

# nytR: An R package for the NY Times API

Shane Conway

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## Abstract

The `nytR` package creates a simple interface for the NY Times API. The Times API provides access to various different data sources. At present `nytR` only exposes parts of the Congress API for vote data.

## 1 Introduction

There is currently no easy way to pull congressional vote data into R. Given the usage of R within the political science community, and the potential wealth of data available, `nytR` aims to fill this gap.

This is still very much a beta version. I expect to expose more data in future versions.

## 2 Configuration

The NY Times requires each user to register for their own API key so that they can track usage. This can be done in a few quick steps on the key registration page: <http://developer.nytimes.com/apps/register>.

Once you have a key for the Congress API, the easiest way to use the package is to create an environment variable called `NYTIMES_CONGRESS` which contains the key (this is used every time you try to access the live data). You can confirm that this is working by calling `Sys.getenv("NYTIMES_CONGRESS")` from within R.

## 3 Congressional data

Currently, only the API that has been exposed is the Congress API.

### 3.1 Vote data

By default, the package gets roll-call vote data:

```
> library(nytR)
> xml <- getNYTCongress(110, "senate", 2, 194)
> x <- voteSummary(xml)
> x$description
```

```
[1] "H.R. 4137 Conference Report; College Opportunity and Affordability Act of 2008"
```

There are a number of utility functions for parsing the XML output. The `parseVotes` function returns most of these results as a list of lists.

```
> votes <- parseVotes(xml)
> votes$total.votes
```

```
$yes
[1] "83"
```

```
$no
[1] "8"
```

```
$present
[1] "1"
```

```
$not_voting
[1] "8"
```

```
$margin
[1] "75"
```

This also includes the raw vote data.

```
> require(xtable)
> xtable(head(votes$votes), caption = "List of votes by member",
+        label = "tab:one", table.placement = "tbp", caption.placement = "top")
```

	member_id	vote_position
position	A000069	Yes
position1	A000360	No
position2	A000109	Yes
position3	B001261	Yes
position4	B000243	Yes
position5	B001233	Yes

Table 1: List of votes by member

The `getNYTCongress` function currently supports 5 different vote types: `roll.call`, `missed.votes`, `party.votes`, `nomination.votes`, and `members` (see next section). `missed.votes`, `party.votes`, and `members` can all be parsed with the `em voteTypeDetail` function, while `nomination.votes` are processed with the `em voteNomDetail` function.

```
> xml <- getNYTCongress(type = "party.votes", 110, "senate")
> head(x <- voteTypeDetail(xml))
```

```
      id          name party state total_votes votes_with_party
1 S000663 Olympia J. Snowe   R    ME          657           413
2 C001035      Susan Collins   R    ME          657           433
```

```

3 S000709 Arlen Specter R PA 657 447
4 S001142 Gordon Harold Smith R OR 657 460
5 V000126 George V. Voinovich R OH 657 474
6 C001057 Norm Coleman R MN 657 488

```

```

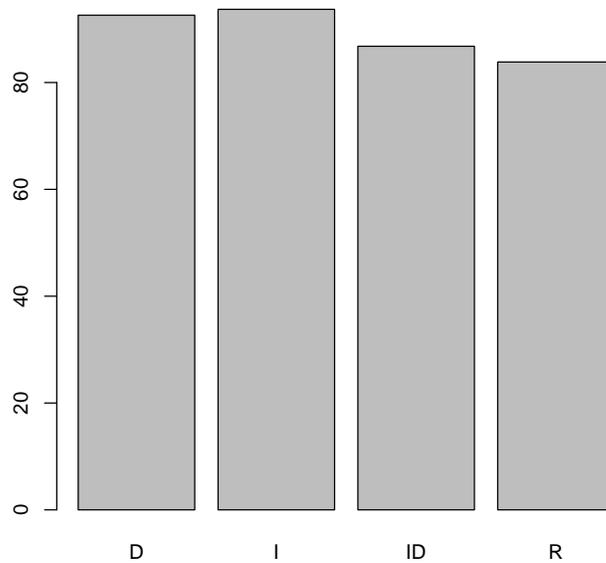
party_votes_pct rank notes
1 62.86 1 NULL
2 65.91 2 NULL
3 69.09 3 NULL
4 70.55 4 Defeated in general election
5 73.49 5 NULL
6 76.97 6 NULL

```

```

> x.summary <- do.call("rbind", x.summary <- by(x$party_votes_pct,
+ x$party, summary))
> barplot(x.summary[, "Mean"])

```



### 3.2 Members data

Currently, the primary function for getting member data is with *getNYT-Congress*:

```

> xml <- getNYTCongress(type = "members", 110, "senate")
> xtable(head(voteTypeDetail(xml))[, c(1, 2, 6, 7, 8)], caption = "List of senate members from t
+ label = "tab:one", table.placement = "tbp", caption.placement = "top")

```

	id	name	party	state	missed_votes_pct
1	A000069	Daniel K. Akaka	D	HI	0.30
2	A000109	Wayne A. Allard	R	CO	3.50
3	A000360	Lamar Alexander	R	TN	4.41
4	B000243	Max Baucus	D	MT	0.30
5	B000382	Robert F. Bennett	R	UT	1.22
6	B000444	Joseph R. Biden Jr.	D	DE	31.81

Table 2: List of senate members from the 110th congress

A *getMemberDetail* function also exists which retrieves XML details by member id.

## 4 Future plans

Future enhancements to the package will include:

- Expose all of the Congress API.
- Complete documentation and provide more meaningful examples
- Introduce other APIs (e.g. real estate, article search)