

Twitter for Scientific Communication

How can Citations/References be Identified and Measured?

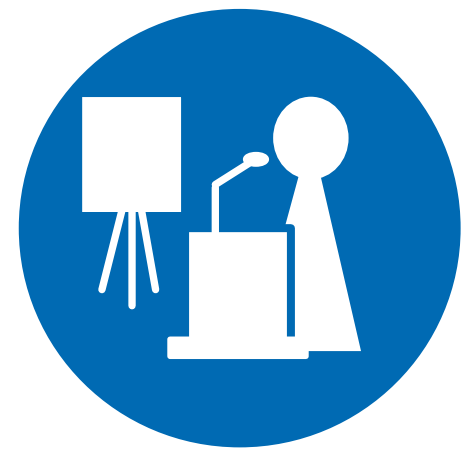
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3 Datasets



Conference tweets:
#www2010

- 903 unique users
- 3,358 tweets
- 13.04.-14.05.2010



Conference tweets:
#mla09

- 369 unique users
- 1,929 tweets
- 15.12.'09-14.01.'10



scientwists:
Tweets by selected scientific users

- 589 selected users
- 410,609 tweets
- 07.01.-31.08.2010



Internal Citations

- User-related citations
- Retweets (RTs) within Twitter
- Reference to other users / quotation of tweets
- Users cite and are cited



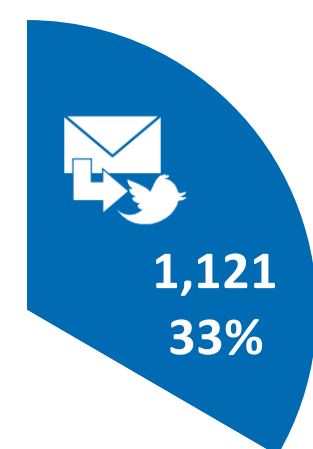
External Citations

- Resource-related citations
- Links (URLs) to external resources
- References to various types of Web content
- Users cite, websites are cited

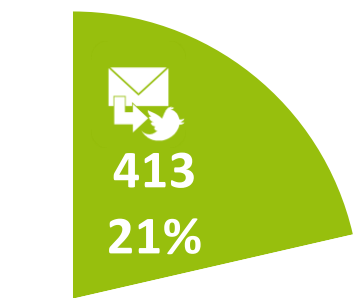
How do Scientists Cite on Twitter?

Internal citations: Percentage of retweets

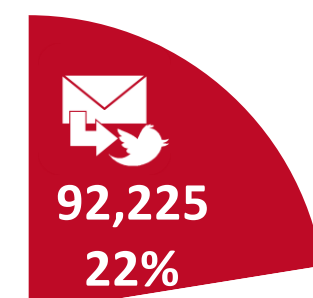
#www2010



#mla09

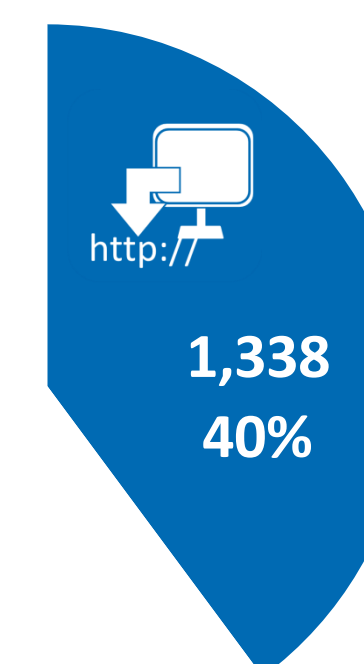


scientwists

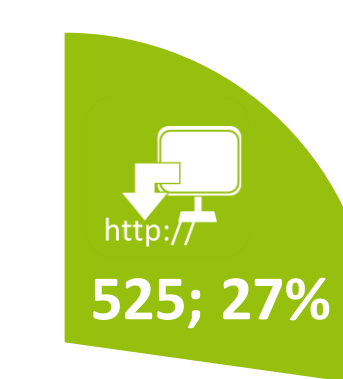


External citations: Percentage of tweets that include at least one URL

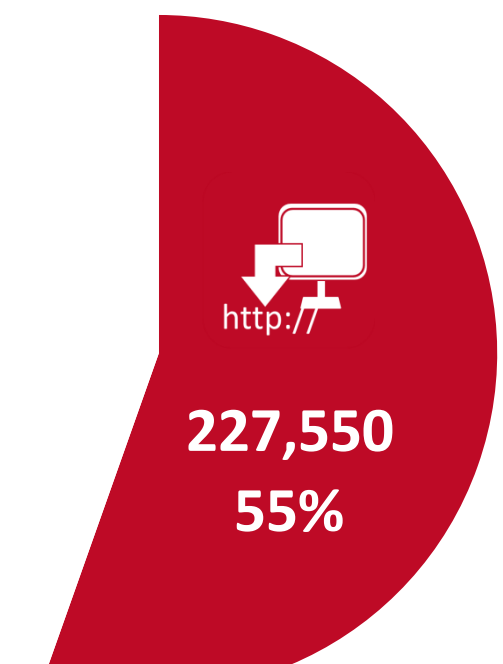
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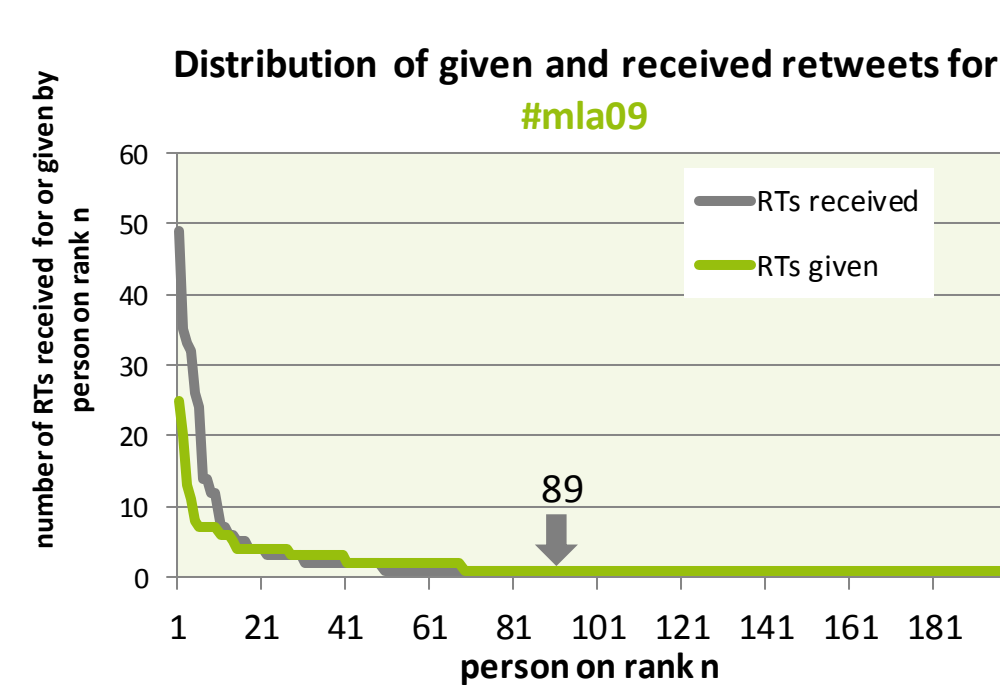
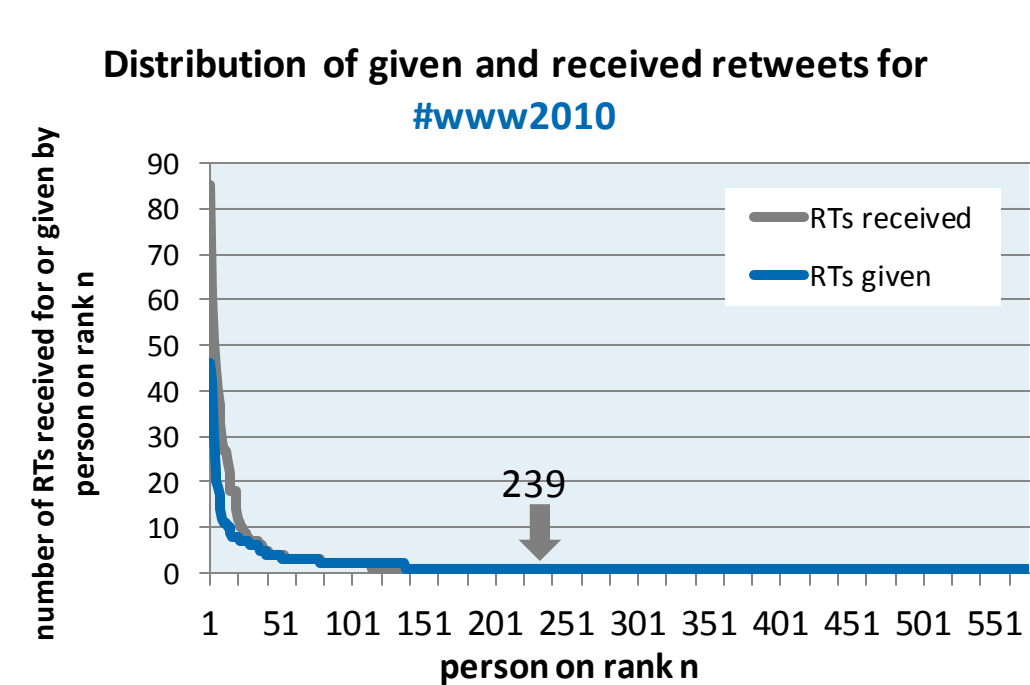
#mla09



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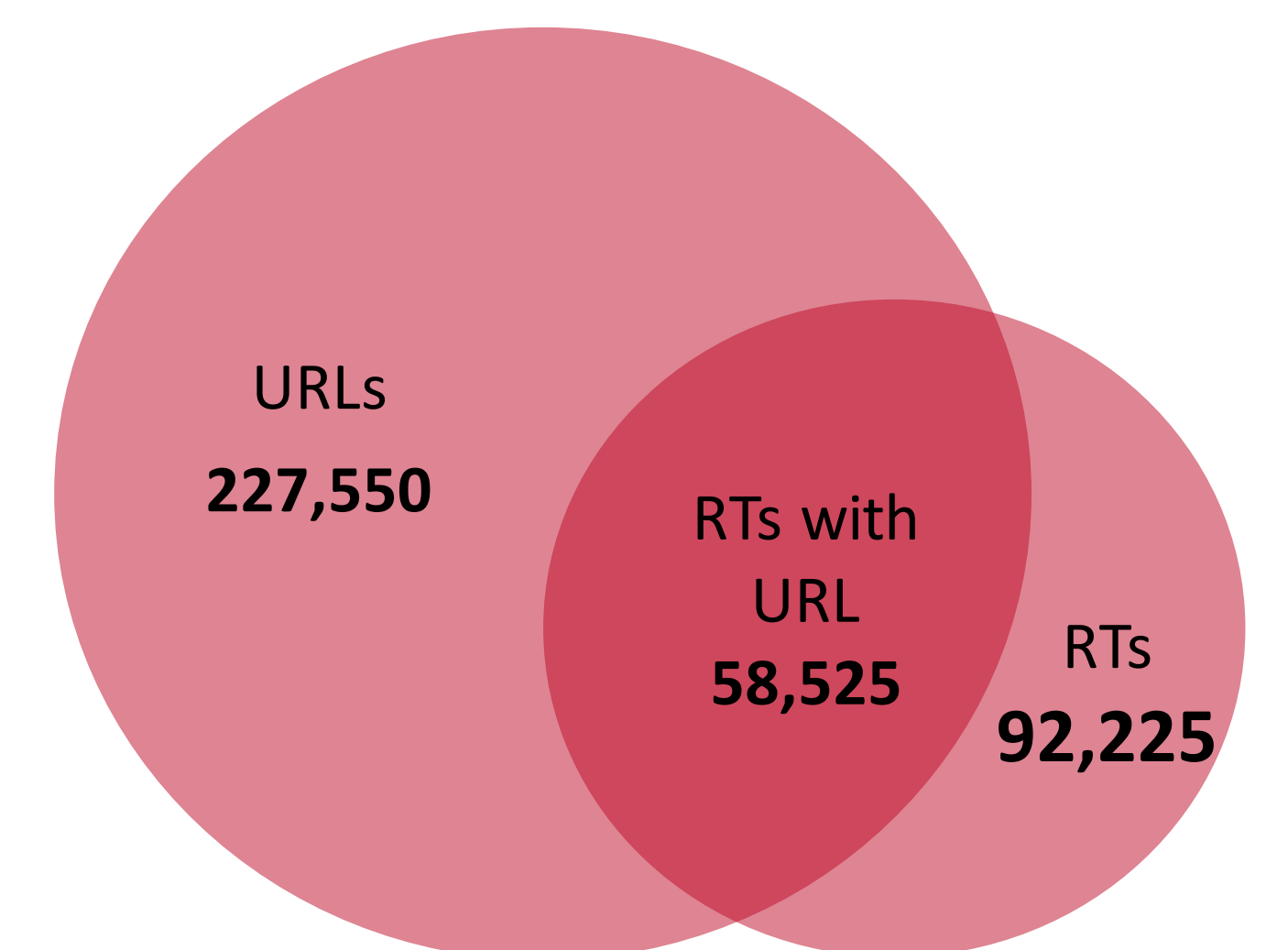
Distribution of internal citations



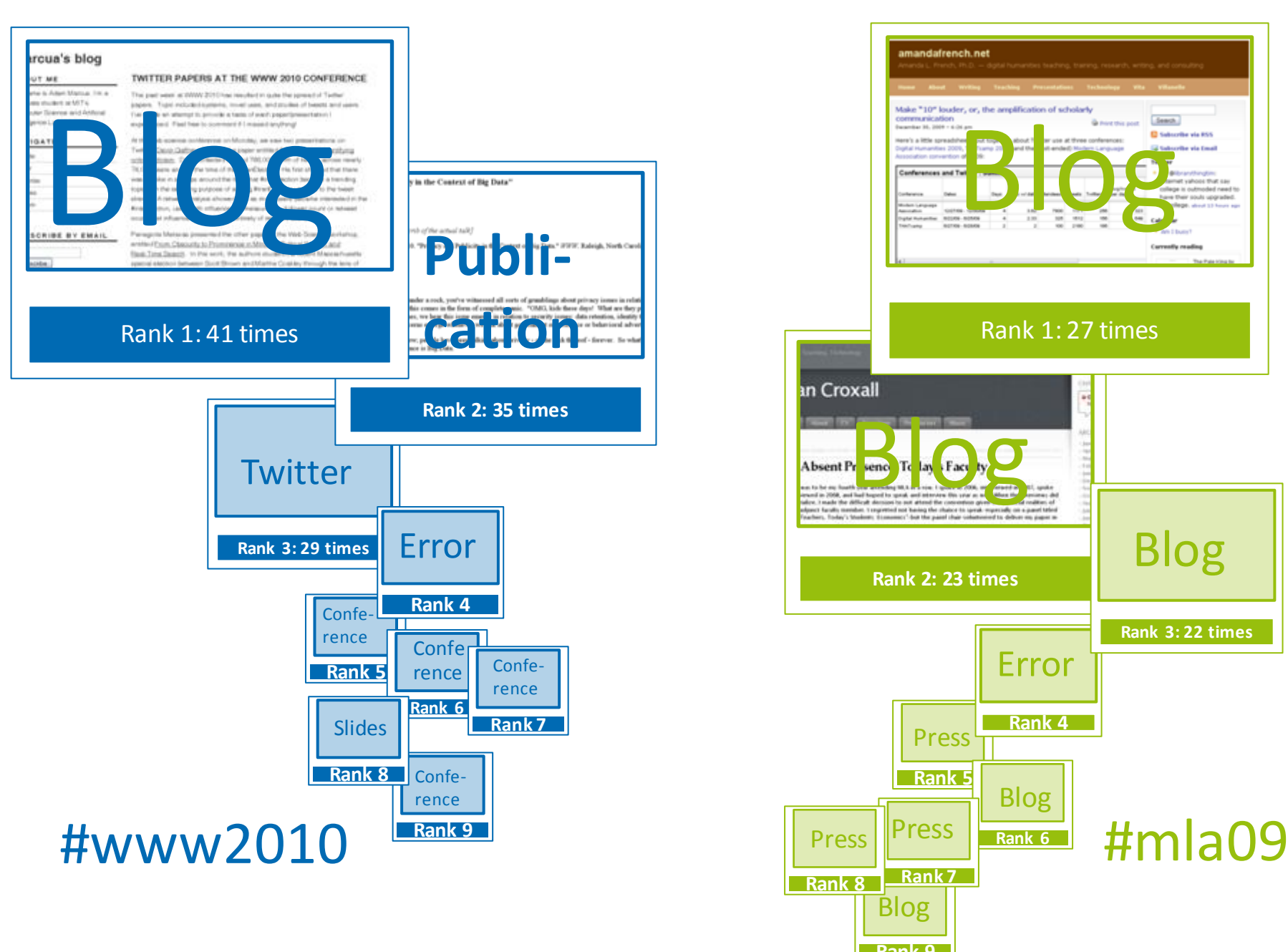
Different ways of counting external citations

	#www2010	#mla09	scientwists
Number (and %) of tweets including at least one URL	1,338 (39.85%)	525 (27.22%)	227,550 (55.42%)
Number of total URLs	1,460	551	234,731
Number of unique URLs	574	199	Approx. 180.000*

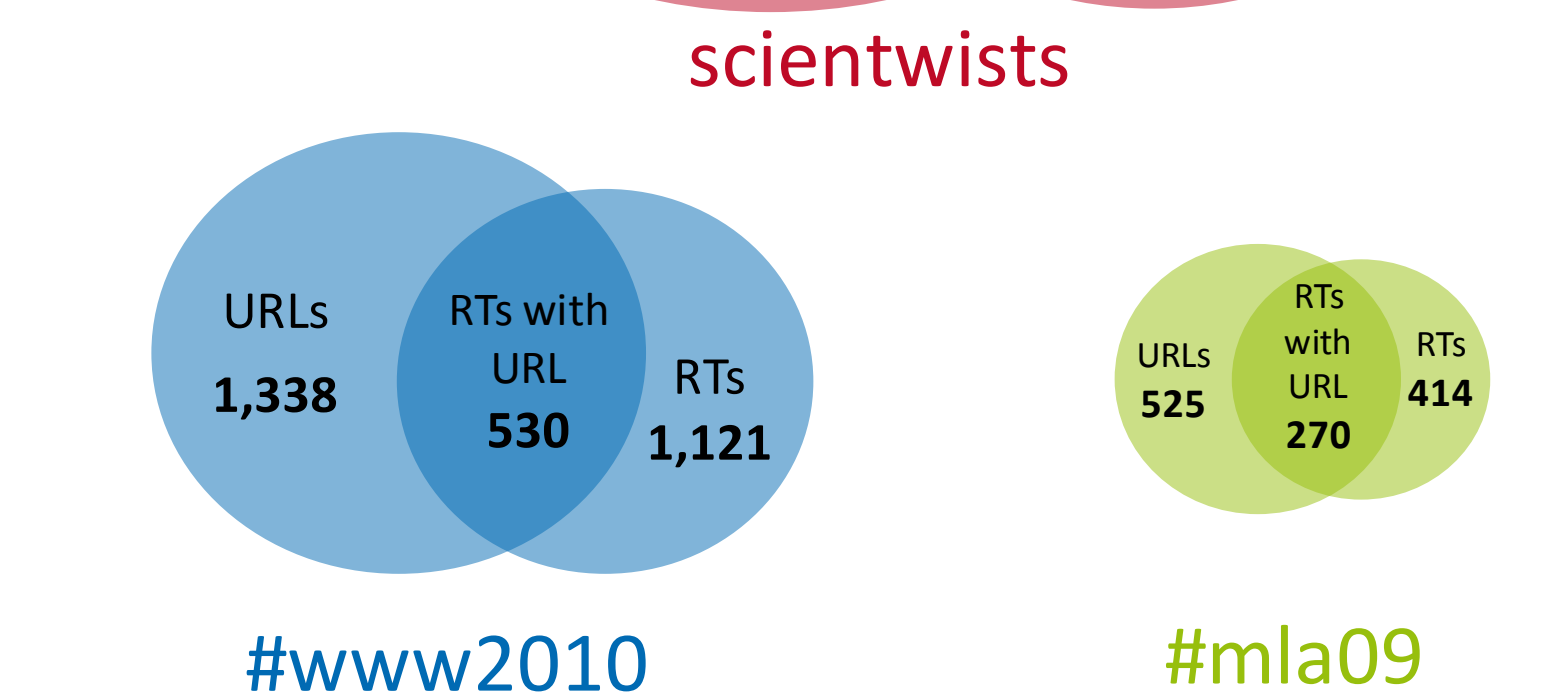
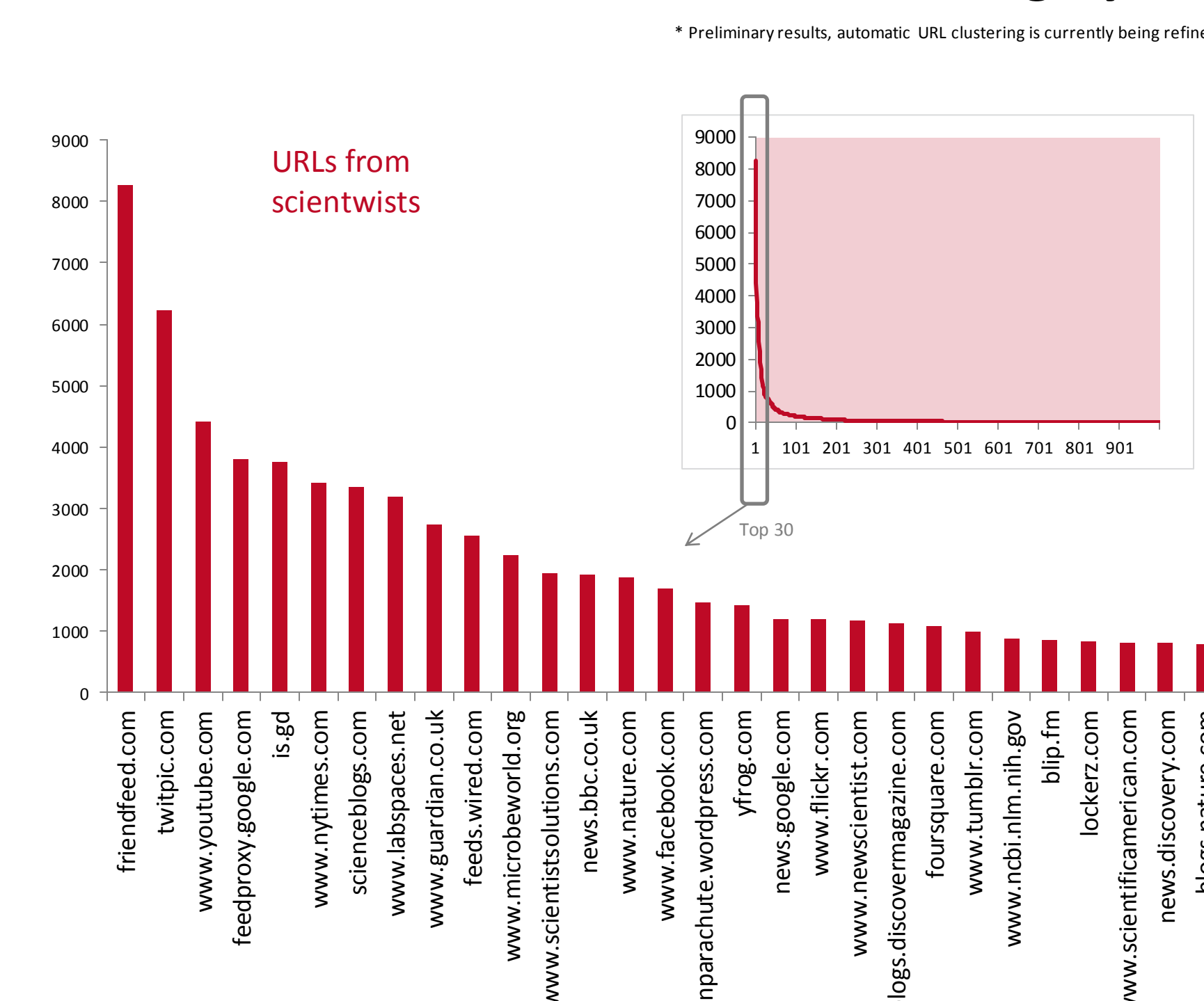
Overlap of external and internal citations



External citations: What is highly cited?



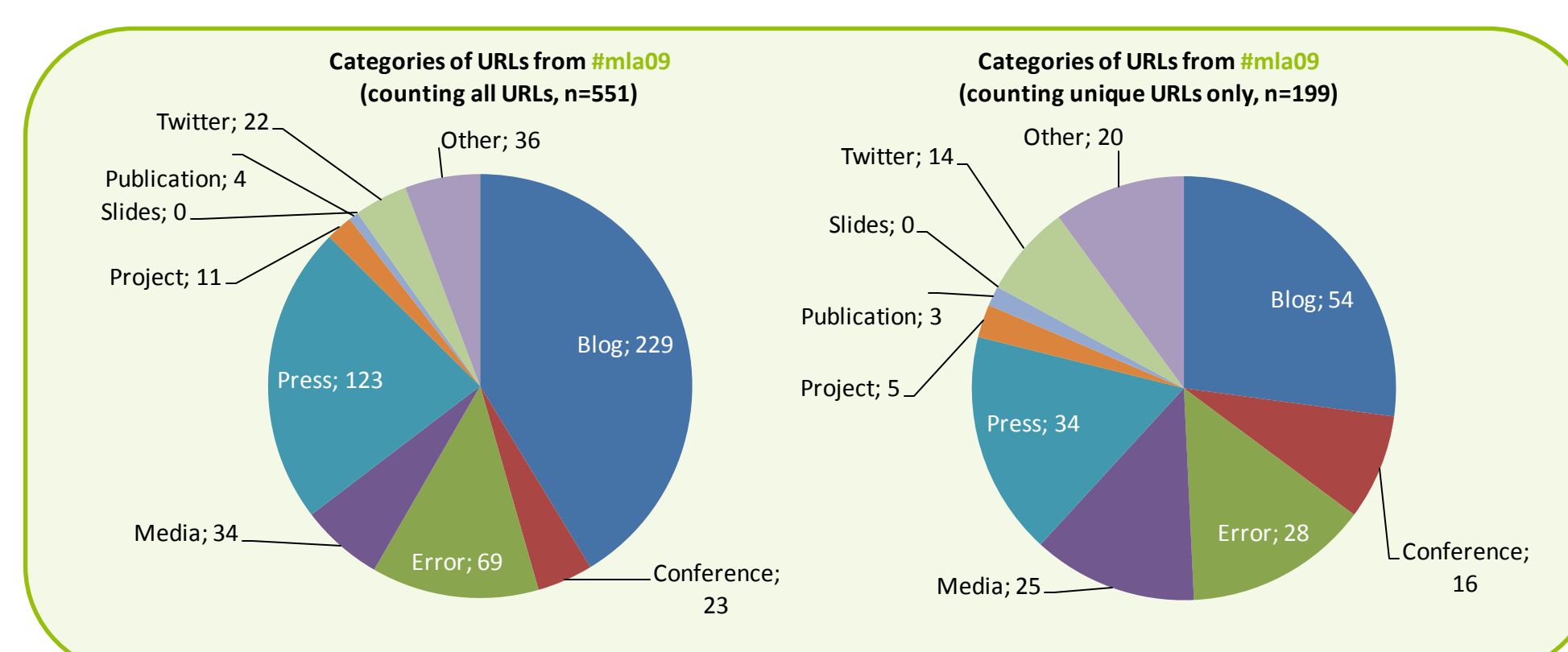
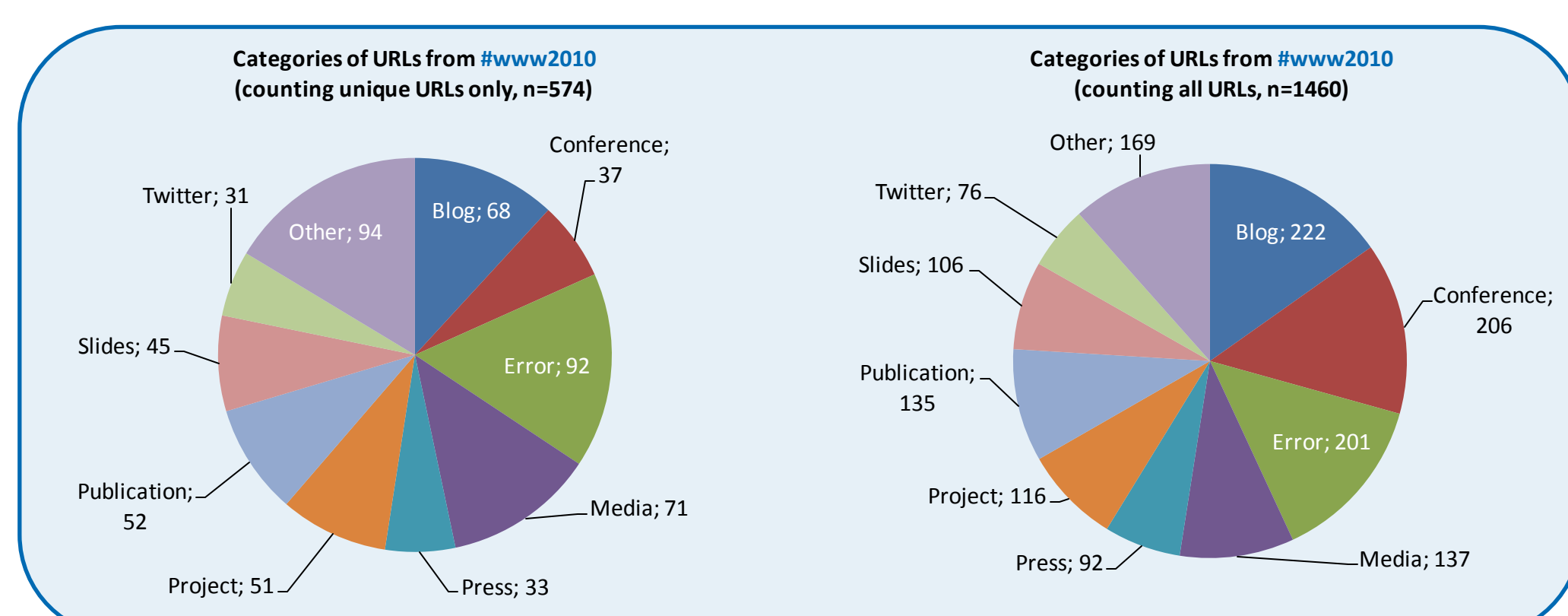
External citations: Which websites are highly cited?*



Internal citations: Highly cited tweets from #mla09

URL No.	Tweet text and ID	From User	RTs
URL No. 1	Hey, guys, I've blogged about "the amplification of scholarly communication": Twitter, #MLA09, @brianxroxal, & such: http://bit.ly/7SRgqZ (ID: 7221520139)	amandafrench	18
URL No. 5	New at ProfHacker: "Academics and Social Media: #mla09 and Twitter," by @GeorgeOnline (and a bunch of you): http://wp.me/PAGUw-19K (ID: 7566711357)	profhacker	17
URL No. 3	"Monopolies of Invention:" text of my #MLA09 talk on labor & IP issues in humanities collaboration: http://is.gd/5Gckz (ID: 7185970970)	nowvskie	16

External citations: What types of websites are cited?



External citations: Frequency of URLs in conference datasets

