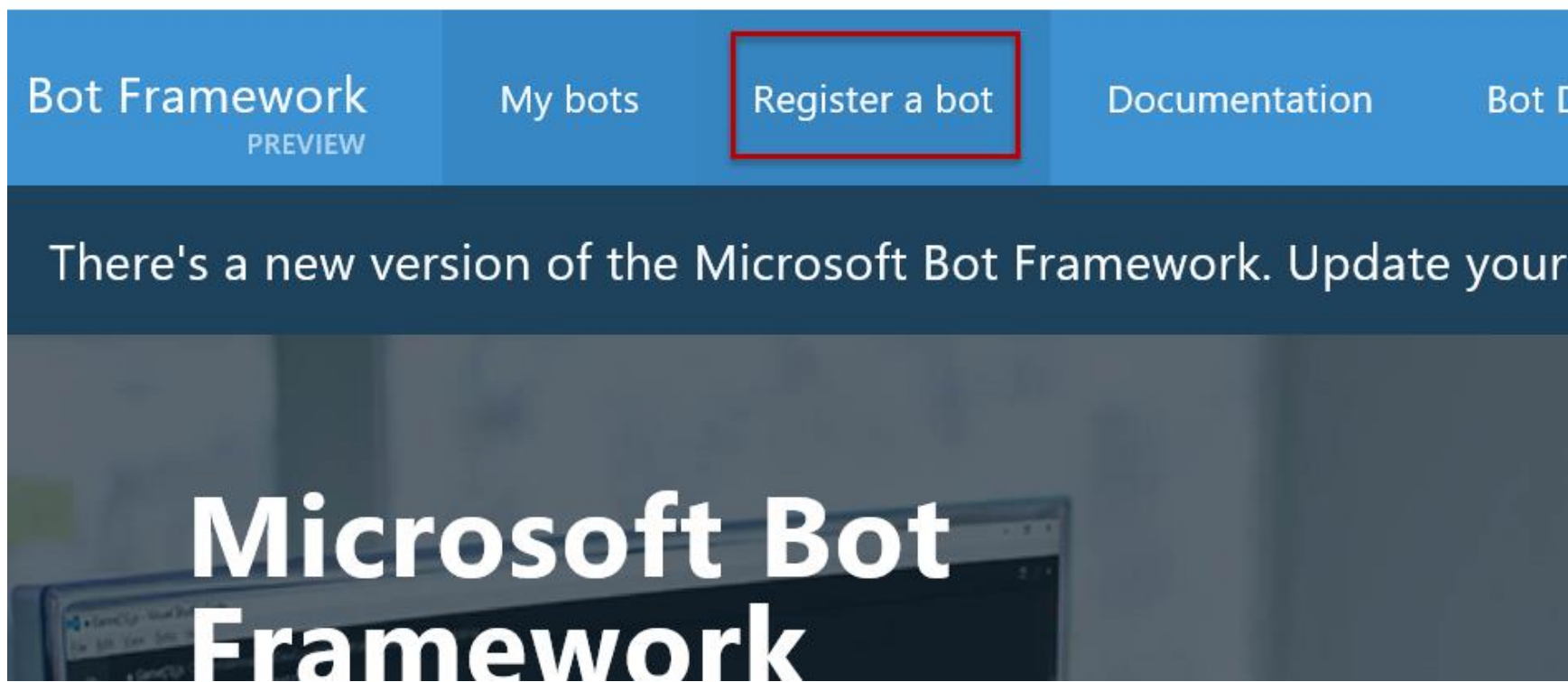


網站



# 註冊你的bot

► <https://dev.botframework.com/>



# 註冊你的bot

\* Name ?

Name

英

\* Bot handle ?

Type in your Bot handle

\* Description ?

Description

—————> 自訂 bot 名稱

—————> BotId ( bot web service )



# 註冊你的bot

## Configuration

Messaging endpoint ?

https URL

\* Microsoft App ID ?

Microsoft App ID from the Microsoft App registration portal

Create Microsoft App ID and password

1

# 註冊你的bot

## 產生 App 識別碼及密碼

應用程式名稱

IanTestBot1

應用程式識別碼

57027879-3395-4c46-96ca-f9f8ef1c20bb

產生密碼以繼續

已產生新的密碼

這只會顯示一次。請將其儲存在安全的位置。請在 bot 設定檔中貼上此密碼。

x8KijH3K9pbUmXpxuoTVsOL

確定

# 註冊你的bot

## Publisher profile

\* Publisher name

Your company name

\* Publisher Email

kmcchen@seed.net.tw

\* Privacy statement

URL to bot's privacy statement

\* Terms of Use

URL to bot's Terms of Use

發佈者基本資訊以及隱私權聲明的URL



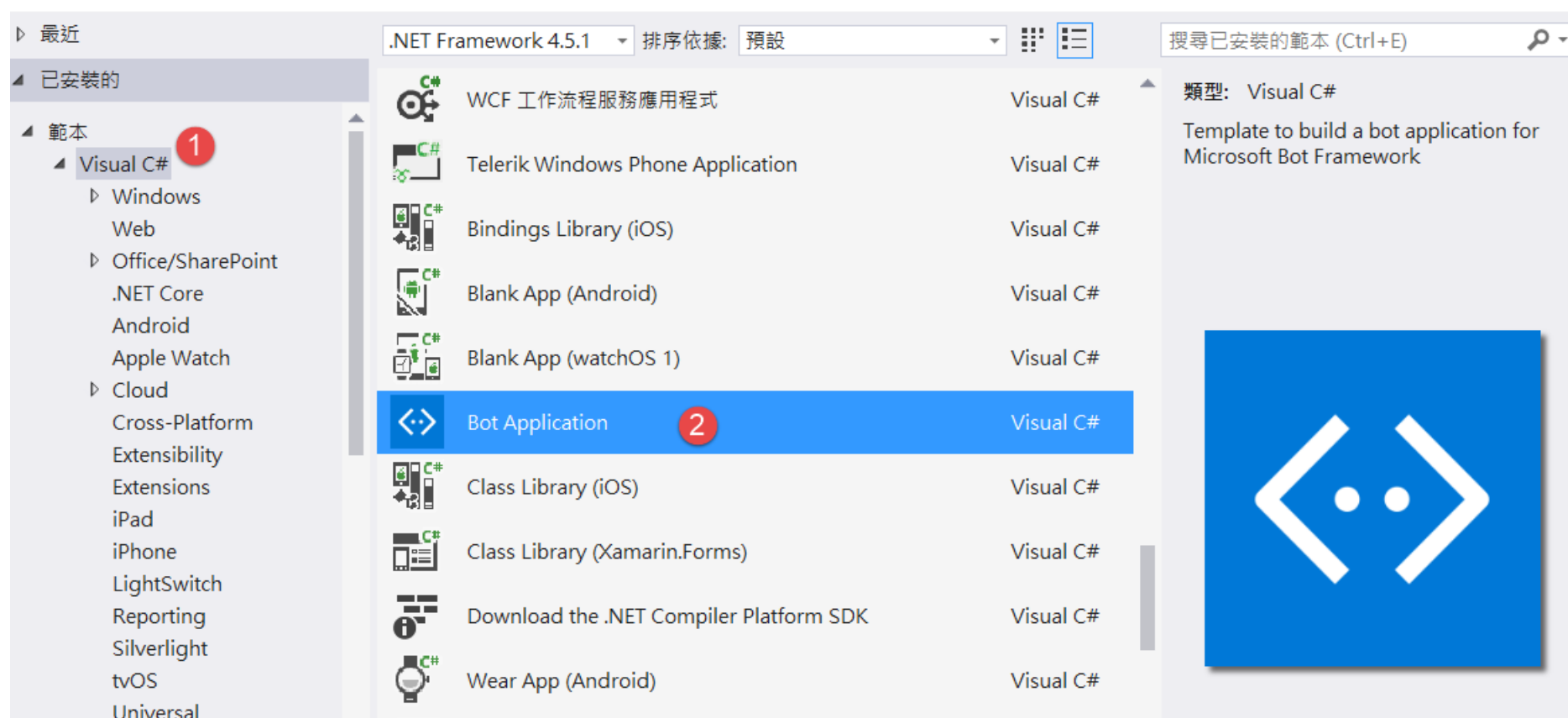
# bot Service

- ▶ Visual Studio 2015 with Update3
- ▶ download bot project template
  - <http://aka.ms/bf-bc-vstemplate>
  - %USERPROFILE%\Documents\Visual Studio 2015\Templates\ProjectTemplates\Visual C#
- ▶ Azure Account



# bot Service

## ► Create bot project



# bot Service

- ▶ Create bot project
- ▶ Modify web.config
- ▶ Publish to Azure Web APP

```
<appSettings>  
  <!-- update these with your BotId, Microsoft App Id and your Microsoft App Password-->  
  <add key="BotId" value="" />  
  <add key="MicrosoftAppId" value="" />  
  <add key="MicrosoftAppPassword" value="" />  
</appSettings>
```

# 連接bot與bot Service

## Configuration

Messaging endpoint ?

https URL

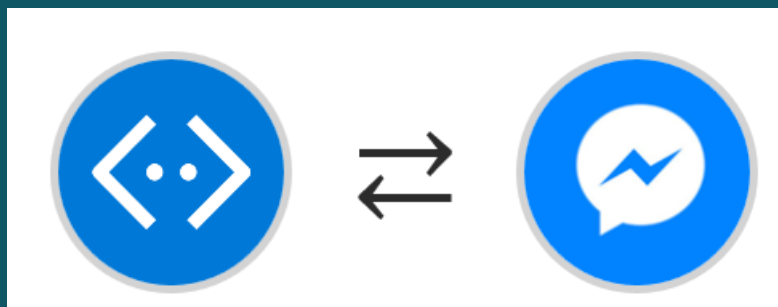
HTTPS Rest endpoint that the bot implements to send and receive messages.

Describe your bot here and your terms of use etc.

Visit [Bot Framework](#) to register your bot. When you register it


`https://your_bots_hostname/api/messages`

# 連接bot與FaceBook Message





# 連接bot與FaceBook Message



## KNetBot

lan

[Publish](#)

### Details

[Edit](#)




Bot handle  
KnetBot

Bot Framework Version  
3.0

Messaging endpoint  
https://.api/messages


Microsoft App ID  
bd1ecc

### Channels

	Test link	Issues	Enabled	Published	
	Facebook Messenger	5	Yes	<input type="checkbox"/> Off	<a href="#">Edit</a>
	Skype	<a href="#">Add to Skype</a>	Yes (Preview)	<input type="checkbox"/> Off	<a href="#">Edit</a>
	Web Chat	0	Yes	<input type="checkbox"/> Off	<a href="#">Edit</a>

[Get bot embed codes](#)

### Add another channel

	Direct Line	<a href="#">Add</a>
--	-------------	---------------------

# 連接bot與FaceBook Message

Credentials have been validated.

Facebook Page Id

Facebook App Id

Facebook App Secret

Page Access Token

# 連接bot與FaceBook Message

## ► Facebook Page Id

你可以在「專頁資訊」區塊中變更 @用戶名稱。

關於

1

相片

按讚分析

活動

影片

網誌

貼文

管理頁籤

+ 新增商店專區

推廣

我們熱愛技術，但不盲從。  
我們重視分享，但不造神。

創立時間

+ 輸入粉絲專頁成立日期

獎項

+ 輸入獎項

商品

每週三常態性聚會活動 (於星期舉辦小型研討會。

電子郵件

regionbbs@gmail.com

網站

<http://knet.io>

官方粉絲專頁

輸入和粉絲專頁相關的官方品

Facebook 專頁編號

759

2

# 連接bot與FaceBook Message

## ▶ Facebook App Id

The screenshot displays the KNetBot application interface. On the left is a dark sidebar menu with the following items: 主控板 (Dashboard), 設定 (Settings), 角色 (Roles), 提示 (Tips), 應用程式審查 (App Review), 商品 (Products), Facebook 登入 (Facebook Login), Messenger, and Webhooks. The main content area has a header with the KNetBot logo and name, the application ID (應用程式編號: 6[redacted]), and a 'View Analytics' link. Below the header is a '主控板' (Dashboard) section. It features the KNetBot logo, the application name 'KNetBot' with a green status indicator, and a description: '此應用程式為開發模式，只能由應用程式管理員、開發人員使用' (This application is in development mode, can only be used by application administrators and developers). Below this, the 'API 版本' (API Version) is shown as 'v2.7', and the '應用程式編號' (Application ID) is shown as '6[redacted]'. A red arrow points to the application ID field. At the bottom, the '應用程式密鑰' (Application Secret) is shown as a series of dots.

KNetBot 應用程式編號: 6[redacted] | View Analytics

主控板

KNetBot ○

此應用程式為開發模式，只能由應用程式管理員、開發人員使用

API 版本 [?] 應用程式編號

v2.7 6[redacted]

應用程式密鑰

●●●●●●●●

# 連接bot與FaceBook Message

## ▶ Facebook App Secret

The screenshot displays the KNetBot dashboard interface. On the left is a dark sidebar menu with the following items: 主控板 (Dashboard), 設定 (Settings), 角色 (Roles), 提示 (Tips), 應用程式審查 (App Review), 商品 (Products), Facebook 登入 (Facebook Login), Messenger, and Webhooks. The main content area has a header with the KNetBot logo, the text '應用程式編號: 6[REDACTED]', and a 'View Analytics' link. Below the header, the '主控板' (Dashboard) section shows the app's details: the KNetBot logo, the name 'KNetBot', a description '此應用程式為開發模式，只能由應用程式管理員、開發者使用' (This app is in development mode, can only be used by app administrators and developers), the API version 'v2.7', and the app ID '6[REDACTED]'. At the bottom, the '應用程式密鑰' (App Secret) field is shown with a red arrow pointing to it; the secret is represented by a series of dots.

KNetBot 應用程式編號: 6[REDACTED] View Analytics

主控板

主控板

KNetBot

此應用程式為開發模式，只能由應用程式管理員、開發者使用

API 版本 [?] 應用程式編號

v2.7 6[REDACTED]

應用程式密鑰

.....



# 連接bot與FaceBook Message

## ▶ Page Access Token

The screenshot displays the Facebook Developer console interface for an application named "KNetBot". The top navigation bar includes the application name, its ID (660999400723992), and a link to "View Analytics". A left-hand sidebar contains navigation links: "主控板", "設定", "角色", "提示", "應用程式審查", "商品", "Facebook 登入", "Messenger" (marked with a red circle containing the number 1), and "設定" (marked with a red circle containing the number 2). The main content area is titled "權杖產生" (Token Generation) and contains a warning message: "必須提供粉絲專頁權杖才能開始使用 API。此粉絲專頁權杖將擁有所有 Me 未獲准使用這些權限 (但是在這個情況下，你只能傳送訊息給應用程式管理員，為並非你擁有的粉絲專頁產生粉絲專頁權杖。)". Below this, there are two sections: "粉絲專頁" (Fan Page) with a dropdown menu showing "K.NET" and a red circle with the number 3, and "粉絲專頁存取權杖" (Fan Page Access Token) with a blacked-out token value. At the bottom, a "Webhooks" section is partially visible.

KNetBot 應用程式編號：660999400723992 | View Analytics

主控板  
設定  
角色  
提示  
應用程式審查  
商品  
Facebook 登入  
Messenger 1  
設定 2

權杖產生

必須提供粉絲專頁權杖才能開始使用 API。此粉絲專頁權杖將擁有所有 Me 未獲准使用這些權限 (但是在這個情況下，你只能傳送訊息給應用程式管理員，為並非你擁有的粉絲專頁產生粉絲專頁權杖。)

粉絲專頁 粉絲專頁存取權杖

K.NET 3

Webhooks

# 連接bot與FaceBook Message

Credentials have been validated.

Facebook Page Id	7
Facebook App Id	-
Facebook App Secret	80db
Page Access Token	Epfk

1

Resubmit

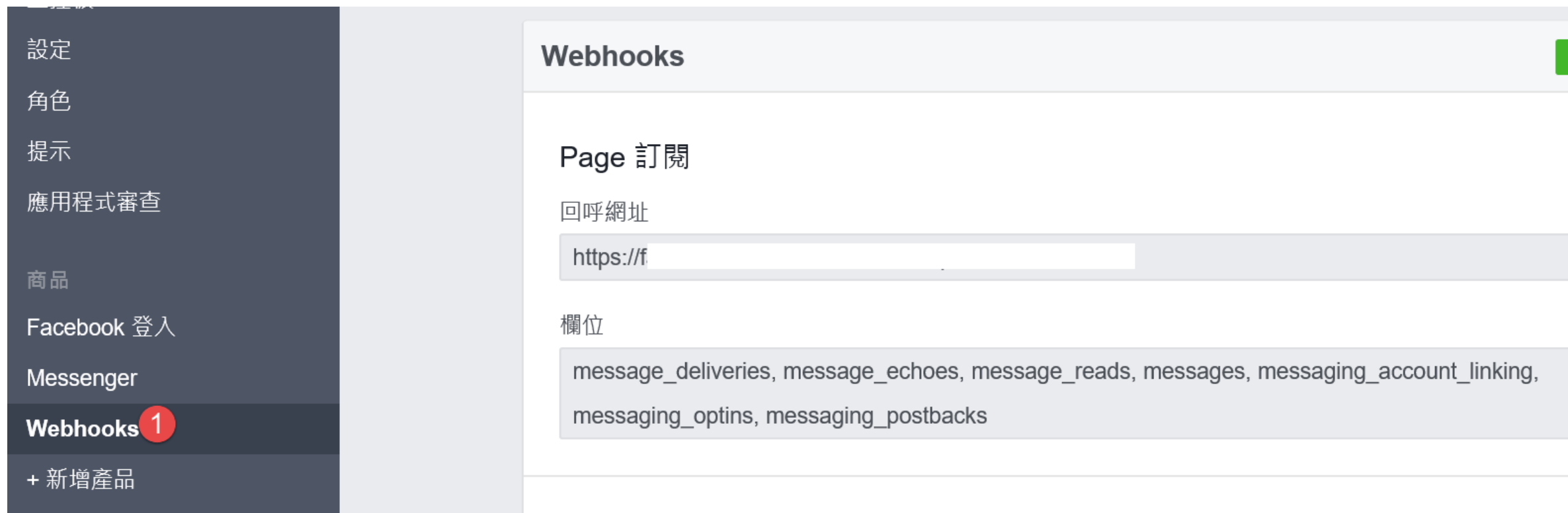


2

Enable this bot on Facebook Messenger

# 連接bot與FaceBook Message

Bot Dev Portal dashboard → Edit → Set webhook callback url and verify token



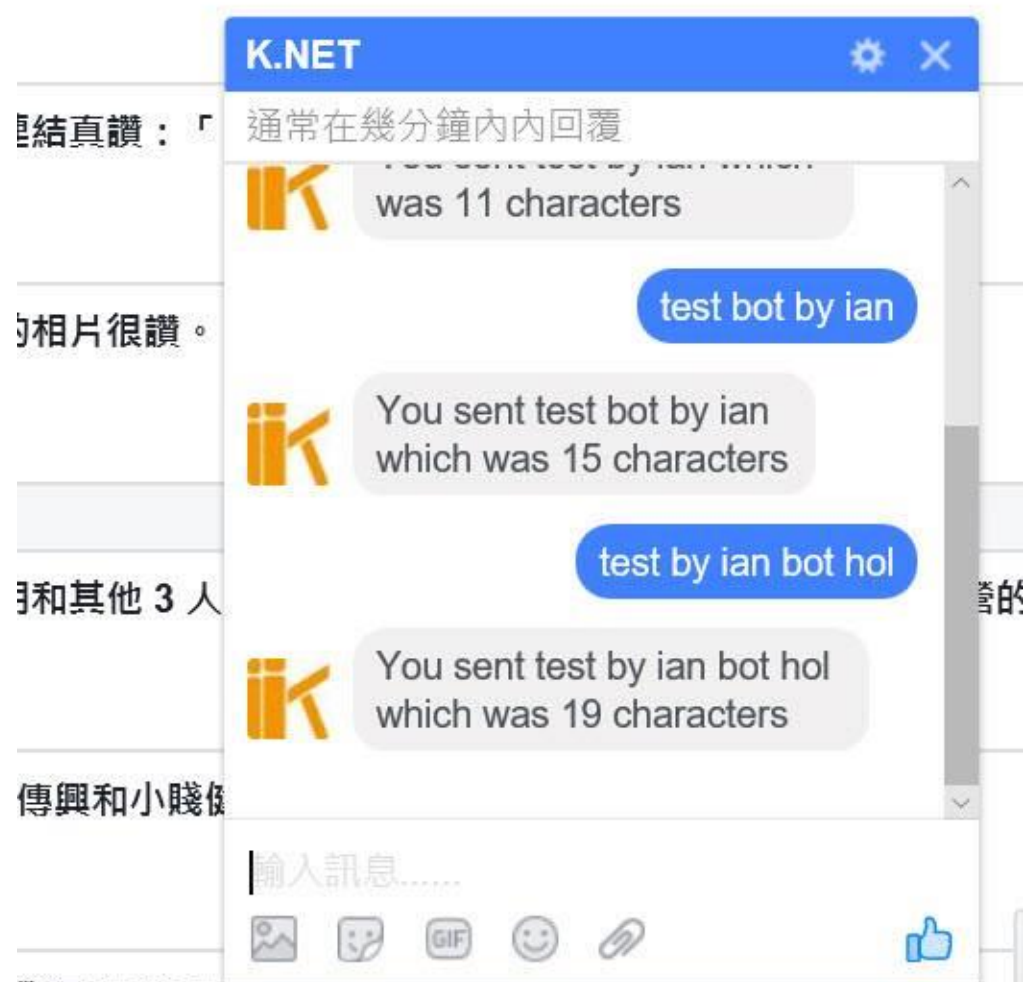
The screenshot shows the Facebook Bot Developer Portal interface. On the left is a dark sidebar with navigation links: 設定, 角色, 提示, 應用程式審查, 商品, Facebook 登入, Messenger, Webhooks (highlighted with a red badge containing the number 1), and + 新增產品. The main content area is titled 'Webhooks' and contains the following sections:

- Page 訂閱**
- 回呼網址**: A text input field containing 'https://f'.
- 欄位**: A text input field containing 'message\_deliveries, message\_echoes, message\_reads, messages, messaging\_account\_linking, messaging\_optins, messaging\_postbacks'.

At the bottom of the page, there is a footer with the text 'Facebook 開發者平台'.

# Test Your Bot

盧宏翊和其他 3 人都覺得你的連結很讚：「今天是星期三，



# 語意分析 - LUIS

# LUIS

- ▶ Microsoft 推出的語意分析服務
- ▶ 透過訓練可以分析用戶語意，建立互動的自然語言對話
- ▶ <https://www.luis.ai/>



# LUIS

► Create New App

## My Applications

+ New App

1



Cortana pre-built apps



Start Tutorial

Sort by Appli

KNetBot

Delete

Import Utterances

KNet 社群粉絲頁 Bot

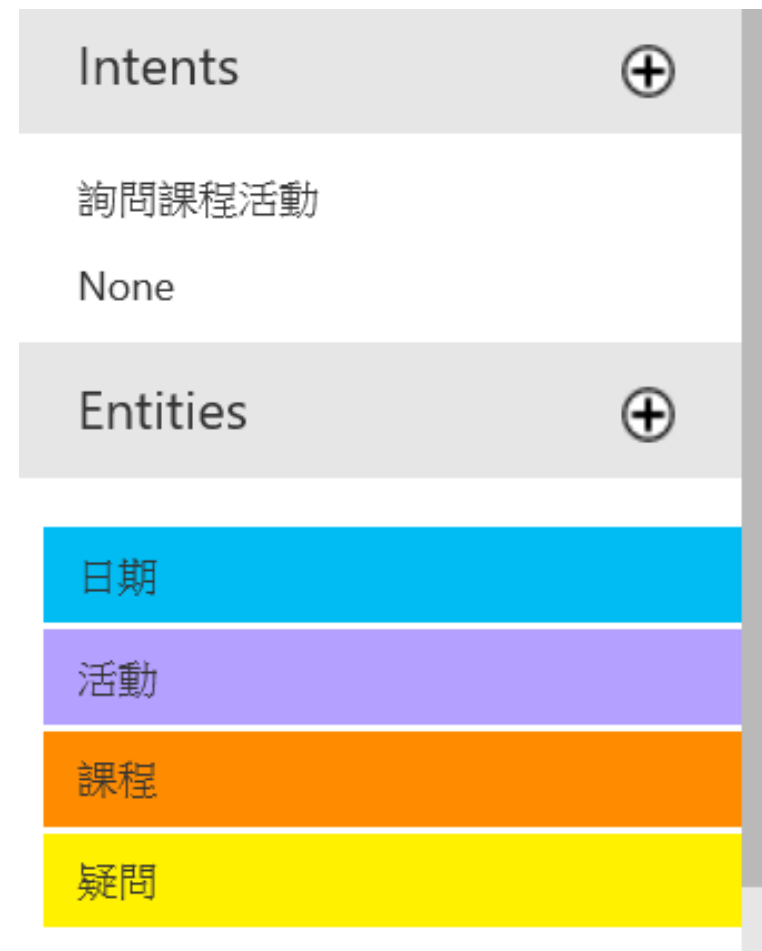
- Created: 4 Aug 2016
- Published: 19 Aug 2016
- Modified: 10 Aug 2016
- Language: Chinese

- Intents: 2
- Entities: 4



# LUIS

- ▶ Intents
  - 用戶語意意向分類
- ▶ Entities
  - 用戶語言文字項目分類



# LUIS

New utterances

Search

Suggest

Review labels

下個月有什麼課程



下個月有什麼課程

詢問課程活動(0.98)



Submit


Pre-built Entities



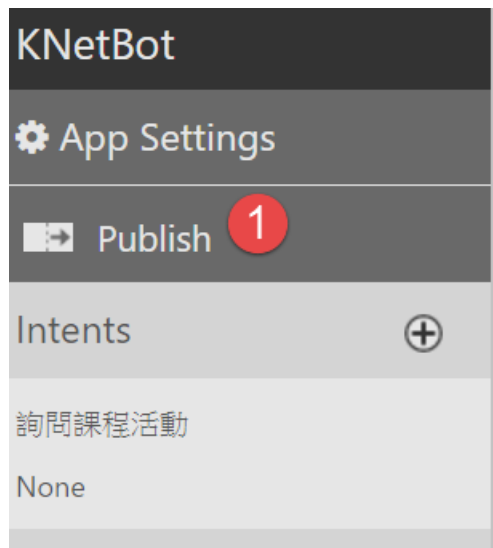
No pre-built entities added

Regex Features



 Train

# LUIS



## HTTP service

Publish Current Application to URL for access:

Status: Published on 2016/8/19 下午3:03:36

Query: 下個月會開課嗎? (2)

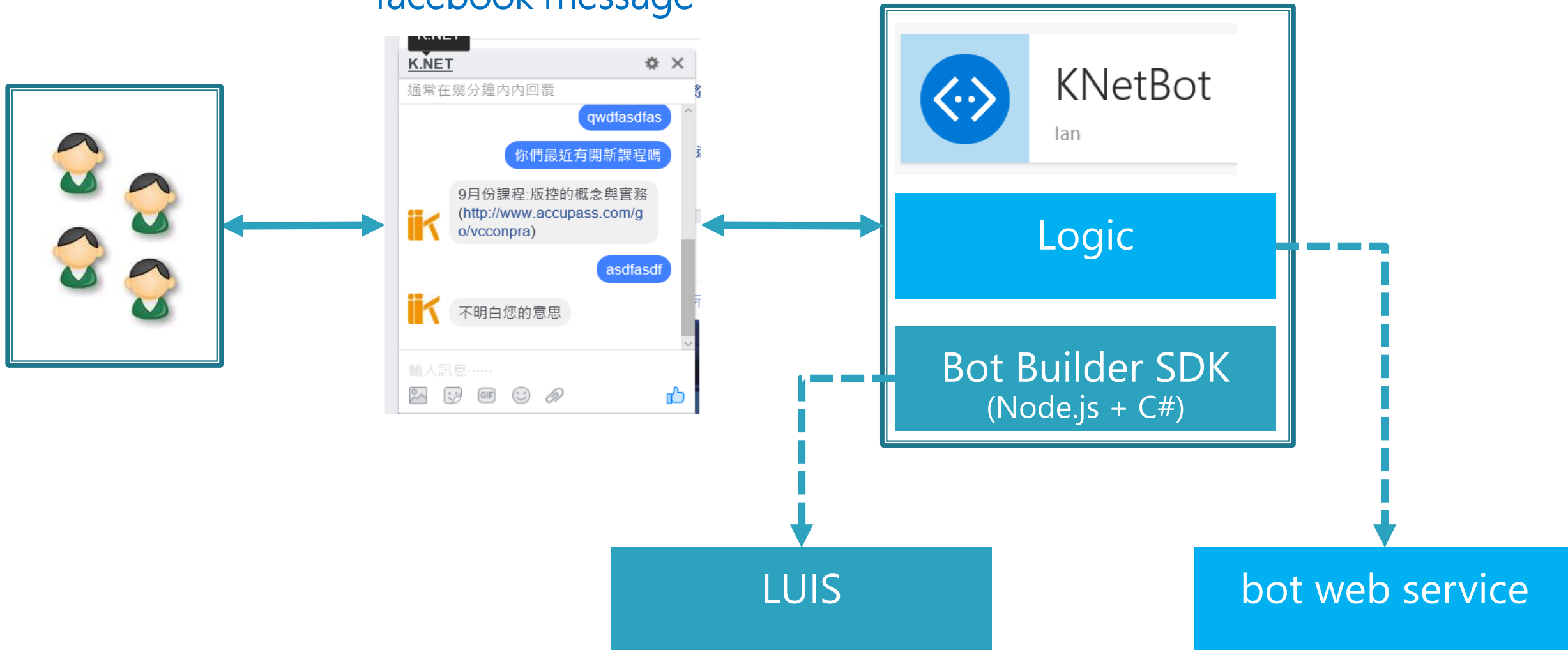
URL: <https://api.projectoxford.ai/luis/v1/application?id=c96key=b7c88a2066c84922aaffd74e0cb71582&q=%E4%B8%8> (3)

```
{
  "query": "下個月會開課嗎?",
  "intents": [
    {
      "intent": "詢問課程活動",
      "score": 0.82152,
      "actions": [
        {
          "triggered": true,
          "name": "詢問課程活動",
          "parameters": [
            {
              "name": "請問",
              "required": false,
              "value": null
            },
            {
              "name": "課程",
              "required": false,
              "value": null
            },
            {
              "name": "活動"
            }
          ]
        }
      ]
    }
  ]
}
```

Bot + LUIS

# Summary

facebook message



Q&A

# 參考資源

- ▶ <https://channel9.msdn.com/Events/Build/2016/B821>
- ▶ <https://dev.botframework.com/>
- ▶ <https://www.luis.ai/>

