

alm tutorial

What are article level metrics?

Glad you asked. The canonical URL for this is perhaps altmetrics.org. Basically it is a metric that measures something about an article. This is in stark contrast to journal level metrics, like the Journal Impact Factor.

Are there other altmetrics data providers?

Yes indeedy.

- [ImpactStory](#)
- [Altmetric.com](#)
- [PlumAnalytics](#)

Authentication

You aren't currently not required to use an API key to access the PLoS ALM API, but soon will need to.

Get your PLoS API key [here](#)

Put your API key in your .Rprofile file using exactly this: `options(PlosApiKey = "YOUalmAPIKEY")`, and the functions within this package will be able to use your API key without you having to enter it every time you run a search.

Install and load

You can get this package by installing via `install_github()` within Hadley Wickham's devtools package.

```
install.packages("devtools")
require(devtools)
install_github("alm", "rOpenSci")
```

```
library(alm)
```

The default call with either doi, pmid, pmcid, or mdid without specifying an argument for info

(We'll not print a few columns so the table prints nicely)

```
alm(doi = "10.1371/journal.pone.0029797")[, -c(6:8)]
```

	.id	pdf	html	shares	groups	total
1	citeulike	NA	NA	1	NA	1
2	crossref	NA	NA	NA	NA	7
3	nature	NA	NA	NA	NA	4
4	pubmed	NA	NA	NA	NA	2
5	scopus	NA	NA	NA	NA	7
6	counter	2409	29017	NA	NA	31537

7	researchblogging	NA	NA	NA	NA	1
8	pmc	64	416	NA	NA	480
9	facebook	NA	NA	0	NA	0
10	mendeley	NA	NA	69	0	69
11	twitter	NA	NA	NA	NA	12
12	wikipedia	NA	NA	NA	NA	50
13	scienceseeker	NA	NA	NA	NA	0
14	relativemetric	NA	NA	NA	NA	150729
15	f1000	NA	NA	NA	NA	0
16	figshare	0	9	NA	NA	9
17	pmceurope	NA	NA	NA	NA	4
18	pmceuropedata	NA	NA	NA	NA	49
19	openedition	NA	NA	NA	NA	0
20	wordpress	NA	NA	NA	NA	0
21	reddit	NA	NA	NA	NA	0
22	datacite	NA	NA	NA	NA	0
23	copernicus	NA	NA	NA	NA	0
24	articlecoverage	NA	NA	NA	NA	0
25	articlecoveragecurated	NA	NA	NA	NA	0
26	plos_comments	NA	NA	NA	NA	16
27	twitter_search	NA	NA	NA	NA	0

Details for a single DOI

```
out <- alm(doi = "10.1371/journal.pone.0029797", info = "detail")
## totals
out[["totals"]][, -c(6:8)]
```

	.id	pdf	html	shares	groups	total
1	citeulike	NA	NA	1	NA	1
2	crossref	NA	NA	NA	NA	7
3	nature	NA	NA	NA	NA	4
4	pubmed	NA	NA	NA	NA	2
5	scopus	NA	NA	NA	NA	7
6	counter	2409	29017	NA	NA	31537
7	researchblogging	NA	NA	NA	NA	1
8	pmc	64	416	NA	NA	480
9	facebook	NA	NA	0	NA	0
10	mendeley	NA	NA	69	0	69
11	twitter	NA	NA	NA	NA	12
12	wikipedia	NA	NA	NA	NA	50
13	scienceseeker	NA	NA	NA	NA	0
14	relativemetric	NA	NA	NA	NA	150729
15	f1000	NA	NA	NA	NA	0
16	figshare	0	9	NA	NA	9
17	pmceurope	NA	NA	NA	NA	4
18	pmceuropedata	NA	NA	NA	NA	49
19	openedition	NA	NA	NA	NA	0
20	wordpress	NA	NA	NA	NA	0
21	reddit	NA	NA	NA	NA	0
22	datacite	NA	NA	NA	NA	0
23	copernicus	NA	NA	NA	NA	0

24	articlecoverage	NA	NA	NA	NA	0
25	articlecoveragecurated	NA	NA	NA	NA	0
26	plos_comments	NA	NA	NA	NA	16
27	twitter_search	NA	NA	NA	NA	0

```
## history
head(out[["history"]])
```

	.id	dates	totals
1	citeulike	2014-03-04	1
2	citeulike	2014-01-27	1
3	crossref	2014-03-05	7
4	crossref	2014-01-26	7
5	nature	2014-01-30	4
6	pubmed	2014-03-04	2

Search using various identifiers, including pubmed id, pmc id, and mendeley id

```
# A single PubMed ID (pmid)
alm(pmid = 22590526)[, -c(6:8)]
```

	.id	pdf	html	shares	groups	total
1	citeulike	NA	NA	5	NA	5
2	crossref	NA	NA	NA	NA	3
3	nature	NA	NA	NA	NA	1
4	pubmed	NA	NA	NA	NA	5
5	scopus	NA	NA	NA	NA	7
6	counter	1052	15026	NA	NA	16120
7	researchblogging	NA	NA	NA	NA	1
8	pmc	31	119	NA	NA	150
9	facebook	NA	NA	66	NA	171
10	mendeley	NA	NA	63	0	63
11	twitter	NA	NA	NA	NA	151
12	wikipedia	NA	NA	NA	NA	0
13	scienceseeker	NA	NA	NA	NA	0
14	relativemetric	NA	NA	NA	NA	33527
15	f1000	NA	NA	NA	NA	0
16	figshare	NA	NA	NA	NA	0
17	pmceurope	NA	NA	NA	NA	5
18	pmceuropedata	NA	NA	NA	NA	0
19	openedition	NA	NA	NA	NA	0
20	wordpress	NA	NA	NA	NA	1
21	reddit	NA	NA	NA	NA	0
22	datacite	NA	NA	NA	NA	0
23	copernicus	NA	NA	NA	NA	0
24	articlecoverage	NA	NA	NA	NA	0
25	articlecoveragecurated	NA	NA	NA	NA	0
26	plos_comments	NA	NA	NA	NA	3
27	twitter_search	NA	NA	NA	NA	0

```
# A single PubMed Central ID (pmcid)
alm(pmcid = 212692)[, -c(6:8)]
```

	.id	pdf	html	shares	groups	total
1	citeulike	NA	NA	8	NA	8
2	crossref	NA	NA	NA	NA	152
3	nature	NA	NA	NA	NA	0
4	pubmed	NA	NA	NA	NA	156
5	scopus	NA	NA	NA	NA	326
6	counter	2554	20447	NA	NA	23155
7	researchblogging	NA	NA	NA	NA	0
8	pmc	2331	4898	NA	NA	7229
9	facebook	NA	NA	0	NA	0
10	mendeley	NA	NA	104	0	104
11	twitter	NA	NA	NA	NA	0
12	wikipedia	NA	NA	NA	NA	0
13	scienceseeker	NA	NA	NA	NA	0
14	relativemetric	NA	NA	NA	NA	1346375
15	f1000	NA	NA	NA	NA	0
16	figshare	1	6	NA	NA	7
17	pmceurope	NA	NA	NA	NA	192
18	pmceuropedata	NA	NA	NA	NA	52
19	openedition	NA	NA	NA	NA	0
20	wordpress	NA	NA	NA	NA	0
21	reddit	NA	NA	NA	NA	0
22	datacite	NA	NA	NA	NA	0
23	copernicus	NA	NA	NA	NA	0
24	articlecoverage	NA	NA	NA	NA	0
25	articlecoveragecurated	NA	NA	NA	NA	0
26	plos_comments	NA	NA	NA	NA	0
27	twitter_search	NA	NA	NA	NA	0

```
# A single Mendeley UUID (mdid)
alm(mdid = "35791700-6d00-11df-a2b2-0026b95e3eb7")[, -c(6:8)]
```

NULL

Search on many identifiers

```
dois <- c("10.1371/journal.pone.0001543", "10.1371/journal.pone.0040117", "10.1371/journal.pone.0029797",
"10.1371/journal.pone.0039395")
out <- alm(doi = dois)
lapply(out, head)
```

```
[[1]]
      .id pdf html shares groups comments likes citations total
1 citeulike NA  NA    0    NA      NA      NA      NA      0
2 crossref  NA  NA   NA    NA      NA      NA      3      3
3  nature   NA  NA   NA    NA      NA      NA      0      0
```

4	pubmed	NA	NA	NA	NA	NA	NA	2	2
5	scopus	NA	NA	NA	NA	NA	NA	5	5
6	counter	310	1504	NA	NA	NA	NA	NA	1830

[[2]]

	.id	pdf	html	shares	groups	comments	likes	citations	total
1	citeulike	NA	NA	0	NA	NA	NA	NA	0
2	crossref	NA	NA	NA	NA	NA	NA	0	0
3	nature	NA	NA	NA	NA	NA	NA	0	0
4	pubmed	NA	NA	NA	NA	NA	NA	1	1
5	scopus	NA	NA	NA	NA	NA	NA	3	3
6	counter	208	1040	NA	NA	NA	NA	NA	1271

[[3]]

	.id	pdf	html	shares	groups	comments	likes	citations	total
1	citeulike	NA	NA	1	NA	NA	NA	NA	1
2	crossref	NA	NA	NA	NA	NA	NA	7	7
3	nature	NA	NA	NA	NA	NA	NA	4	4
4	pubmed	NA	NA	NA	NA	NA	NA	2	2
5	scopus	NA	NA	NA	NA	NA	NA	7	7
6	counter	2409	29017	NA	NA	NA	NA	NA	31537

[[4]]

	.id	pdf	html	shares	groups	comments	likes	citations	total
1	citeulike	NA	NA	0	NA	NA	NA	NA	0
2	crossref	NA	NA	NA	NA	NA	NA	7	7
3	nature	NA	NA	NA	NA	NA	NA	0	0
4	pubmed	NA	NA	NA	NA	NA	NA	7	7
5	scopus	NA	NA	NA	NA	NA	NA	11	11
6	counter	429	2605	NA	NA	NA	NA	NA	3077

Get altmetrics by year

You can also get metrics by day (`sum_metrics='day'`) or month (`sum_metrics='month'`)

```
alm(doi = "10.1371/journal.pone.0036240", sum_metrics = "year")[, -c(6:8)]
```

	.id	year	pdf	html	shares	citations	total	x
1	citeulike	2012	NA	NA	5	NA	5	NA
2	crossref	2013	NA	NA	NA	3	3	NA
3	nature	NA	NA	NA	NA	NA	NA	NA
4	pubmed	NA	NA	NA	NA	NA	NA	NA
5	scopus	NA	NA	NA	NA	NA	NA	NA
6	counter	2012	699	10502	NA	NA	11234	NA
7	counter	2013	299	3605	NA	NA	3911	NA
8	counter	2014	54	919	NA	NA	975	NA
9	researchblogging	2013	NA	NA	NA	1	1	NA
10	pmc	2012	16	53	NA	NA	69	NA
11	pmc	2013	13	66	NA	NA	79	NA
12	pmc	2014	2	0	NA	NA	2	NA
13	facebook	NA	NA	NA	NA	NA	NA	NA
14	mendeley	NA	NA	NA	NA	NA	NA	NA
15	twitter	2012	NA	NA	NA	NA	103	NA

16	twitter	2013	NA	NA	NA	NA	33	NA
17	twitter	2014	NA	NA	NA	NA	15	NA
18	wikipedia		NA	NA	NA	NA	NA	NA
19	scienceseeker		NA	NA	NA	NA	NA	NA
20	relativemetric		NA	NA	NA	NA	NA	NA
21	f1000		NA	NA	NA	NA	NA	NA
22	figshare		NA	NA	NA	NA	NA	NA
23	pmceurope		NA	NA	NA	NA	NA	NA
24	pmceuropedata		NA	NA	NA	NA	NA	NA
25	openedition		NA	NA	NA	NA	NA	NA
26	wordpress	2012	NA	NA	NA	1	1	NA
27	reddit		NA	NA	NA	NA	NA	NA
28	datacite		NA	NA	NA	NA	NA	NA
29	copernicus		NA	NA	NA	NA	NA	NA
30	articlecoverage		NA	NA	NA	NA	NA	NA
31	articlecoveragecurated		NA	NA	NA	NA	NA	NA
32	plos_comments		NA	NA	NA	NA	NA	NA
33	twitter_search		NA	NA	NA	NA	NA	NA

Output an-easy-to-combine-with-other-results data.frame

```
alm(doi = "10.1371/journal.pone.0035869", total_details = TRUE)[, 3:10]
```

	publication_date	citeulike_pdf	citeulike_html	citeulike_shares
1	2012-05-11T07:00:00Z	NA	NA	25
	citeulike_groups	citeulike_comments	citeulike_likes	citeulike_citations
1	NA	NA	NA	NA

Get detailed data for altmetrics using almevents

```
out <- almevents(doi = "10.1371/journal.pone.0029797")
names(out) # names of sources
```

[1]	"citeulike"	"crossref"
[3]	"nature"	"pubmed"
[5]	"scopus"	"counter"
[7]	"researchblogging"	"pmc"
[9]	"facebook"	"mendeley"
[11]	"twitter"	"wikipedia"
[13]	"scienceseeker"	"relativemetric"
[15]	"f1000"	"figshare"
[17]	"pmceurope"	"pmceuropedata"
[19]	"openedition"	"wordpress"
[21]	"reddit"	"datacite"
[23]	"copernicus"	"articlecoverage"
[25]	"articlecoveragecurated"	"plos_comments"
[27]	"twitter_search"	

```
out <- out[!out %in% c("sorry, no events content yet", "parser not written yet")] # remove those with :
out[["pmc"]] # get the results for PubMed Central
```

	abstract	cited-by	figure	full-text	month	pdf	scanned-page-browse
1	1	0	9	51	1	8	0
2	0	0	11	15	2	4	0
3	0	0	0	11	3	4	0
4	1	0	0	6	4	2	0
5	0	0	0	5	5	1	0
6	0	0	2	7	6	2	0
7	1	0	3	6	7	3	0
8	1	0	0	5	8	0	0
9	0	0	3	14	9	5	0
10	1	0	1	20	10	4	0
11	0	0	1	13	12	1	0
12	0	0	0	13	1	7	0
13	1	0	0	22	3	2	0
14	0	0	0	13	2	2	0
15	1	1	3	45	4	4	0
16	1	0	0	10	11	1	0
17	0	0	0	18	5	5	0
18	0	0	0	12	6	1	0
19	0	0	0	27	7	1	0
20	0	0	0	21	8	0	0
21	0	0	0	14	9	0	0
22	0	0	2	14	10	3	0
23	6	0	0	18	11	2	0
24	0	0	0	14	12	1	0
25	0	0	0	22	1	1	0

	scanned-summary	supp-data	unique-ip	year
1	0	0	42	2012
2	0	2	11	2012
3	0	0	12	2012
4	0	0	6	2012
5	0	0	5	2012
6	0	0	9	2012
7	0	0	8	2012
8	0	0	4	2012
9	0	0	13	2012
10	0	0	16	2012
11	0	0	12	2012
12	0	0	14	2013
13	0	0	20	2013
14	0	0	10	2013
15	0	1	24	2013
16	0	0	9	2012
17	0	1	21	2013
18	0	1	11	2013
19	0	0	14	2013
20	0	0	13	2013
21	0	1	13	2013
22	0	0	15	2013
23	0	0	16	2013

```
24          0          0          9 2013
25          0          0         16 2014
```

```
out[["twitter"]][1:3, ] # get the results for twitter
```

```
          id
1 237088032224849920
2 237088322290331648
3 263798980054487041
```

```
1          #PLOS: Ecological Guild Evolution and the Discovery of the World's Smallest
2          #PLOS: Ecological Guild Evolution and the Discovery of the World's Smallest
3 Happy #Halloween from Maria @PLOSONE, dressed as a tiny frog, complete with dime for scale! http://t.
```

```
          created_at          user          user_name
1 Sun Aug 19 07:26:06 +0000 2012          opdebult Jan ten Hoopen
2 Sun Aug 19 07:27:15 +0000 2012          forestalis forestalis.org
3 Thu Nov 01 00:25:53 +0000 2012 multidiscipline Lindsay Kelley
```

```
          user_profile_image
1          http://a0.twimg.com/profile_images/1741153180/Tidan_normal.jpg
2          http://a0.twimg.com/profile_images/654250700/ForestalisIco_normal.jpg
3 http://a0.twimg.com/profile_images/1910116023/261235_920680811178_6708085_43508969_7138379_n_normal.jpg
```

Alt-metrics total citations from all sources.

```
almtotals(doi = "10.1371/journal.pbio.0000012")
```

```
          views shares bookmarks citations
1 30384          0          112          326
```

Get title of article by inputting the doi for the article.

```
almtitle(doi = "10.1371/journal.pbio.0000012")
```

```
[1] "Genome-Wide RNAi of C. elegans Using the Hypersensitive rrf-3 Strain Reveals Novel Gene Functions"
```

Retrieve and plot PLOS article-level metrics signposts.

```
dat <- signposts(doi = "10.1371/journal.pone.0029797")
plot_signposts(input = dat)
```

Or plot many identifiers gives a line chart

```
dois <- c("10.1371/journal.pone.0001543", "10.1371/journal.pone.0040117", "10.1371/journal.pone.0029797",
          "10.1371/journal.pone.0039395")
dat <- signposts(doi = dois)
plot_signposts(input = dat) + theme_grey(base_size = 12)
```

Or make an interactive chart by doing `plot_signposts(input=dat, type="multiBarChart")`. Try it out! It should open in your browser and you can interact with it.

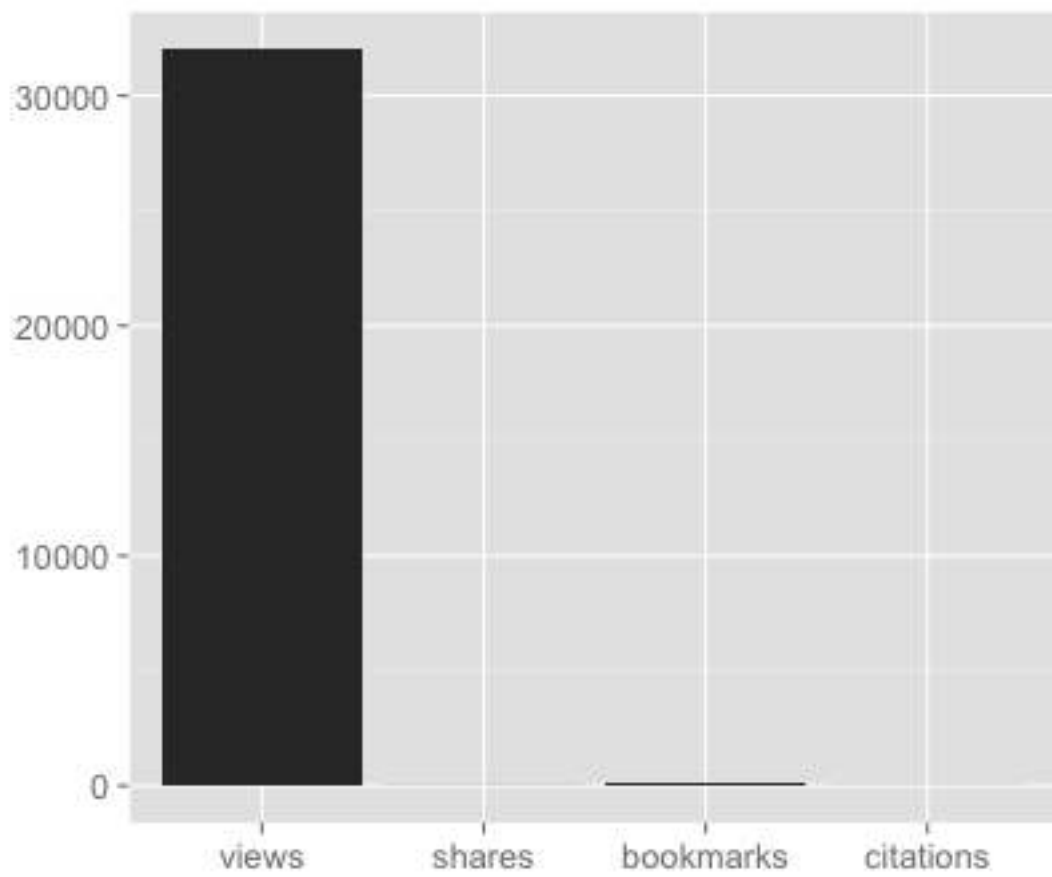


Figure 1: plot of chunk signposts1

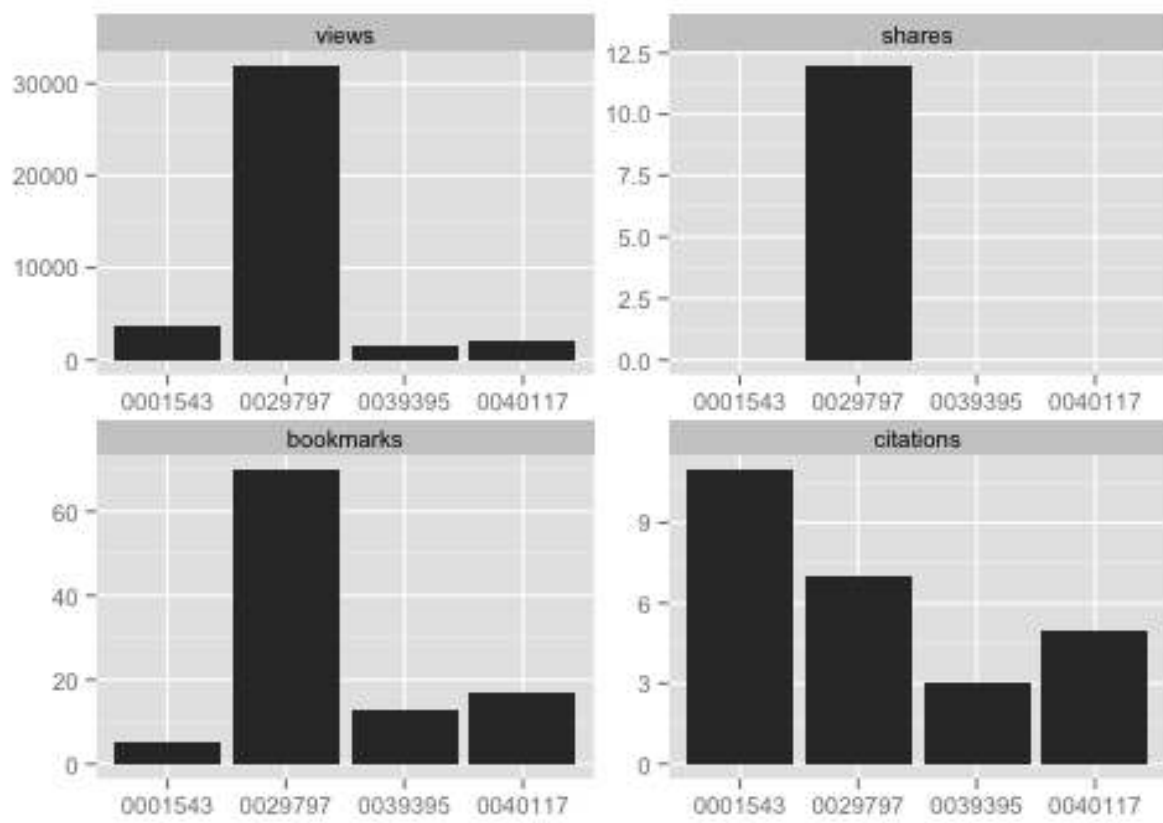


Figure 2: plot of chunk signposts2

Density and histogram plots from PLOS Article Level Metrics data

Note: Do you the key below in the `searchplos` call in this example, but if you plan to use `rplos` more, get your own API key [here](#).

```
library(rplos)
library(plyr)
dois <- searchplos(q = "science", fl = "id", fq = list("cross_published_journal_key:PLoS ONE",
  "doc_type:full", "publication_date:[2010-01-01T00:00:00Z TO 2010-12-31T23:59:59Z]"),
  limit = 200)
```

Remove non-full article DOIs

```
dois <- dois$id
dois <- dois[!grepl("annotation", dois)]
```

Collect altmetrics data and combine to a `data.frame` with `ldply`

```
alm <- alm(doi = dois, total_details = TRUE)
alm <- ldply(alm)
```

The default plot

```
plot_density(alm)
```

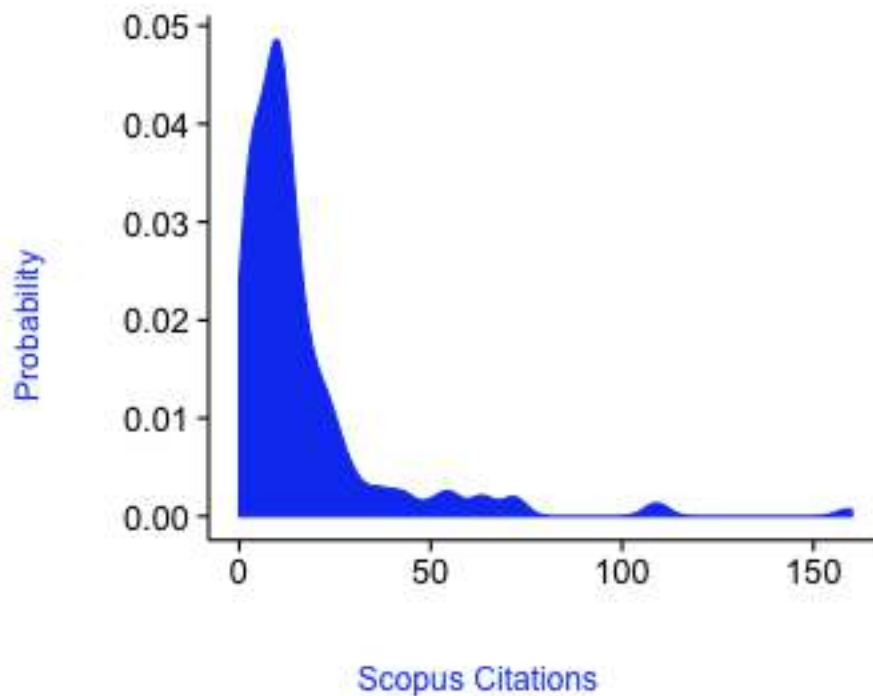


Figure 3: plot of chunk `plot_densityplot1`

You can change the color of the density plot

```
plot_density(alm, color = "#EFA5A5")
```

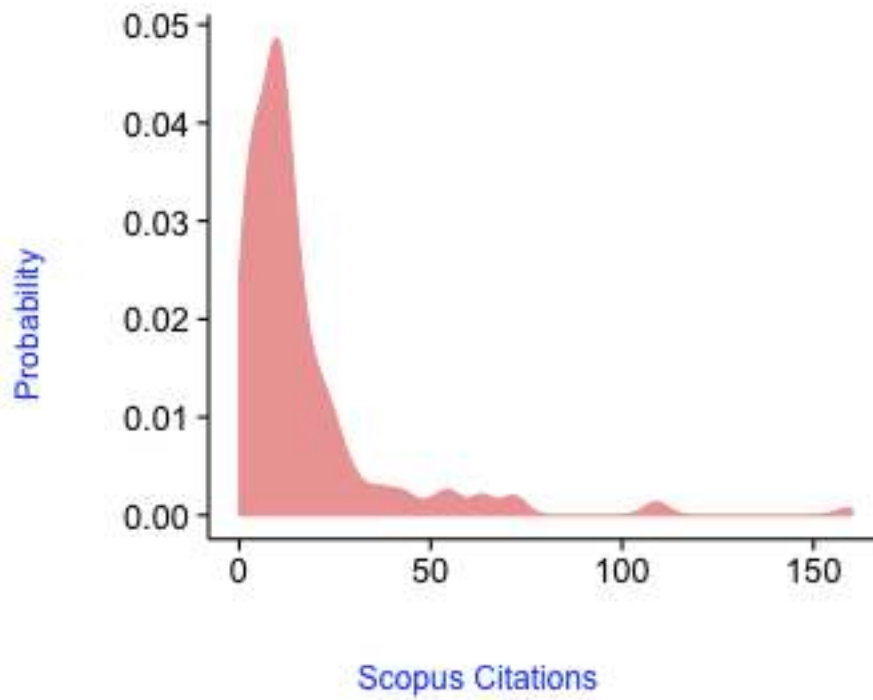


Figure 4: plot of chunk plot_densityplot2

Pass in a title or description subtending the title

```
plot_density(alm, title = "Scopus citations from 2010")
```

Plot a particular source

```
names(alm)[1:35]
```

[1] ".id"	"doi"	"title"
[4] "publication_date"	"citeulike_pdf"	"citeulike_html"
[7] "citeulike_shares"	"citeulike_groups"	"citeulike_comments"
[10] "citeulike_likes"	"citeulike_citations"	"citeulike_total"
[13] "crossref_pdf"	"crossref_html"	"crossref_shares"
[16] "crossref_groups"	"crossref_comments"	"crossref_likes"
[19] "crossref_citations"	"crossref_total"	"nature_pdf"
[22] "nature_html"	"nature_shares"	"nature_groups"
[25] "nature_comments"	"nature_likes"	"nature_citations"
[28] "nature_total"	"pubmed_pdf"	"pubmed_html"
[31] "pubmed_shares"	"pubmed_groups"	"pubmed_comments"
[34] "pubmed_likes"	"pubmed_citations"	

Scopus citations from 2010

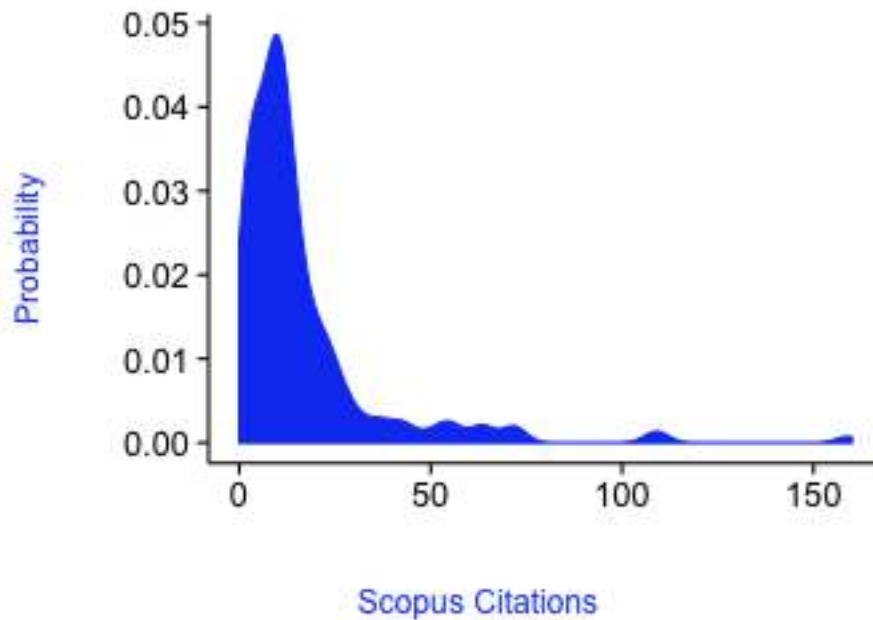


Figure 5: plot of chunk plot_densityplot3

```
plot_density(input = alm, source = "crossref_citations")
```

Plot many sources in different panels in the same plot, and pass in colors just for fun

```
plot_density(input = alm, source = c("counter_total", "crossref_citations",
  "twitter_total", "wos_citations"), color = c("#83DFB4", "#EFA5A5", "#CFD470",
  "#B2C9E4")) + theme_grey(base_size = 12)
```

NULL

CrossRef article level metrics

Remember to get your api key from CrossRef, pass it in in the key parameter. Notice that we are passing the base url for the Crossref API, whereas the default is for the PLOS url <http://alm.plos.org/api/v3/articles>.

```
url <- "http://alm.labs.crossref.org/api/v3/articles"
dois <- c("10.1371/journal.pone.0086859", "10.1038/nature12990", "10.5860/choice.51-3037")
alm(doi = dois, url = url, key = getOption("crossrefalmkey"))
```

```
[[1]]
      .id pdf html shares groups comments likes citations total
1  crossref NA  NA    NA     NA      NA    NA         0      0
2  mendeley NA  NA    NA  TRUE     NA    NA         NA      0
```

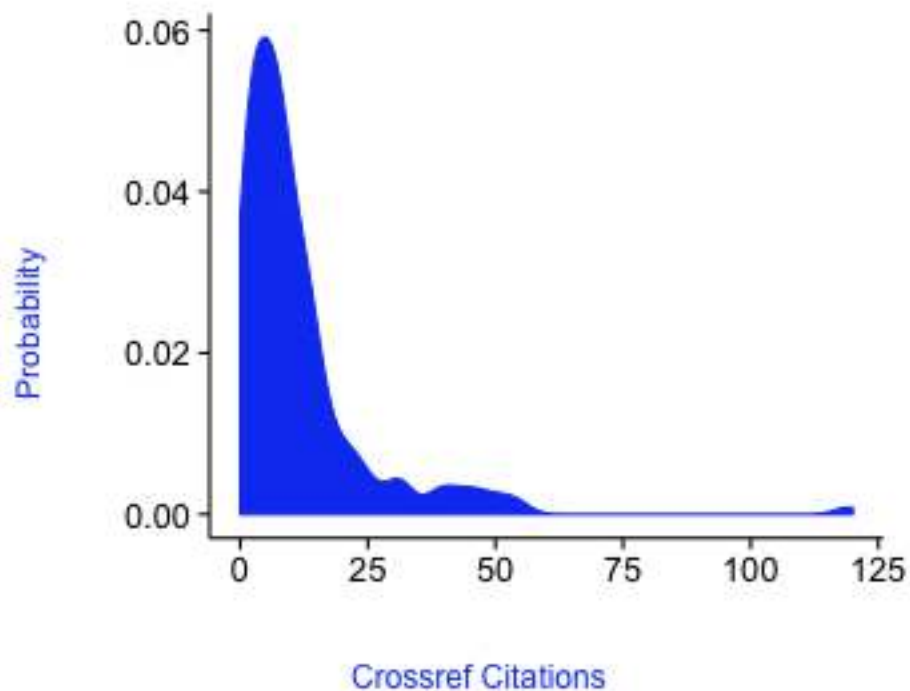


Figure 6: plot of chunk plot_densityplot4

3	facebook	NA	NA	0	NA	0	0	NA	0
4	researchblogging	NA	NA	NA	NA	NA	NA	0	0
5	pmc	NA	NA	NA	NA	NA	NA	0	0
6	copernicus	NA	NA	NA	NA	NA	NA	NA	0
7	twitter_search	NA	NA	NA	NA	NA	NA	0	0
8	citeulike	NA	NA	0	NA	NA	NA	NA	0
9	pubmed	NA	NA	NA	NA	NA	NA	0	0
10	wordpress	NA	NA	NA	NA	NA	NA	0	0
11	reddit	NA	NA	NA	NA	NA	NA	0	0
12	wikipedia	NA	NA	NA	NA	NA	NA	3	3
13	doi_resolution	NA	NA	NA	NA	NA	NA	0	0
14	datacite	NA	NA	NA	NA	NA	NA	0	0
15	pmceurope	NA	NA	NA	NA	NA	NA	0	0
16	pmceuropedata	NA	NA	NA	NA	NA	NA	0	0
17	scienceseeker	NA	NA	NA	NA	NA	NA	0	0
18	nature	NA	NA	NA	NA	NA	NA	0	0
19	openedition	NA	NA	NA	NA	NA	NA	0	0

[[2]]

	.id	pdf	html	shares	groups	comments	likes	citations	total
1	openedition	NA	NA	NA	NA	NA	NA	0	0
2	nature	NA	NA	NA	NA	NA	NA	0	0
3	scienceseeker	NA	NA	NA	NA	NA	NA	0	0
4	pmceuropedata	NA	NA	NA	NA	NA	NA	0	0
5	pmceurope	NA	NA	NA	NA	NA	NA	9	9
6	datacite	NA	NA	NA	NA	NA	NA	0	0

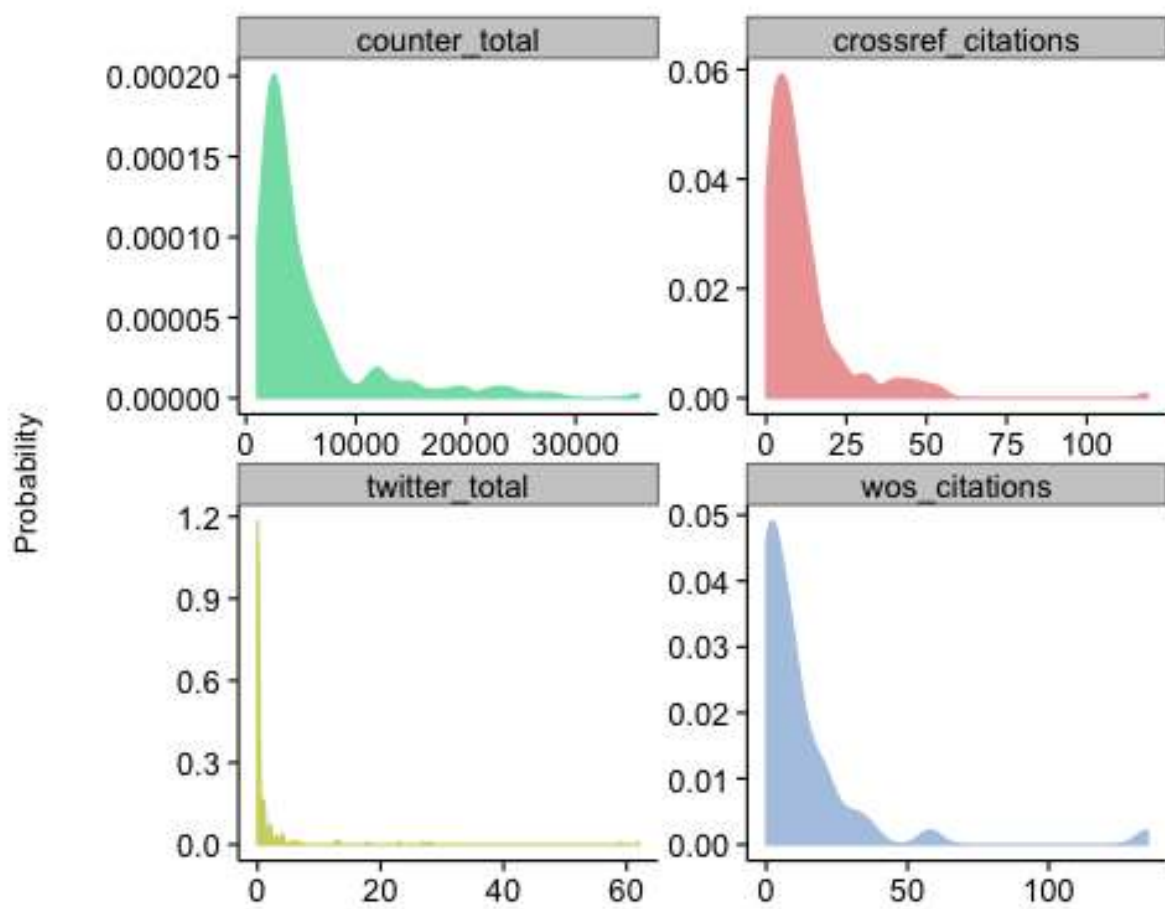


Figure 7: plot of chunk plot_densityplot5

7	doi_resolution	NA	NA	NA	NA	NA	NA	0	0
8	wikipedia	NA	NA	NA	NA	NA	NA	0	0
9	reddit	NA	NA	NA	NA	NA	NA	0	0
10	crossref	NA	NA	NA	NA	NA	NA	0	0
11	wordpress	NA	NA	NA	NA	NA	NA	0	0
12	pubmed	NA	NA	NA	NA	NA	NA	13	13
13	citeulike	NA	NA	0	NA	NA	NA	NA	0
14	twitter_search	NA	NA	NA	NA	NA	NA	0	0
15	copernicus	NA	NA	NA	NA	NA	NA	NA	0
16	pmc	NA	NA	NA	NA	NA	NA	0	0
17	researchblogging	NA	NA	NA	NA	NA	NA	0	0
18	facebook	NA	NA	0	NA	0	0	NA	0
19	mendeley	NA	NA	NA	TRUE	NA	NA	NA	0

[[3]]

	.id	pdf	html	shares	groups	comments	likes	citations	total
1	wordpress	NA	NA	NA	NA	NA	NA	0	0
2	crossref	NA	NA	NA	NA	NA	NA	0	0
3	mendeley	NA	NA	NA	TRUE	NA	NA	NA	0
4	facebook	NA	NA	0	NA	0	0	NA	0
5	researchblogging	NA	NA	NA	NA	NA	NA	0	0
6	pmc	NA	NA	NA	NA	NA	NA	0	0
7	copernicus	NA	NA	NA	NA	NA	NA	NA	0
8	twitter_search	NA	NA	NA	NA	NA	NA	0	0
9	citeulike	NA	NA	0	NA	NA	NA	NA	0
10	pubmed	NA	NA	NA	NA	NA	NA	0	0
11	reddit	NA	NA	NA	NA	NA	NA	0	0
12	wikipedia	NA	NA	NA	NA	NA	NA	2	2
13	doi_resolution	NA	NA	NA	NA	NA	NA	0	0
14	datacite	NA	NA	NA	NA	NA	NA	0	0
15	pmceurope	NA	NA	NA	NA	NA	NA	0	0
16	pmceuropedata	NA	NA	NA	NA	NA	NA	0	0
17	scienceseeker	NA	NA	NA	NA	NA	NA	0	0
18	nature	NA	NA	NA	NA	NA	NA	0	0
19	openedition	NA	NA	NA	NA	NA	NA	0	0