

專題製作

Google Prediction API

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Google Prediction API — Google Developers


developers.google.com/prediction/

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 **What is the Google Prediction API?**

Google's cloud-based machine learning tools can help analyze your data to add the following features to your applications:

-  Customer sentiment analysis
-  Message routing decisions
-  Document and email classification
-  Churn analysis
-  Recommendation systems
-  Spam detection
-  Upsell opportunity analysis
-  Diagnostics
-  Suspicious activity identification
-  *And much more...*

RESTful API **Flexible Input** **Multi-Platform Support**





Asynchronous, cloud-based training. Numeric or text input that can. Google App Engine, App Script.

官方網站：<https://developers.google.com/prediction/>

What is the Google Prediction API?

- Google雲端架構的一種機器學習工具
- 可根據特性分析應用程式的資料

-  客戶意見分析
-  訊息路由選擇
-  文件和郵件分類
-  客戶流失分析
-  推薦系統

-  垃圾信偵測
-  追加銷售機會分析
-  診斷
-  識別可疑活動
-  還有更多...

Features

- RESTful API
 - 非同步的雲端架構訓練
 - 自動模式的選擇和調整
 - 動態增加訓練資料能力

What is REST?

- 表徵狀態轉移
- Representational State Transfer
- 一種軟體架構風格
- 基於使用HTTP、URI、XML和HTML的協議和標準
- <http://zh.wikipedia.org/wiki/REST>

What is RESTful?

- 用HTTP並遵循REST原則的Web服務
- 定義：
 - URI，例如：`http://example.com/resources/`
 - Web服務接受與返回的網際網路媒體類型，
比如：**JSON**、**XML**、YAML等
 - Web服務在該資源上所支持的一系列請求方法（例如：POST、GET、PUT或DELETE）

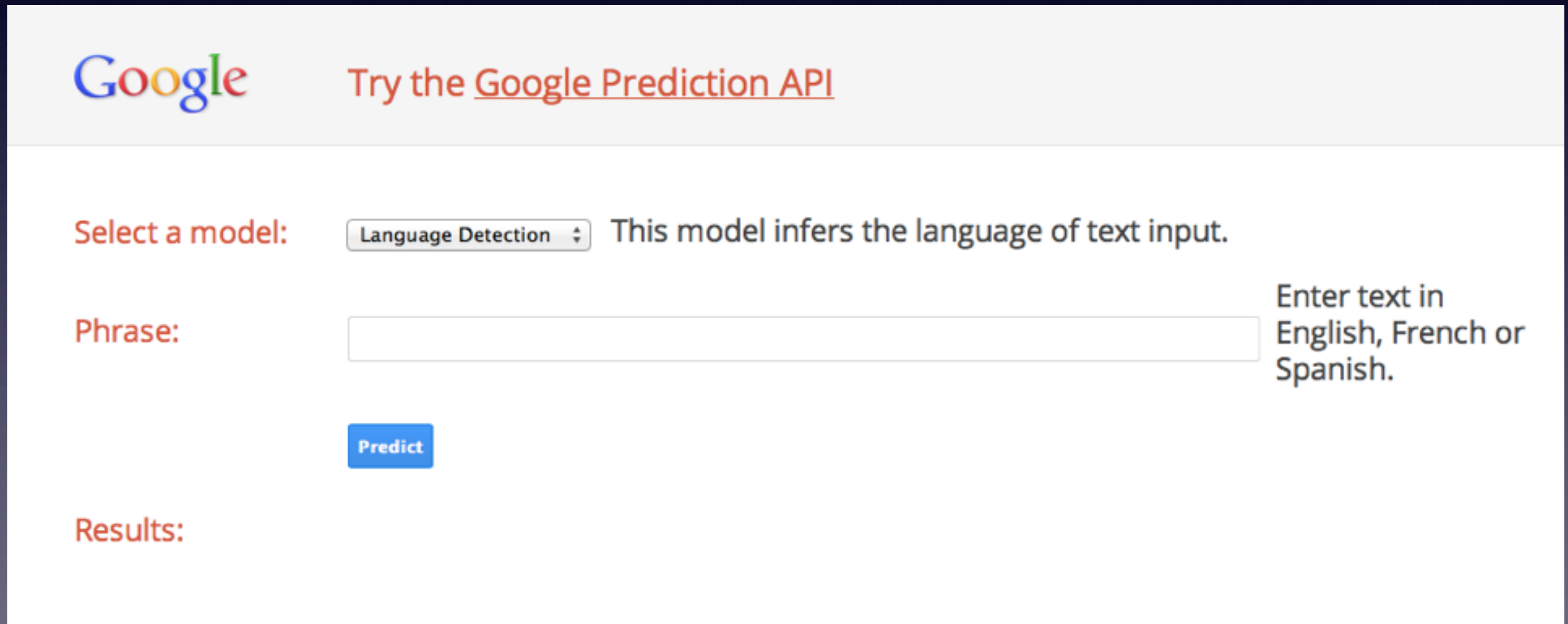
- 靈活的輸入
 - 數字或文字輸入
 - 可輸出數百個不同的類別或連續值

- 支援多平台
 - GAE、Apps Script(Google Docs)、Web & Desktop apps 和命令列

Client library	Documentation	All client library samples
Google APIs Client Library for .NET (beta)	google-api-dotnet-client/	.NET samples
Google APIs Client Library for Dart (alpha)	google-api-dart-client/	Dart samples
Google APIs Client Library for Go (alpha)	google-api-go-client/	Go samples
Google API Libraries for Google Web Toolkit (alpha)	gwt-google-apis/	GWT samples
Google APIs Client Library for Java (beta)	google-api-java-client/	Java samples
Google APIs Client Library for JavaScript (beta)	google-api-javascript-client/	JavaScript samples
Google APIs Client Library for Objective-C	google-api-objectivec-client/	Objective-C samples
Google APIs Client Library for PHP (beta)	google-api-php-client/	PHP samples
Google APIs Client Library for Python	Google APIs Client Library for Python	Python samples
Google APIs Client Library for Ruby (alpha)	google-api-ruby-client/	Ruby samples

Try Prediction with GAE

- <http://try-prediction.appspot.com>



The screenshot shows the Google Prediction API demo interface. At the top left is the Google logo. To its right is the text "Try the [Google Prediction API](#)". Below this, there is a section for selecting a model. It says "Select a model:" followed by a dropdown menu currently showing "Language Detection". To the right of the dropdown is the text "This model infers the language of text input." Below the model selection is a text input field labeled "Phrase:". To the right of the input field is a note: "Enter text in English, French or Spanish." Below the input field is a blue button labeled "Predict". At the bottom left, the text "Results:" is visible, followed by a large empty space for the output.

Google Try the [Google Prediction API](#)

Select a model: Language Detection This model infers the language of text input.

Phrase: Enter text in English, French or Spanish.

Predict

Results:

Select a model:

Language Detection ↕

This model infers the language of text input.

Phrase:

How are you?

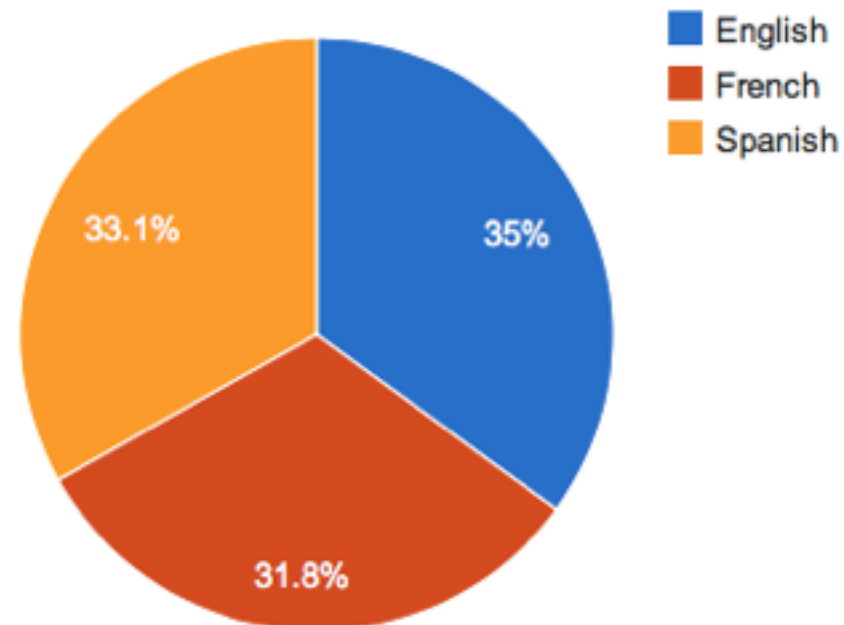
Enter text in
English, French or
Spanish.

Predict

Results:

English

[Switch chart type](#)



What Can the Prediction API Do?

- 提供樣式比對和機器學習能力
- 給予一組範例資料進行訓練後，可以建立應用程式執行以下任務
 - 根據用戶過往的印象習慣，預測可能喜歡的電影或是產品
 - 分類為垃圾郵件或者非垃圾郵件的電子郵件
 - 分析產品的評論是正向還是負向
 - 預測客戶一天的花費及消費記錄

Prerequisites

- 必須有一個Google帳戶
- 必須有一個啟用的Google Prediction API和Google Cloud Storage API功能的APIs Console project



建立帳戶

如果您已經有 Google 帳戶，您可以[從這裡登入](#)。

Google 帳戶的必要資料

您目前的電子郵件地址：

例如：myname@example.com。這將用來登入您的帳戶。

請選擇密碼：

長度最少 8 個字元。

[密碼強度：](#)

重新輸入密碼：

☐ 保持登入狀態

☒ 啟用「網頁記錄」[瞭解更多資訊](#)

位置：

生日：

YYYY/MM/DD (例如「2012/11/13」)

字詞驗證：

輸入您在下圖中看到的字元。



字母不區分大小寫

<https://accounts.google.com/NewAccount>

[SIGN UP](#)

Accounts

Google has more to offer when you sign in to your Google Account.

Sign in on the right or [create an account for free](#).



Gmail

Chat with friends and never miss an important email.



Personalized Search

Get more relevant results based on your past searches.



Like Google?

[Make Google your homepage](#).

See [more benefits](#) of a Google Account.

Sign in

Google

Email

Password

[Sign in](#)

☐ Stay signed in

[Can't access your account?](#)

<https://accounts.google.com/ServiceLogin?service=devconsole&passive=1209600&continue=https://code.google.com/apis/console/&followup=https://code.google.com/apis/console/>

建立Google APIs console project



Start using the Google APIs console
to manage your API usage



Creating an **APIs project** will let you:

- Use Google APIs **beyond anonymous limits**.
- **Monitor** API usage and **control** API access.
- Share API management with a team.

Create project...

LICENSE AGREEMENT**Google Cloud Storage, Google Prediction API, and Google BigQuery Service**

This License Agreement for Google Cloud Storage, Google Prediction API, and Google BigQuery Service (the "Agreement") is made and entered into by and between Google Inc., a Delaware corporation, with offices at 1600 Amphitheatre Parkway, Mountain View 94043 ("Google") and the business entity agreeing to these terms ("Customer"). This Agreement is effective as of the date Customer clicks the "I Accept" button below (the "Effective Date"). If you are accepting on behalf of Customer, you represent and warrant that: (i) you have full legal authority to bind Customer to this Agreement; (ii) you have read and understand this Agreement; and (iii) you agree, on behalf of Customer, to this Agreement. If you do not have the legal authority to bind Customer, please do not click the "I Accept" button below. This Agreement governs Customer's access to and use of the Service. For an offline variant of this Agreement, you may contact Google at <http://www.google.com/enterprise/cloud/contact.html> for more information.

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1.1. From Google to Customer. Subject to this Agreement, Google grants to Customer a worldwide, non-sublicensable, non-transferable, non-exclusive, terminable, limited license to: (a) use the Service, (b) integrate the Services into any Application and provide the Services, solely as integrated into the Application, to users of the Application and (c) use any Software provided by Google as part of the Service.

1.2. From Customer to Google. By submitting, posting or displaying any Customer Data on or through the

0 of 1 terms of service accepted.







Google Cloud Storage

☒ I agree to these terms.

Accept

Decline

將Prediction API和Google Cloud Storage啟用

 Prediction API			Courtesy limit: 100 requests/day • Pricing
 Google Cloud Storage			Pricing

Sample Training Data

