

TellMeFirst API V 0.2

Developer's Guide

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Introduction

TellMeFirst (<http://tellmefirst.polito.it>) is an application that exploits Linked Data and Natural Language Processing techniques to classify and semantically enrich documents with new contents (text, images, news, video).

The TellMeFirst source code is available at: <https://github.com/TellMeFirst/tellmefirst>.

About This Guide

This guide is intended for users and developers who develop applications using TellMeFirst API.

To test the TellMeFirst API, 500 calls per IP address are available. For more requests, you can ask a free API key at tellmefirst.dev@gmail.com.

With the API key 500 calls per IP address per day are available.

Searching This Guide

To search this guide, choose **Edit** → **Find** in Adobe Acrobat Reader.

Conventions

- In the GET requests we use as example, variable names are shown in braces { }. Do not type the braces and brackets in the request.
- In response descriptions, attributes are indicated by an *at* sign (@).
- In response examples, an ellipsis (...) indicates information that is omitted for brevity.

License

TellMeFirst source code and APIs are available under GNU Affero General Public License 3.0 (<http://www.gnu.org/licenses/agpl-3.0.html>).

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Classify

Description

The classify service allows you to identify the main topics of a textual document. The input data could be a URL of a specific Web page, a PDF or DOC document (max 3MB) or a plain text (min 50 words - max 20,000 words). The results are expressed in the form of DBpedia URIs.

Request - POST

<http://tellmefirst.polito.it:2222/rest/classify>

Request Headers

HEADER	DESCRIPTION	VALID VALUES
Accept	The MIME type of the returned data format (JSON)	application/json
Content-Type	Used to encode the data for submission to the server	multipart/form-data

Request URI Parameters

PARAMETER	DESCRIPTION	EXAMPLE
file	File path	@/home/tellmefirst/files/2011-issc-paper.pdf
fileName	File name	2011-issc-paper.pdf
url	Web page url	http://www.guardian.co.uk/environment/2012/nov/05/letter-decarbonisation-target-energy-bill
text	Plain text to evaluate	The final work of legendary director Stanley Kubrick, who died within a week of completing the edit, is based upon a novel by Arthur Schnitzler
numTopics	Number of topics in the result	7 (max 20)
lang	Language of the text	"english" or "italian"
key	API key or empty string value	""

Request examples with curl

Example of the use of classify service for extracting topics from a PDF file.

- `curl -F file=@/home/tellmefirst/files/2011-issc-paper.pdf -F fileName="2011-issc-paper.pdf" -F numTopics=7 -F lang=english -F key="" http://tellmefirst.polito.it:2222/rest/classify`

Example of the use of classify service for extracting topics from a URL.

- `curl -F url="http://www.theguardian.com/environment/2012/nov/05/letter-decarbonisation-target-energy-bill" -F numTopics=7 -F lang=english -F key="" http://tellmefirst.polito.it:2222/rest/classify`

Example of the use of classify service for extracting topics from a plain text.

- `curl -F text="The final work of legendary director Stanley Kubrick, who died within a week of completing the edit, is based upon a novel by Arthur Schnitzler." -F numTopics=7 -F lang=english -F key="" http://tellmefirst.polito.it:2222/rest/classify`

Response

Returns the standard HTTP status code of "200 – OK" and classify results in the JSON format.

Response JSON elements

JSON ELEMENT	DESCRIPTION	EXAMPLE
@service	String that identify the results of the classify call	Default value: "Classify"
Resources	Array of the results (its length is related to the "numTopics" parameter)	[{result1},{result2}]
@uri	DBpedia URI of the topic	http://dbpedia.org/resource/Stanley_Kubrick
@label	DBpedia label of the topic (it's related to the language parameter)	Stanley Kubrick
@title	Wikipedia page title of the topic (useful to invoke the Wikimedia API for text extraction)	Stanley Kubrick
@score	Value of the topic in relation to the context of the text analyzed	0.821541
@mergedTypes	DBpedia classes useful for <i>getVideo</i> and <i>getMap</i> requests	DBpedia: Person#DBpedia: Http://xmlns.com/foaf/0.1/Person#Schema: Person#DBpedia: Agent
@image	Wikipedia image url of the topic (for topics in which is not present, you can exploit the <i>getImage</i> service)	http://upload.wikimedia.org/wikipedia/en/9/90/Poster_of_the_movie_Stanley_Kubrick_-_A_Life_in_Pictures.jpg

Example of result in JSON

```
{
  "@service": "Classify",
  "Resources": [
    {
      "@uri": "http://dbpedia.org/resource/Stanley_Kubrick",
      "@label": "Stanley Kubrick",
      "@title": "Stanley Kubrick",
      "@score": "0.821541",
      "@mergedTypes":
      "DBpedia:Person#DBpedia:Http://xmlns.com/foaf/0.1/Person#Schema:Person#DBpedia:Agent#",
      "@image": ""
    },
    {
      "@uri": "http://dbpedia.org/resource/Arthur_Schnitzler",
      "@label": "Arthur Schnitzler",
      "@title": "Arthur Schnitzler",
      "@score": "0.7634723",
      "@mergedTypes":
      "DBpedia:Writer#DBpedia:Artist#DBpedia:Person#DBpedia:Http://xmlns.com/foaf/0.1/Person#Schema:Person#DBpedia:Agent#",
      "@image": "http://upload.wikimedia.org/wikipedia/commons/thumb/8/86/Arthur_Schnitzler_1912.jpg/461px-Arthur_Schnitzler_1912.jpg"
    },
    {
      "@uri": "http://dbpedia.org/resource/Stanley_Kubrick's_Boxes",
      "@label": "Stanley Kubrick's Boxes",
      "@title": "Stanley Kubrick's Boxes",
      "@score": "0.72381896",
      "@mergedTypes": "DBpedia:Film#Schema:Movie#DBpedia:Work#Schema:CreativeWork#",
      "@image": ""
    },
    {
      "@uri": "http://dbpedia.org/resource/Alan_Conway",
      "@label": "Alan Conway",
      "@title": "Alan Conway",
      "@score": "0.6253642",
      "@mergedTypes": "",
      "@image": ""
    },
    {
      "@uri": "http://dbpedia.org/resource/Eyes_Wide_Shut",
      "@label": "Eyes Wide Shut",
      "@title": "Eyes Wide Shut",
      "@score": "0.6202739",
      "@mergedTypes": "DBpedia:Film#Schema:Movie#DBpedia:Work#Schema:CreativeWork#",
      "@image": "http://upload.wikimedia.org/wikipedia/en/f/f2/Eyes_Wide_Shut.jpg"
    },
    {
      "@uri": "http://dbpedia.org/resource/Stanley_Kubrick:_A_Life_in_Pictures",
      "@label": "Stanley Kubrick: A Life in Pictures",
      "@title": "Stanley Kubrick: A Life in Pictures",
      "@score": "0.606057",
      "@mergedTypes": "DBpedia:Film#Schema:Movie#DBpedia:Work#Schema:CreativeWork#",
      "@image": "http://upload.wikimedia.org/wikipedia/en/9/90/Poster_of_the_movie_Stanley_Kubrick-A_Life_in_Pictures.jpg"
    },
    {
      "@uri": "http://dbpedia.org/resource/Dream_Story",
      "@label": "Dream Story",
      "@title": "Dream Story",
      "@score": "0.6058782",
      "@mergedTypes":
      "DBpedia:Book#Schema:Book#DBpedia:Http://purl.org/ontology/bibo/Book#DBpedia:WrittenWork#DBpedia:Work#Schema:CreativeWork#",
      "@image": "http://upload.wikimedia.org/wikipedia/en/c/c7/ArthurSchnitzler_DreamStory.jpg"
    }
  ]
}
```

getImage

Description

The getImage service allows you to find an image related to a specific DBpedia resource. It uses the DBpedia URI and the title of the Wikipedia entry page. Usually it could be useful when there @image field of classify service result is empty.

Request - GET

`http://tellmefirst.polito.it:2222/rest/getImage?uri={uri}&label={wikipedia+title}&key={apiKey}`

Request Headers

HEADER	DESCRIPTION	VALID VALUES
Accept	The MIME type of the returned data format (JSON)	application/json

Request URI Parameters

PARAMETER	DESCRIPTION	EXAMPLE
uri	DBpedia URI	<code>http://dbpedia.org/resource/Stanley_Kubrick</code>
label	Wikipedia entry title	Stanley+Kubrick
key	API key or empty string value	""

Request example

- `http://tellmefirst.polito.it:2222/rest/getImage?uri=http%3A%2F%2Fdbpedia.org%2Fresource%2FStanley_Kubrick&label=Stanley+Kubrick&key=`

Response

Returns the standard HTTP status code of "200 – OK" and getImage results in the JSON format.

Response JSON elements

JSON ELEMENT	DESCRIPTION	EXAMPLE
@imageURL	url of the image	<code>http://upload.wikimedia.org/wikipedia/{...}</code>

getNews

Description

The getNews service allows you to find the New York Times (<http://www.nytimes.com/>) news related to a specific topic, using the DBpedia URI.

Request - GET

`http://tellmefirst.polito.it:2222/rest/getNews?uri={uri}&key=`

Request Headers

HEADER	DESCRIPTION	VALID VALUES
Accept	The MIME type of the returned data format (JSON)	application/json

Request URI Parameters

PARAMETER	DESCRIPTION	EXAMPLE
uri	DBpedia URI	<code>http://dbpedia.org/resource/Stanley_Kubrick</code>
key	API key or empty string value	<code>""</code>

Request example

- `http://tellmefirst.polito.it:2222/rest/getNews?uri=http://dbpedia.org/resource/Stanley_Kubrick&key=`

Response

Returns the standard HTTP status code of "200 – OK" and getNews results in the JSON format.

For more details about the results provided by the New York Times API you can see: http://developer.nytimes.com/docs/article_search_api.

getText

Description

The getText service allows you to identify the title of the Wikipedia of a DBpedia resource page from which you can retrieve the text using Wikimedia API (<http://www.mediawiki.org/wiki/API>).

NOTE: getText service works only for the Italian language.

Request - GET

`http://tellmefirst.polito.it:2222/rest/getText?uri={uri}&lang={text language}&key={apiKey}`

Request Headers

HEADER	DESCRIPTION	VALID VALUES
Accept	The MIME type of the returned data format (JSON)	application/json

Request URI Parameters

PARAMETER	DESCRIPTION	EXAMPLE
uri	DBpedia URI	<code>http://dbpedia.org/resource/Stanley_Kubrick</code>
lang	Language of the text	italian
key	API key or empty string value	""

Request example

- `http://tellmefirst.polito.it:2222/rest/getText?uri=http://dbpedia.org/resource/Stanley_Kubrick&lang=italian&key=`

Response

Returns the standard HTTP status code of "200 – OK" and getText results in the JSON format.

Response JSON elements

JSON ELEMENT	DESCRIPTION	EXAMPLE
@title	Wikipedia entry title	Italia (http://it.wikipedia.org/wiki/Italia)

getVideo

Description

The getVideo service allows you to retrieve the first video on YouTube related to a specific DBpedia URI. For retrieving the correct result, getVideo exploit the DBpedia and the Freebase classes of the DBpedia entity.

Request - GET

`http://tellmefirst.polito.it:2222/rest/getVideo?uri={uri}&label={label+of+uri}&type={DBpedia or Freebase class}&key=`

Request Headers

HEADER	DESCRIPTION	VALID VALUES
Accept	The MIME type of the returned data format (JSON)	application/json

Request URI Parameters

PARAMETER	DESCRIPTION	EXAMPLE
uri	DBpedia URI	<code>http://dbpedia.org/resource/Stanley_Kubrick</code>
label	DBpedia label	<code>Stanley+Kubrick</code>
type	DBpedia or Freebase class	<code>DBpedia:Person#{...}</code>
key	API key or empty string value	<code>""</code>

Request example with curl

- `http://tellmefirst.polito.it:2222/rest/getVideo?uri=http%3A%2F%2Fdbpedia.org%2Fresource%2FStanley_Kubrick&label=Stanley+Kubrick&key=`

Response

Returns the standard HTTP status code of "200 – OK" and getText results in the JSON format.

Response JSON elements

JSON ELEMENT	DESCRIPTION	EXAMPLE
@videoURL	URL of the YouTube video	<code>http://youtu.be/yyt6aFI_sfA</code>

getMap

Description

The getMap service allows you to retrieve the latitude and longitude of a DBpedia resource, only if it's an instance of the DBpedia place class.

Request - GET

`http://tellmefirst.polito.it:2222/rest/getMap?uri={uri}&type=DBpedia:Place&key=`

Request Headers

HEADER	DESCRIPTION	VALID VALUES
Accept	The MIME type of the returned data format (JSON)	application/json

Request URI Parameters

PARAMETER	DESCRIPTION	EXAMPLE
uri	DBpedia URI	<code>http://dbpedia.org/resource/Turin</code>
type	DBpedia place class	DBpedia:Place
key	API key or empty string value	""

Request example with curl

- `http://tellmefirst.polito.it:2222/rest/getMap?uri=http://dbpedia.org/resource/Turin&type=DBpedia:Place&key=`

Response

Returns the standard HTTP status code of "200 – OK" and getText results in the JSON format.

Response JSON elements

JSON ELEMENT	DESCRIPTION	EXAMPLE
@lat	Latitude coordinate	45.0667
@long	Longitude coordinate	7.7