

# Effective Visualization of Dynamic Twitter Feeds

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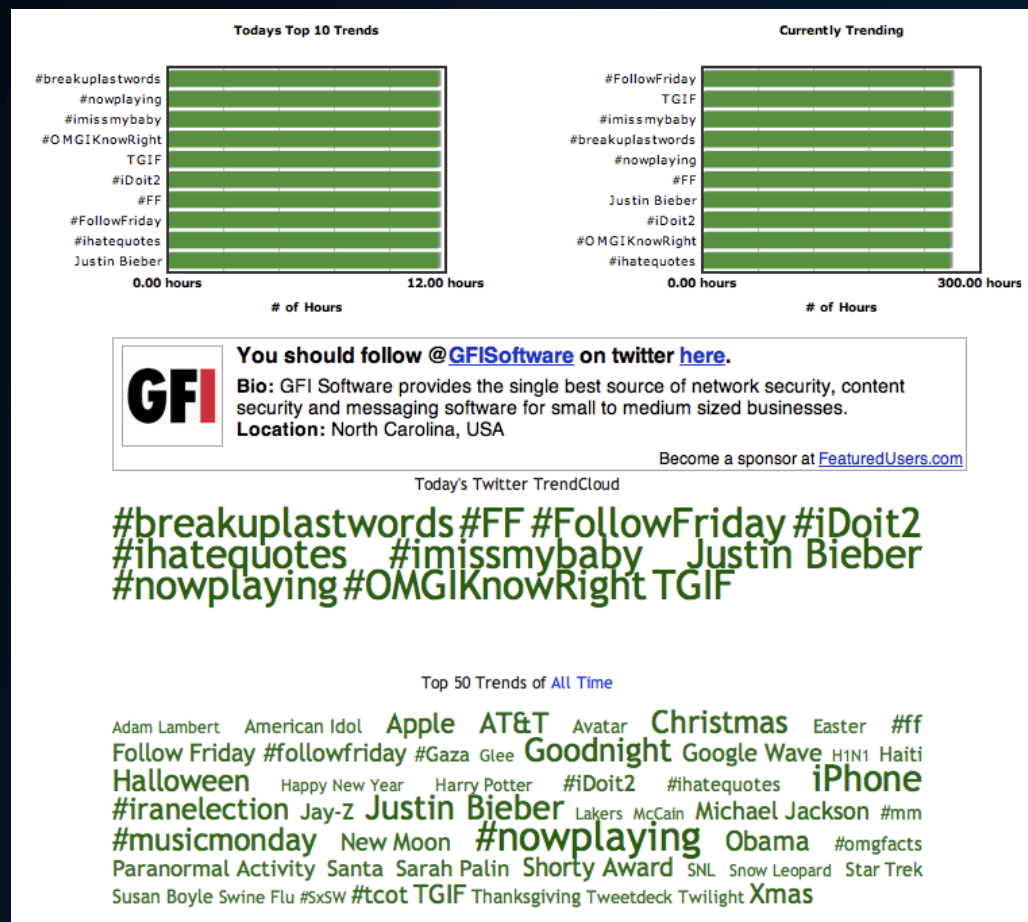
# Information Domain

Focused on Twitter Trending Topics

- System allows for users to monitor most popular topics
- Allowed us to pull in quickly changing data
- Has properties that can be extrapolated to other quickly changing domains.

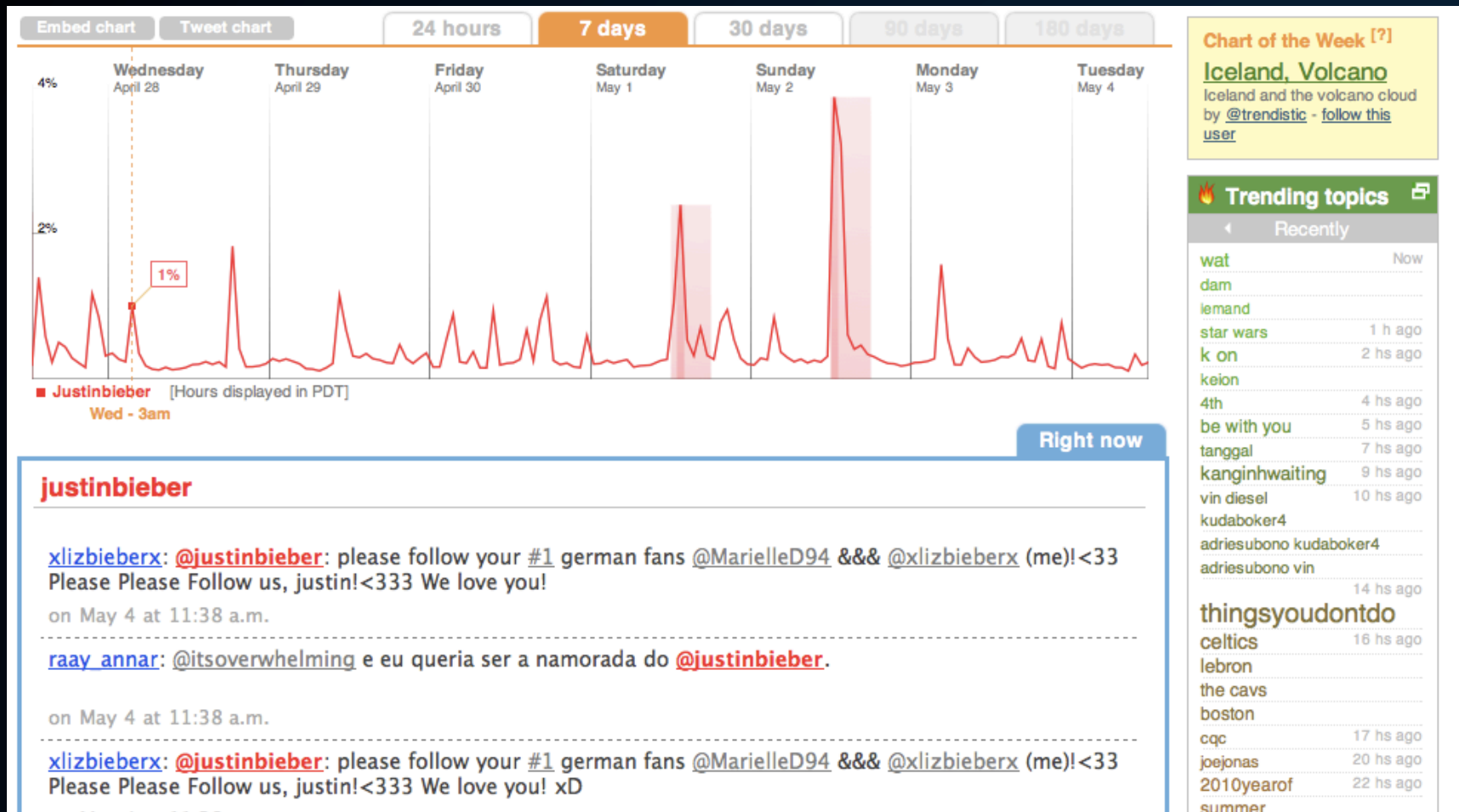
# Existing Systems

<http://tweetstats.com/trends>



# Existing Systems

<http://trendistic.com/>



# System Design

-Data pulled using PHP. Windowing system implemented entirely in Javascript

- Bell and Feiner: Overlap minimization
- Tiling/treemap approach (area)
- Avoid aspect ratio distortion
- Renormalized and recomputed each time new box arrives, importance changes, or window size/orientation is modified

$$\|Importance\|_f = \frac{Importance_f}{\sum Importance}$$

$$|columns| = \lceil \sqrt{|boxes|} \rceil$$

$$width_{col} = \frac{\sum Importance_{col}}{\sum Importance} * width_{scr}$$

$$height_{feed} = \frac{importance_f}{\sum Importance_{col}} * height_{col}$$

# Advantages of System

Does it help manage multiple streams of data?

- Provides a quick overview of many trending topics
- Provides a quick look into individual tweets
- Alternative to Word Cloud system (if data domain permits)
- Utilizes the length and size of a box to indicate change of a stream (easily recognized and understood)

# Disadvantages of System

- Movement of windows makes it difficult at times to read individual tweets
- Occludes less popular trending topics
- Does not provide a trending topic history, only an instant peek
- Large Data-Ink ratio

# Something we kind of found out....

