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Who's Googling What? What internet searches reveal about hurricane information seeking.

Abstract

Google trends and Google Insights are two freely available, searchable databases that track the normalized interest in specific search queries. Using these databases, this poster examines search patterns related to hurricanes. Searching the word "hurricane" using Google Trends shows a predictable seasonal pattern. Yearly spikes in hurricane searches appear to be related to the severity of the storms making landfall. Google Hot Trends can also be used to track the most searched topics on a particular day. Google Insights can be used to compare interest in certain topics among geographic areas. During September and August, 2008, which included the landfalls of Hurricanes Gustav and Ike, search interest for the term "hurricane" was higher for Louisiana than Texas for nearly the whole two-month period, including the days preceding Ike's landfall. The difference in search interest for "Hurricane Ike" between Texas and Louisiana appeared to be related to changes in track forecast.

Google Hot Trends

Figure 4. Search Volume Index Tropical Storm Gustav

Public interest in Hurricane Gustav was captured by Google Hot Trends, identifying "Tropical Storm Gustav" as the 7th most popular search term for the day it became a named storm. The following day, top searches were related to the track of Hurricane Gustav.

labs Tir	Use commas to compare multiple search terms	ends	
Trends (USA)			
25, 2008 - change date	hurricane gustav		
ead or die	Hotness: <mark>On Fire</mark>	Search Volume index	Google Trends
<u>lolly parton dead</u> owes leal or no deal	Related searches: hurricane gustavo, hurricane gustav 2008, tropical storm gustav, storm gustav, gustav Peak: 2PM (PDT)		\sim
<u>bc 33/40</u> urricane gustav			
nichelle obama pregn Inc schedule		0	рм 6РМ

Date25-AugTropical S26-AugProjected Path of hu Hurricane 27-AugHurricane28-AugTropical St1-SepPlaquemine Cocodrie Cocodrie River gau **Tropical S** Industria 6-Sep Hurricane 8-Sep Hurricane 11-Sep Houston I 77058 Gas prices Houston tr Houston e City of Hou 77062 12-Sep Bolivar Per Gas prices Galveston Galveston Galveston Hurricane Surfside E Galvestor 13-Sep Hurricane 14-Sep Centerpoi * A website. ** Not clear if das searches were made by Hurricane evacuees

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Figure 5. Search Volume Index Hurricane Gustav

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Hottorm Donkin			
Hot term	Ranking		
torm Gustav	7		
path of hurricane Gustav	9		
rricane Gustav	15		
Gustav tracking	16		
Gustav track	21		
torm Hannah	30		
es Parish	2		
A	5		
ouisiana	10		
je	22		
torm Ike	31		
canal New Orleans LA	38		
Ike computer model	18		
Ike track	39		
ide from the wind*	5		
	8		
**	20		
affic	22		
vacuation zones	34		
uston	36		
	37		
ninsula	11		
by zip code**	15		
web cameras	20		
webcams	26		
, ТХ	27		
Ike pictures	28		
each, TX	29		
webcam	36		
Ike damage	30		
nt Energy	18		

References



Figure 6. Search index for "hurricane"

Compare the peaks on the search index graph (Figure 6) with the series of hurricane forecast graphics (Figures 7-9). The search index peaks can be visually linked with the 5-day track on the forecast graphic.





	Locations	Filter	
Search terms	United States Louisiana All metros	Web Search 👻	
Locations	United States Texas All metros	hurricane ike	
Time Ranges	+ Add location	Aug • 2008 • - Sep • 2008 • Reset	
		All Categories	Search
or hurricane ike, Categories: <u>Loca</u>	Aug-Sep 2008 II, Entertainment, Lifestyles, Reference, Society, News	& Current Events	11
nterest over tir	16	News headline	es: <u>Show</u> Hide
		Learn what t	hese numbers mean
			100
			1 1940 (01 0)
			80
		AA	80
			60
			80 60 40
			80 60 40 20
			80 60 40 20
- u 3	Aug 10 Aug 17 Aug 24 Aug 3	31 Sep 7 Sep 14 Sep 21	80 60 40 20 5ep 28

Google Insights







Figure 7. 5-day forecast 1-4 September



Figure 9. 5-day forecast 9-12 September



Figure 11. Google Insights allows several places or terms be compared together.