

Tweeting differently: A case study comparing @MyPlate and @FoodNetwork



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Background

Uptake of the USDA dietary guidelines could be increased

- Americans over consume fat and carbohydrates and under consume vegetables¹

Social media facilitates recipe discovery

- Recent data show 19% of all online adults use Twitter with higher rates among 18-29 year olds (35%)²
- In late 2011, 49% of adult Internet users reported learning about food from social networking websites/apps and 21% reported seeking out recipes on social media³

Social media as a health promotion tool

- Scientists are called to leverage social media to advance health-related behavior change⁴
- While health experts (e.g., government scientists) are likely to promote evidence-based information, they are apprehensive about social media and online communities^{5, 6}
- Research is needed to better understand how science-based and non-science-based organizations that seek to influence food consumption differ in their use of Twitter

Research Question

- What are the similarities and differences between @MyPlate (a science-based group) and @FoodNetwork (a non-science-based group) on:

- Account use** (e.g., activity, engagement)
- Reach** (e.g., follower demographics)
- Content** (e.g., structure and topic of tweets)
- Nutrition information** (e.g., food groups)

References

- Austin, Ogden, & Hill (2011) *AJCN*, 93
- Pew Internet (2014) *Social networking fact sheet*
- Hartman Group & Publicis Consultants (2012) *Clicks and cravings report*
- Pagoto & Bennett (2013) *TBM*, 3
- Lovejoy, Waters, & Saxton (2012) *Public Relations Review*, 38
- Rutsaert, Pieniak, Regan et al. (2014) *Food Policy*, 46
- Yin (2009) *Case study research: Design and methods*

Method

Interpretive case study

- Data collection and analyses used an iterative process: Plan, Design, Prepare, Collect, Analyze, Share⁷

Measures & data analysis tools

- Data gathered and analyzed in April 2014

Account use

- Total # of tweets, # of accounts following: [Twitter profile](#)
- Average # of tweets/day, average # of replies and retweets per 100 tweets: [Twtrland \(based on ≥1.5k tweets\)](#)

Reach

- # of followers, # of shared followers: [Twiangulate](#)
- Follower demographics: [Twtrland](#)

Content

- Tweet structure: [Twtrland](#)
- Emergent coding of tweet topic in the Top 10 retweets from each account: [MyTopTweet](#); [Nvivo10](#)

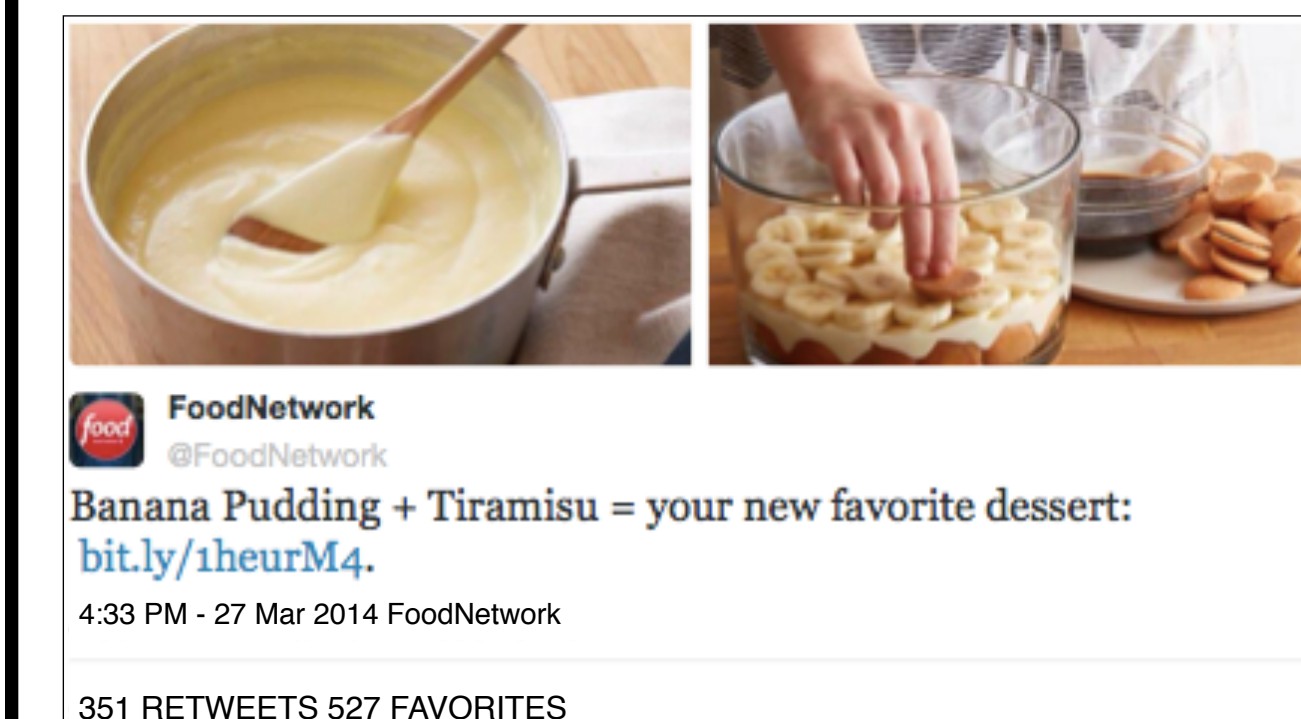
Nutrition information

- Emergent coding of tweet topic, food groups, and health behaviors in the Top 10 retweets from each account: [MyTopTweet](#); [Nvivo10](#)

Most retweeted @MyPlate tweet



Most retweeted @FoodNetwork tweet



Results

Account use

- @MyPlate followed fewer accounts and tweeted less often than @FoodNetwork
- Followers of both accounts were highly engaged (retweets & replies)

Reach

- @MyPlate had fewer total followers than @FoodNetwork
- The two accounts shared only 197 followers
- Followers of both accounts were primarily female (>70%) and 18-34 years of age (>75%)
- @MyPlate followers had less influence than @FoodNetwork followers: 66% "Casual Users" vs 65% "Power Users"

Content

- @MyPlate tweeted more nutrition education and behavioral directives while @FoodNetwork tweeted more photos, mentions, and recipes

Nutrition information

- @MyPlate promoted healthy foods and behaviors but no recipes

@MyPlate tweet structure

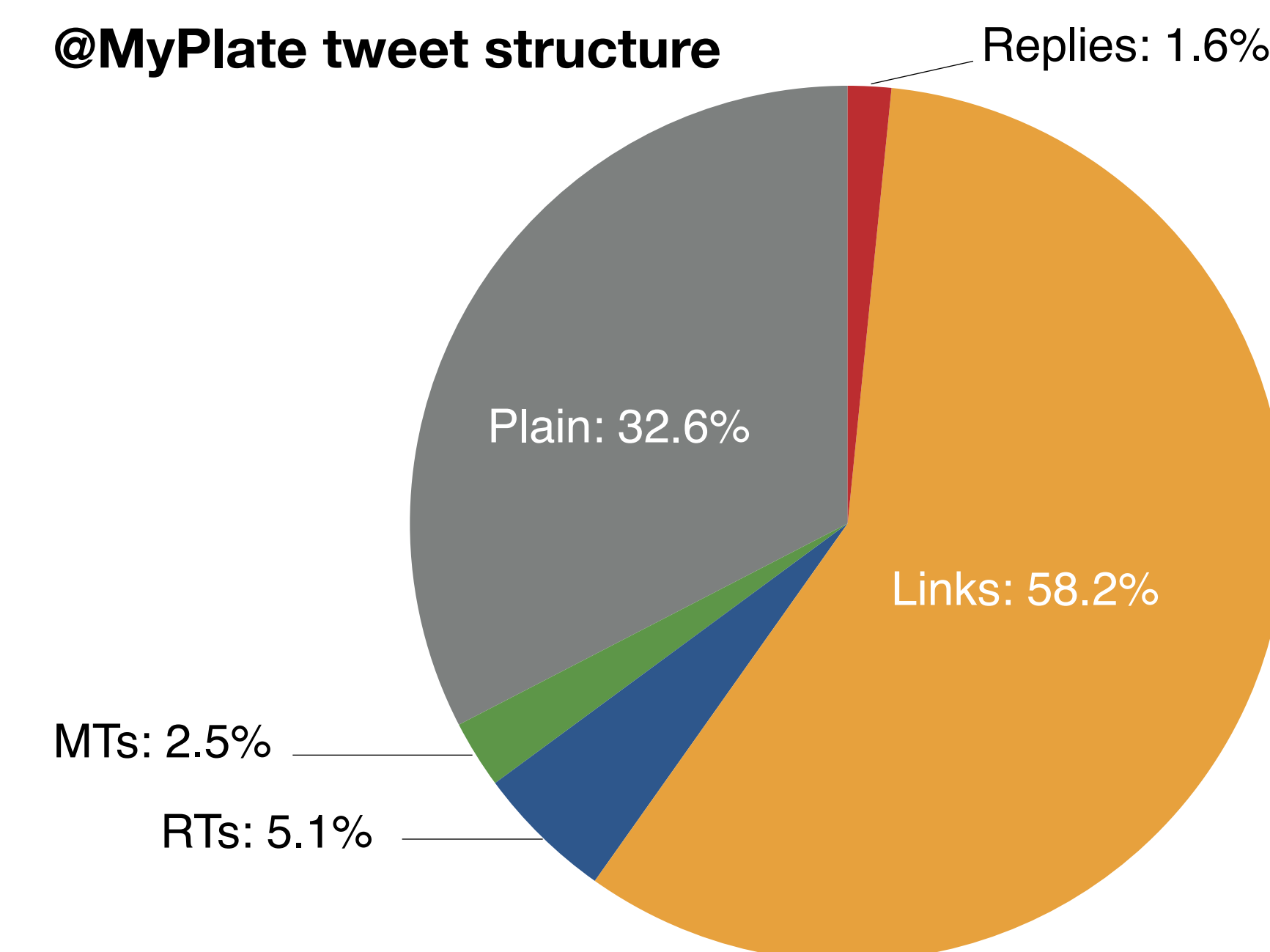


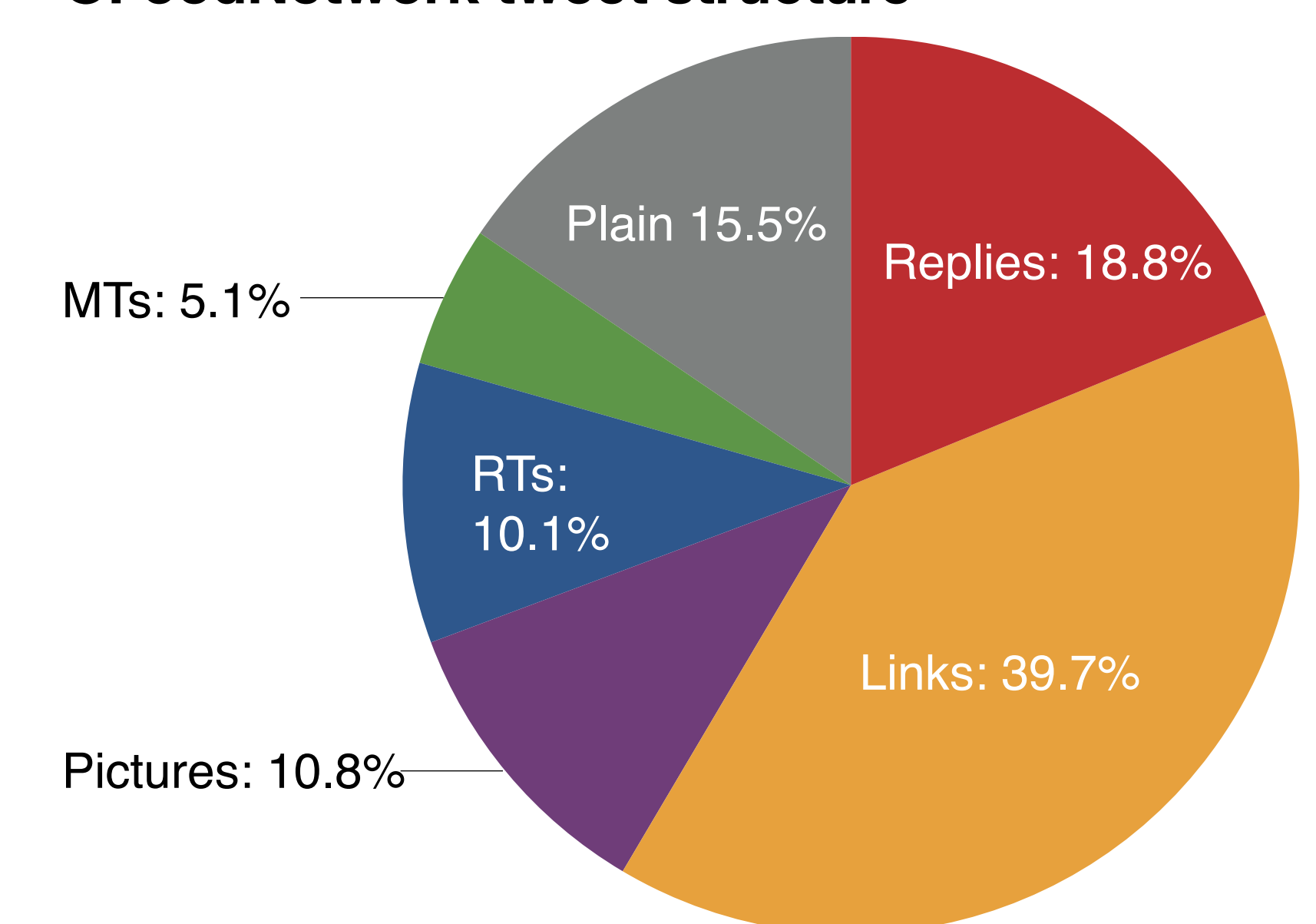
Table 1. Account use results

	@MyPlate	@FoodNetwork
Followers	60,787	2,160,111
Accounts following	270	~23,400
Tweets per day	1.7	10
Retweets per 100 tweets	1,379	2,684
Replies per 100 tweets	163	2,167

Table 2. Top 10 retweets topic and food group results

	@MyPlate	@FoodNetwork
Recipe	0%	60%
Nutrition fact	60%	0%
Dessert	0%	50%
Water	20%	0%
Whole grain	20%	0%

@FoodNetwork tweet structure



Conclusions

- @MyPlate and @Foodnetwork both had large audiences that replied to and promoted content within their social networks
- @FoodNetwork was more responsive to their followers and had a more diverse tweet structure
- @Myplate used Twitter as a one-way channel which may limit their potential to attract new followers
- The small number of over-lapping followers may indicate an opportunity for @MyPlate to expand their reach if they were to use some of the same tweeting strategies as @FoodNetwork (e.g., increase tweets containing photos and link to recipes)

