

**How Social Media Moves New York:  
Twitter Use by Transportation Providers  
in the New York Region**

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## Introduction

Social media networks are valuable tools for the public outreach needs of transportation providers: they are free, instantaneous, reach large numbers of people simultaneously, and allow for sideline discussions. When transportation providers are trying to notify large numbers of passengers about delays, drivers about construction work, or bus riders about re-routes, they can “blast” messages through social media channels to reach their intended audience immediately (the audience accesses these networks far more frequently than the websites of their local transportation agencies<sup>1</sup>). The goals of social media in transportation are to inform (alert riders of a situation), motivate (to opt for an alternate route), and engage (amplify the message to their friends and neighbors). Ideally, these actions would occur within minutes of an incident.

This report analyzes the use of social media tools by the New York region’s major transportation providers. It is focused on the effectiveness of their Twitter feeds, which were chosen for their immediacy and simplicity in messaging, and provided a common denominator for comparison between the various transportation providers considered, both public and private. Based on this analysis, recommendations are outlined for improving social media outreach. A subsequent report will propose policies and recommendations for enhanced information and engagement with users.

## Key Findings

- **Private sector transportation providers reach far more customers, proportionately, than those in the public sector:** For example, for every 1,000 subway passengers NYCT receives a single Facebook “Like,” while for every 1 JetBlue passenger, there are 7.58 Likes. Similarly, while PATH has approximately 1 Twitter follow for every 20 riders, American Airlines has more than three times that ratio. These numbers are important because they

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<sup>1</sup> “How People Learn About Their Local Community,” Pew Internet and American Life, Sept. 26, 2011. <http://pewresearch.org/docs/?DocID=140>

show audience engagement and amplification of the message, which help travelers to move more efficiently and safely.

- **Few transportation providers maximized Twitter’s potential** with hashtags, dialogues, and dynamic content, which adds substance to the conversation and improves customer feedback. Furthermore, **most transportation agencies over-marketed and under-informed**, resulting in limited value of their social media presence.
- **A focus on non-English speakers is lacking:** Only two public transportation providers tweeted in non-English (6 tweets total), even though nearly half of all New Yorkers speak a language other than English at home. Clearly transportation providers should pay more attention to the non-English speaking population.
- **Public transportation providers lagged far behind private providers in terms of accountability;** specifically, the airlines apologized substantially more than public transportation providers for delays and cancellations, while the public transportation providers accepted ‘thanks’ at a greater rate than they issued apologies (on average 17.7 “thanks” versus 12.6 “sorry”).

## Social Media Networks and Their Use in New York City

New Yorkers are at the forefront of social media communications, using a variety of channels in large numbers and with great frequency<sup>2</sup>. They are extremely reachable through social media, including Twitter, Facebook, YouTube, FourSquare, Flickr and Tumblr. With smartphones currently comprising 47 percent of all subscribed phones in the United States<sup>3</sup>, it is increasingly easy to reach New Yorkers through a variety of channels.

### Facebook

Millions of New Yorkers appear on Facebook. As of September 21, 2012, the number of Facebook accounts self-reported as based in New York City is 5, 597,420. The by-borough breakdown is below; note that accounts can be owned by individuals or organizations, so the numbers may not necessarily indicate residential usage (as seen in Manhattan, where figures exceed population counts).

- 3,487,280 reporting as “New York, NY”
- 1,075,040 in Brooklyn
- 619,960 in Bronx
- 252,900 in Queens
- 162,240 in Staten Island<sup>4</sup>

With more than half of New York City’s population using Facebook, and growing by the day, it is reasonable to assume that the technology will reach many New Yorkers needing transportation information. Although Facebook may not be the best source for urgent information, due to its constantly streaming feed, the network is a great tool for engaging customers and posting dynamic content.

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<sup>2</sup> “NYC’s top social-networking sites,” Crain’s New York Business, June 2012.

<http://mycrains.craainsnewyork.com/stats-and-the-city/2012/social-media/nycs-top-social-networking-sites>

<sup>3</sup> Rainie, Lee. “Smartphone Ownership Update: September 2012,” Pew Internet & American Life. September 11, 2012. <http://pewinternet.org/Reports/2012/Smartphone-Update-Sept-2012/Findings.aspx>

<sup>4</sup> Numbers generated from Facebook target advertising software.

<https://www.facebook.com/help/?page=175624025825871>

## Twitter

New York is a “tweeting town;” according to Twitter founder Jack Dorsey, “New York City has more Twitter users than any other city in the world and the second most Twitter developers.”<sup>5</sup>

Not only are 2,618,000 New York-based accounts socializing via the network<sup>6</sup>, but local users are also creating a large number of software applications for interaction with Twitter. Even further, New Yorkers are extremely active on

2,618,000  
 New York City-based  
 Twitter accounts

Twitter: in 2009, while the region’s users owned only 1.44% of accounts, they created 2.37% of all tweets; they are collaborating in more complex ways than in other locations.

Finally, New Yorkers tweet from all parts of the metropolitan region. As shown in the display of tweets below by data analyst Eric Fisher, the New York City population using Twitter is widespread across the region, and although concentrated in Manhattan (like the workforce population), users are not limited to one borough.<sup>7</sup> In the image below, blue dots represent tweets, red dots represent photos posted to Flickr, and white dots indicate a combination of the two. Note the vastness of blue and white, indicating the breadth of the New York regional audience on Twitter.

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<sup>5</sup> Myers, Courtney Boyd, “New York City has more Twitter users than any other city in the world,” The Next Web, October 6, 2011. <http://thenextweb.com/twitter/2011/10/06/new-york-city-has-more-twitter-users-than-any-other-city-in-the-world/>

<sup>6</sup> “NYC’s top social-networking sites”

<sup>7</sup> Fischer, Eric. “See something or say something: New York,” July 11, 2011. <http://www.flickr.com/photos/walkingsf/5926359544/in/set-72157627140310742>

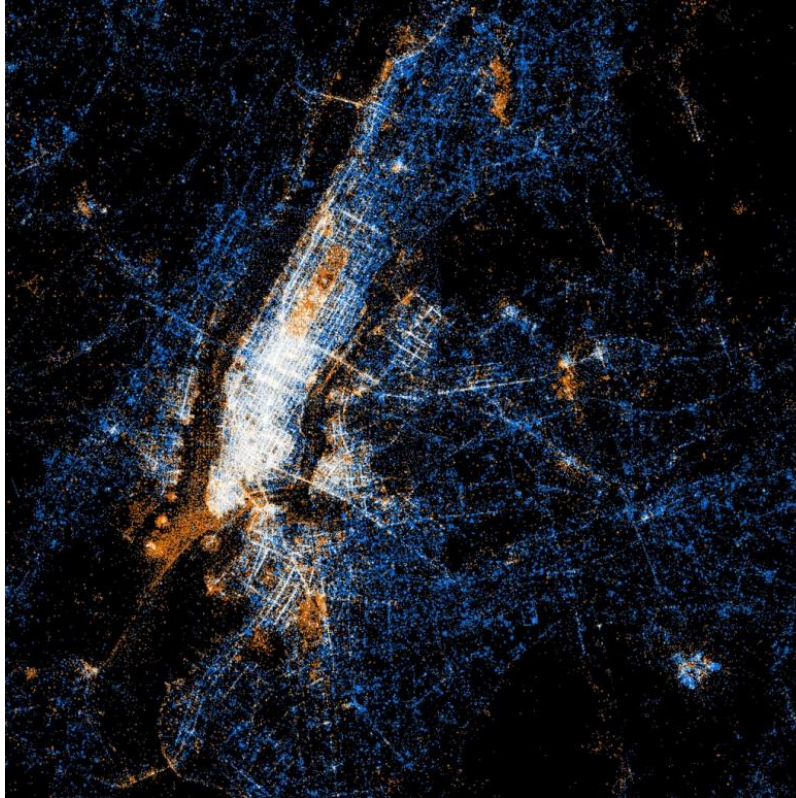


Figure 1 Geo-located Tweets in New York City, by Eric Fischer

### YouTube, FourSquare and Flickr

Although localized account information is not available for YouTube, FourSquare and Flickr, these sites' wide reach is well-documented. It is estimated that more than 30% of all internet users visit YouTube at least once per day (or view its content embedded on other websites), with 20% of the site's traffic coming from within the United States.<sup>8</sup> It is probable that many, if not most, New Yorkers are able to view content on and from YouTube.

The location-based check-in software, with 15 million users worldwide,<sup>9</sup> is headquartered in New York. Its base audience could greatly benefit from location-based information services, such as automated service information at transit station entrances.

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<sup>8</sup> Alexa.com: <http://www.alexa.com/siteinfo/youtube.com#>

<sup>9</sup> About FourSquare: <https://foursquare.com/about/>

Flickr is heavily used in New York City (a recent search for “New York” resulted in more than 13 million photos)<sup>10</sup>. It is often assumed that Flickr is used more heavily among tourists,

but according to the map at right by Eric Fisher<sup>11</sup>, the photos taken in locations other than Manhattan’s central business district were primarily taken by locals. On this map, photos marked in blue were taken by local residents, in red by tourists, and yellow are indeterminate.

In light of this distribution, it is clear that Flickr users in New York are heavily concentrated throughout Manhattan and in parts of Brooklyn and Queens, but not evenly distributed across the city. To that end, Flickr may not be the ideal social network

for sharing information with a broad audience of New Yorkers. However, some local transportation providers, including the Metropolitan Transportation Authority, have been able to illustrate important messages, like flooded tracks, with pictorial information.

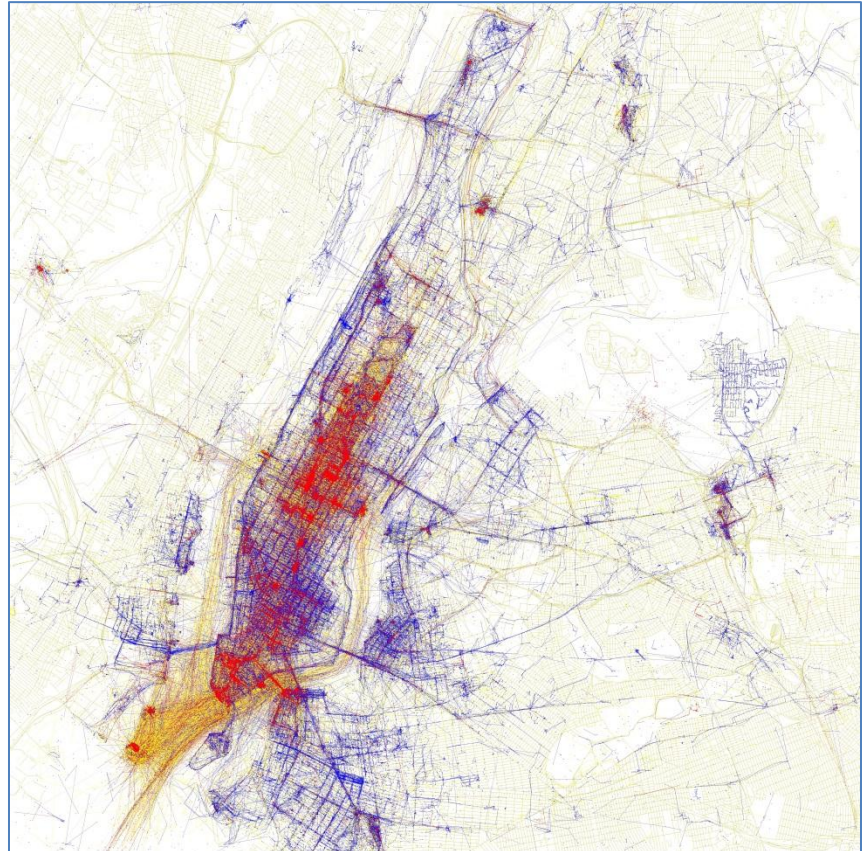


Figure 2 Geo-located Flickr photos in New York City

<sup>10</sup> Flickr search for “New York:” <http://www.flickr.com/search/?q=New%20York>

<sup>11</sup> <http://www.flickr.com/photos/walkingsf/4671594023/in/set-72157624209158632>



## Blogging Platforms

Numerous blog platforms provide potential space for non-immediate, long-form discussions about events, policies and other topics.

Tumblr, an increasingly popular blogging platform, is headquartered in New York City, where it has an estimated 888,952 users.<sup>12</sup> With simple tools for posting dynamic content including text, photos and video, Tumblr may become an integral means of communication with New Yorkers going forward.

888,952  
New York City-based  
Tumblr accounts

Other blogging tools, including Posterous and Wordpress, are also free and equally useful.

In short, New Yorkers frequent all mainstream social media networks, but are most reachable, both in immediacy and numbers, on Facebook and Twitter. It is there that transportation agencies should focus when delivering both urgent and dynamic information, augmenting existing updates and direct notifications through email and text message, and posting longer-form discussions on blogs. Maximizing use of Facebook and Twitter will help transportation providers to reach the most New Yorkers through a diversity of channels.

## Presence of Transportation Providers in the New York City Region on Social Media

The chart on the following page showcases social media in use by the transportation providers in the New York City region, both public and private, both transit and car-based, and those outside of New York who are considered models for customer communications. The two airlines, American Airlines and JetBlue, were chosen both as businesses with hubs in New York and as transportation providers needing to provide 24/7 assistance.

<sup>12</sup> Quantcast Geography for Tumblr.com: <http://www.quantcast.com/tumblr.com#cities>

## Presence of Transportation Providers in the New York City Region on Social Media

Transportation Service	Avg. Weekday Passengers**	Facebook likes*	FB likes per rider	Twitter followers*	Followers per rider	Youtube uploads*	Flickr photos*	Blog since
<b>Transit</b>								
MTA Headquarters	n/a	12,522	---	24,564	---	178	2,268	---
NYC Transit	7,446,734	7,722	.001	33,595	.005	---	201	---
Metro-North Railroad	281,446	2,832	.01	6,107	.022	---	---	---
Long Island Railroad	283,415	3,453	.01	6,046	.021	42	---	---
NJ Transit	940,877	1,925	.002	11,442	.012	13	---	---
PATH	262,400	---	---	14,260	.054	---	---	---
<b>Traffic</b>								
NYC Dept. of Transportation	n/a	4,239	---	17,105	---	48	1,843	02/2011
NYC Taxi & Limousine Commission	471,200 <sup>13</sup>	846	.002	3,807	.008	---	---	---
511 NYC	n/a	1,432	---	1,035	---	8	78	---
<b>Aviation</b>								
Port Authority Airports	290,194 <sup>14</sup>	2,375	.008	7,918	.027	---	---	---
American Airlines	275,000 <sup>15</sup>	375,150	1.36	402,246	1.46	184	---	---
JetBlue	82,760 <sup>16</sup>	627,382	7.58	1,678,624	20.28	39	16,487	2009
<b>Outside NY Region</b>								
BART (San Francisco)	347,700	18,051	.052	25,062	.072	209	---	11/2008
MBTA (Boston)	496,200	950	.002	15,785	.032	9	---	---
	*recorded on 8/6/12 ** Self-reported by agencies on own websites and to American Public Transportation Association, except where otherwise noted							

<sup>13</sup> [http://www.komanoff.net/cars\\_II/Komanoff\\_Taxi\\_Analysis.pdf](http://www.komanoff.net/cars_II/Komanoff_Taxi_Analysis.pdf)

<sup>14</sup> <http://www.panynj.gov/airports/pdf-traffic/ATR2011.pdf>

<sup>15</sup> <http://www.aa.com/i18n/amrcorp/corporateInformation/facts/amr.jsp>

<sup>16</sup> <http://investor.jetblue.com/phoenix.zhtml?c=131045&p=irol-newsArticle&ID=1682059&highlight=>

As shown in the table, transportation providers in the New York region use a diversity of social media tools and networks, with Facebook and Twitter prevailing as the most popular choices. These providers are all using the social tools similarly, essentially posting more timely information to Twitter, holding announcements and brief discussions on Facebook, and using YouTube and other tools more illustration of their work. Some findings of note from this chart:

- Average weekday ridership did not correlate to number of social media outlets being used. JetBlue, for example, has fewer weekday passengers than many of the public transit providers, but uses every social media outlet considered in this study. Metro-North, on the other hand, uses only Facebook and Twitter, despite its relatively high ridership. Although ridership numbers should not dictate use of every tool (risking spreading resources too thin across many tools), it is worthwhile to note that JetBlue often wins awards for its customer service, which is likely due to its quick responsiveness on a multitude of channels.

- Facebook “Likes” and Twitter followers indicate users’ willingness to receive information and marketing posts from that organization. The columns “Facebook Likes per Rider” and “Followers per Rider” show the relationship between ridership numbers

It is essential for both public and private transportation providers to promote their brands online, as it results in a heightened ability to perpetuate their messaging among users and fans.

and fans of the organization and/or its brand (an important distinction, since fans of the organization may be regular commuters, while fans of the brand may be tourists or otherwise irregular users). The difference between public and private fans is remarkable: For every 1,000 subway passengers NYCT receives a single Facebook “Like,” while for every 1 JetBlue passenger, there are 7.58 Likes. Similarly, while PATH has approximately 1 Twitter follow for every 20 riders, American Airlines has more than three times that ratio. JetBlue and American Airlines demonstrate that although they likely have very few daily users, it is essential for both public and private transportation

providers to promote their brands online, as it results in a heightened ability to perpetuate their messaging among users and fans.

- YouTube and Flickr have become useful tools for agencies looking to better illustrate their work, narrate a visual representation, or explain topics more in-depth. MTA Headquarters, BART and American Airlines are the most prolific video uploaders, and MTA Headquarters, NYC DOT and JetBlue share the most photos. Not only are these videos and photos beneficial to their audience, but they are also highly shareable content, meaning that the agency’s message can perpetuate far beyond their direct audience. These tools, and/or others providing homes for multimedia content, are essential to agencies moving forward.
- Blogs help agencies hold longer-form discussions about topics of interest to their customers, such as controversial policies, explaining budgetary items, and requesting feedback on projects. Locally, blogs are best used by NYC DOT in The Daily Pothole, tracking pothole repairs<sup>17</sup>, and JetBlue, exploring airline news<sup>18</sup>.
- Although New Yorkers are heavily using FourSquare, BART was the only provider in this list with a FourSquare presence on its home page. In fact, BART works with the company to provide “badges,” essentially in-game achievements, for checking-in at its stations. This arrangement benefits users who are being entertained, but also BART itself in being able to disseminate location-based information, build a ridership community, and boost marketing and ridership.
- BART excels beyond all the other providers on this list by providing links to both social media and alerts in one location on its home page, showing that they understand the inextricable link between service information and customer interactions. (See Appendix A)

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<sup>17</sup> <http://thedailypothole.tumblr.com/>

<sup>18</sup> <http://blog.jetblue.com/>

## Analysis of Local Twitter Use

For this study, data was collected on the usage of regional transportation providers’ use of Twitter over the period of two months, May and June, 2012. Twitter was chosen because it is the simplest, fastest and most low-maintenance tool available for the immediate customer messaging often needed in local transportation systems, which can be delayed, canceled or otherwise affected at any moment, affecting thousands of people. With all local transportation providers at least having a presence on Twitter, an analysis of customer communications using this medium provided numerous insights about their messaging practices, goals and tones.

The NYU Rudin Center evaluated seven local transportation providers’ tweets over a two-month period (May and June, 2012), including both headquarters-based accounts and separate, service line-based accounts. Two airlines, American Airlines and JetBlue, were also evaluated in order to contrast the public and private sectors. The transportation providers and their Twitter account names evaluated in this study are:

Organization	Twitter Name
<b>American Airlines</b>	AMERICANAIR
<b>JetBlue</b>	JETBLUE
<b>NJ Transit</b>	NJ_TRANSIT
<b>NJT Northeast Corridor</b>	NJTRANSIT_NEC
<b>NYS DOT - 511</b>	511NYC
<b>NYC Taxi and Limo Service</b>	NYC_TAXI_LIMO
<b>PATH Airports</b>	NY_NJAIRPORTS
<b>PATH</b>	PATHTWEET
<b>NYC DOT</b>	NYC_DOT
<b>MTA</b>	MTAINSIDER
<b>NYC Transit</b>	NYCTSUBWAYSLOOP
<b>LIRR</b>	LIRRSLOOP
<b>Metro North</b>	METRONORTHTWEET

The tweets were automatically loaded into a database and categorized by their perceived goal: information (such as service alerts or look-ahead travel information), marketing (including the advertising of company services), and engagement (including responses to comments and re-

tweets, or the re-posting of others' tweets). The tweets were granularly separated into the following categories (into more than one category as necessary):

1. Service information – current travel information, including look-aheads of up to an hour, for example: “Delays on I-87 Major Deegan Expy south btw ex 8 - West 179th St (NY) and ex 7N-7S 7N & - I-95-Cross Bronx Expy (NY)” - @511NYC
2. Transportation look-ahead information, such as weekend construction previews: “#ServAdv: #M suspended b/t Metropolitan Ave & Myrtle Ave this weekend. Plan ahead with #MTAWeekender available 24/7 <http://bit.ly/MnieRs>” - @NYCTSubwayScoop
3. General information, marketing, and administrative, such as advertising of new transit services: “We love out [sic] littlest customers so we posted some of our kids travel tips <http://bit.ly/JBKIDS> to help families (and those around them!).” - @JetBlue
4. Customer engagement, including replies and re-tweets: “@ohanggyee Should you experience this issue in the future, tweet station & machine ID num so we can dispatch staff to address the issue. ^RJ” - @PATHTweet
5. Entertainment, such as posts related to news, cultural or sports events: “We’re proud to sponsor over 30 #Broadway & off-Broadway Theaters in #NYC! Tell us: what’s your favorite #musical? <http://bit.ly/AABway>” - @AmericanAir
6. Non-English posts: “@lion05 Nos da gusto!” - @AmericanAir
7. Photo/video content, including links to external sites with original content: “Photos: This weekend, we repaired tracks in Brooklyn and Manhattan on the 3, 4, 5, 6, B, D, F, M and Q Lines. <http://flic.kr/s/aHsjBxswhs>” - @MTAInsider

For analysis, broader categorizations were used: service information (1 and 2), marketing (3) and engagement (4, 5, 6 and 7). The chart of all results is summarized in Appendix B. Several major patterns emerged:

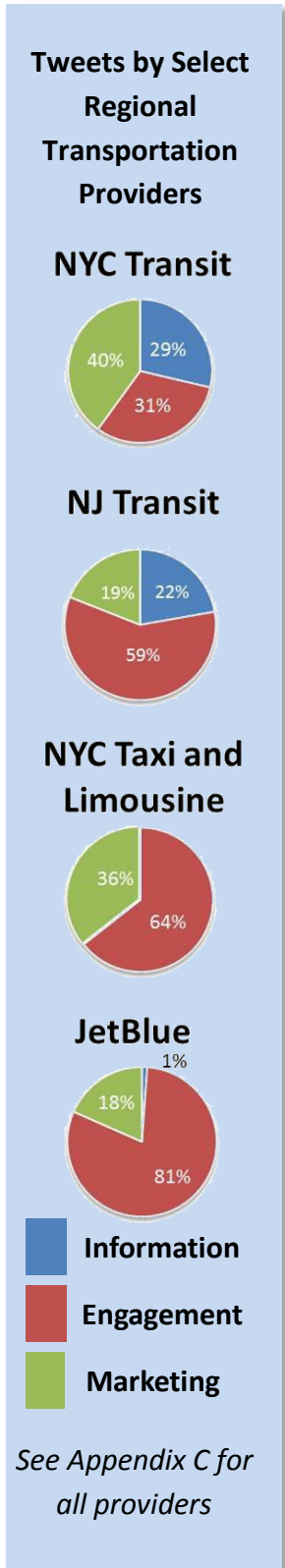
**All transportation providers varied widely in their proportions of service information, engagement and marketing.** For example, 511NY provided almost solely information, while the airlines focused primarily on engagement. The airlines’ use of engagement is appropriate, as large-scale accounts need not provide information about specific flights to all followers. On the

other hand, accounts like NYCTSubwayScoop lack sufficient information posts; although they tweet large-scale delays and disruptions, these posts are often quickly superseded by marketing messages, a major drawback during the rush hour commute, and quite possibly the reason for their relatively low number of followers.

The actual proportions for each provider are shown in Appendix C. No public transit provider seems to have perfected the proper proportions of information, marketing and engagement, as proposed later in this report.

**Many transportation providers are over-marketing and under-informing.**

This trend is most prevalent in the NYCT Subways account, which posted 40% marketing and 29% information messages to its 32,545 followers, but maintains more than 76,000 users of its service information-only email system<sup>19</sup>. The account also posted only 556 current service information-based tweets over the two month period, while the average two-month stretch has 763 service alerts.<sup>20</sup> Clearly the subway-riding audience is seeking more service information than is currently being provided via Twitter. Other transportation service providers that marketed more than informed are NYC DOT (35% marketing, 9% information) and NYC Taxi & Limousine (36% marketing, 0% information). The airlines also marketed more than informed, however, they are catering to audiences that are using more diversified resources, and so universal service information posts would not be useful to the vast majority of their followers.



<sup>19</sup> <http://www.straphangers.org/alerts/methodology.pdf>

<sup>20</sup> <http://www.straphangers.org/alerts/>

**Few transportation providers use Twitter to its maximum potential**, particularly concerning hashtags and dynamic content. Twitter hashtags, used to designate specific keywords for user searches and third-party application imports, should be used widely and uniformly. Rather than using jargon-filled hashtags as NYCTSubwayScoop does, such as #ServAdv for Service Advisory, they should use #Alert. Further, although train routes on some accounts are assigned hashtags, they should actually be separate accounts. For example, the Wassaic Branch should have its own Twitter handle, rather than a hashtag, which requires LIRR customers to read about irrelevant service information. New Jersey Transit does provide separate accounts for each line, which seems to be a popular feature among its users.

However, New Jersey Transit, and most regional transportation providers, are **lacking dynamic content**, such as photos and videos, that help illustrate concepts like construction work, explain policies through discussion, and demonstrate use of the system. With interesting and powerful content, users will be informed, engaged, potentially inspired to change their behaviors, and may share the content with others. Although the MTA network and both airlines studied are regularly posting dynamic content, the vast majority of transportation providers have not embraced the inherent information and marketing potential of shareable content.

**Dynamic Content on Twitter:**  
 Hashtags  
 Photos  
 Videos  
 Questions  
 Contests

Several transportation providers **asked few questions of their audience**, neglecting a tool that would be useful for both engaging customers and gathering information. Although the airlines, NYC Transit and NJ Transit asked large numbers of questions, other providers, like Metro-North, LIRR and PATH, have not realized the two-way conversation potential on Twitter. Conversely, some questions were posted rhetorically, such as NYC Transit’s “Want to learn more about the art in the system? Download our Arts for Transit app.” This question may have fared better as a tool for audience polling, such as asking “What’s your favorite subway art?” which would have stimulated audience engagement. By not asking questions, transportation providers are missing opportunities to learn from their audiences where information is needed, and to foster positive relationships.

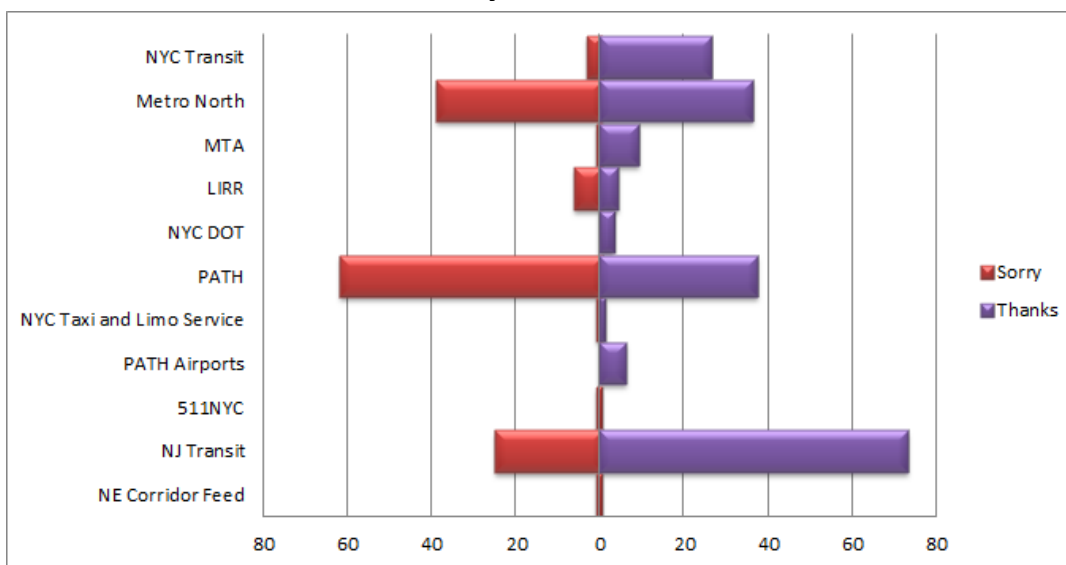


**Private transportation providers focus on customer service far more than public providers.**

Specifically, the airlines apologized far more than public transportation providers for delays and cancellations: in the two months studied, American Airlines wrote “sorry” and its synonyms 3,949 times; PATH, 62 times; Metro-North, 39 times; NJ Transit, 25 times; and the others, three or fewer times. Similarly, while customer engagement dominated both airlines’ Twitter accounts (85% on average), demonstrating their need to be constantly responsive to and direct with customers, public transportation providers communicated less directly with their customers (34%). These patterns indicate a universal orientation toward customer service throughout the private companies, which must earn and maintain customer loyalty. However, public transportation providers, which often have a monopoly on customers, likely do not feel the same need to focus on them.

In contrast, the public transportation providers accepted ‘thanks’ at a greater rate than they issued apologies (on average 17.7 “thanks” versus 12.6 “sorry”). This pattern was most pronounced in NYC Transit’s feed, which posted 26 “thanks” and variants, but only 3 “sorry” and variants, and NJ Transit, which posted 73 thanks and 25 apologies. See the chart below for all Sorry/Thanks comparisons. This diversion may result from the typically thankless work of transit management, making compliments especially meaningful.

**Instances of “Sorry” and “Thanks” in Tweets**



**The tone used on Twitter trends toward the negative.** Both public and private transportation providers used “yes” and “no” frequently, but each sector used “no” at three times the rate as “yes,” with an average of 15 yeses and 48 no’s. While a “no” may not necessarily indicate negativity (and could indicate a lack of service or a correction of misinformation), the difference is profound. All providers posted more no’s, with the single exception of Metro-North, which posted an equal number (2).

**Only the airlines used Twitter extensively for non-English posts.** American Airlines posted 42 non-English tweets, and JetBlue, 20. The only public-sector accounts to post non-English tweets were MTA Insider and NYC Transit, with 3 each. These numbers are extremely low for the New York Region, where 48% of the population natively speaks a language other than English<sup>21</sup>. Information, especially of urgent travel importance, should be provided at least in Spanish (52% of foreign-born New Yorkers have come from Latin America)<sup>22</sup>. Clearly there should be much more attention to the non-English speaking population by transportation providers.

### Implications of Twitter Use

These findings have several implications for travelers in the New York City region. Because every Twitter account studied saw a continual increase in followers over the two months studied (which may be a function of known flaws in Twitter’s counting processes), it can be assumed that an increased proportion of New Yorkers will use local transportation services more efficiently: they will be more aware of delays, diversions and alternate routes, allowing them to adjust as necessary. The increased audience reach will greatly enhance mobility throughout New York.

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<sup>21</sup> U.S. Census: <http://quickfacts.census.gov/qfd/states/36/3651000.html>

<sup>22</sup> U.S. Census

However, several findings in the Twitter analysis show a need for transportation providers to re-align their use of social media for better information, engagement and marketing purposes.

Nearly all local public-sector Twitter accounts primarily use the tool for one-way communication, without interacting sufficiently with their audience. Often the accounts post marketing messages just as, or more, often than direct engagement messages. The goal of marketing messages is to inform the audience about services and to garner goodwill; however, those needs are met just as well, if not exceeded, through direct communications. The downsides of over-marketing are being perceived as spammers, resulting in decreased and disinterested audience members. As seen in the analysis, information is the primary draw, and direct communication accomplishes much of marketing's goals.

The most beneficial aspect of "listening" via social media is the ability for transportation managers to learn from their customers, such as discovering conditions in the system, exceptional employees, or misinformation that may have perpetuated through the customer base. Transportation managers can potentially learn a significant amount from their audience, and should opt for engagement over marketing when attempting to reach out to customers.

A relative scarcity of information, combined with under-apologizing and over-thanking, can be perceived as a lack of accountability for service interruptions. Of the transportation providers (and not headquarters), this pattern was seen in PATH, NYC DOT and NYCT Subways accounts. When information is inadequate, and customer service is not a focus, customers may not trust the service provider, and its public reputation may not be helped, despite extensive engagement and marketing efforts. Information and accountability go hand-in-hand for informed, mobile and trusting customers.

The customer base is further limited by the fact that all regional Twitter accounts studied are conducted almost exclusively in English, with 0.2% of all posts over the two-month period

appearing in a different language. However, Twitter itself supports 49 languages (Facebook supports 70);<sup>23</sup> a lack of non-English posts is truly a missed opportunity for better customer information.

Finally, very few of the Twitter-based exchanges were aimed at community-building, a goal that would help keep entire communities informed, rather than reaching out to individuals. For example, the Twitter ‘list’ function would help residents of specific neighborhoods reach out to all feeds that apply to them, and as the typical hub of a neighborhood, the transportation providers should help supply this list, and take part in discussions around local topics (if staff resources are an issue, local station managers can be assigned this role). Furthermore, specific Twitter accounts should be set up around stations, lines, and/or neighborhoods to help communities better understand the service changes that affect them directly, and as another channel for customer service. This work would make great strides in holistically informing, engaging and marketing to customers.

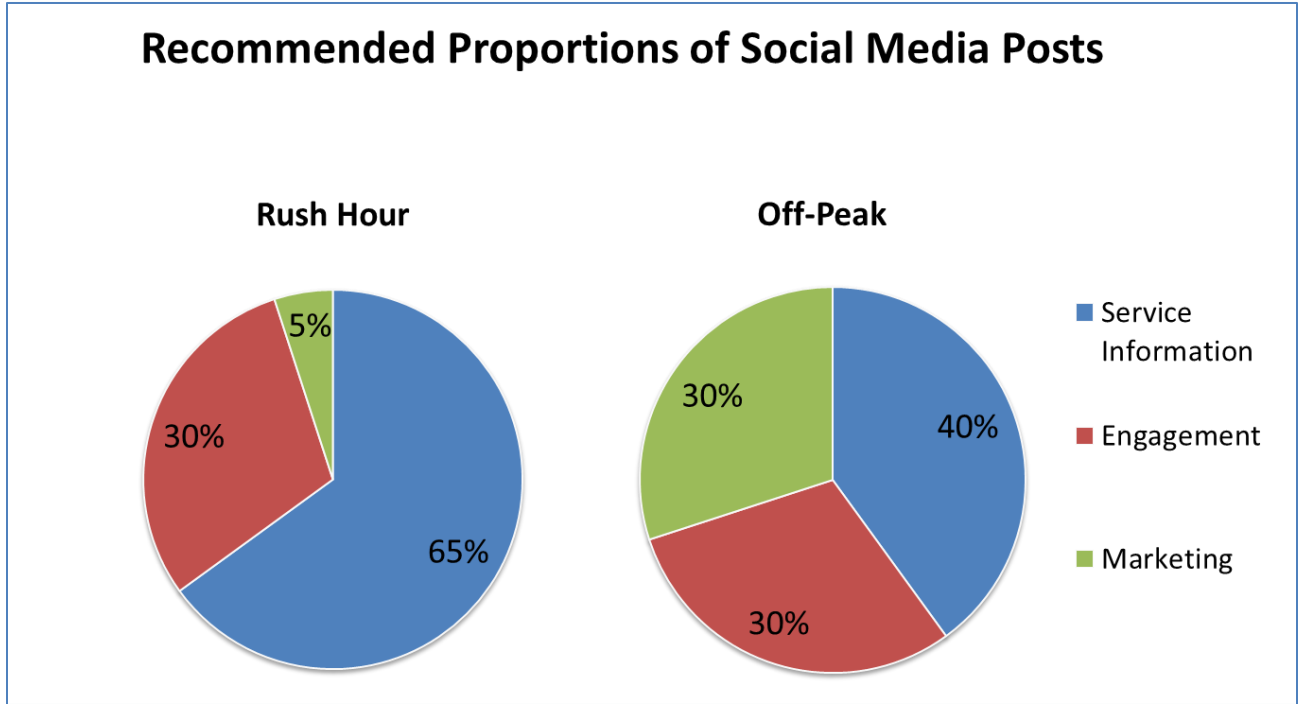
Again, the goals of social media in transportation are to inform, motivate and engage. Based on the analysis in this report, the ideal proportions for Twitter posts by public transportation agencies, that will help users be informed, motivated to change their plans as needed, and engage their network, are the following:

**Rush Hour:** 65% service information, 30% engagement, 5% marketing

**Off-Peak:** 40% service information, 30% engagement, 30% marketing

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<sup>23</sup> Dugan, Lauren. “Twitter To Add 16 More Languages To Its Translation Center,” MediaBistro: All Twitter. September 20, 2012. [http://www.mediabistro.com/alltwitter/16-new-languages-to-translation-center\\_b28751](http://www.mediabistro.com/alltwitter/16-new-languages-to-translation-center_b28751)



Overall, a collaborative and inclusive approach, with more information and less chatter, would result in a better experience for transportation users on Twitter. Transportation providers should develop social media strategies for discussions across multiple social media sites, as discussed in the forthcoming companion to this report concerning policy recommendations.

Appendix A: San Francisco BART's Home Page

The screenshot shows the BART website home page with the following elements:

- Header:** "Contact / BART Map" and a search bar.
- Navigation:** Home, Stations, Schedules, Tickets, Rider Guide, News, About BART.
- Logo:** BART Bay Area Rapid Transit.
- QuickPlanner:** A form with fields for "Station" and "Address" for "Departing from?" and "Arriving at?". It includes radio buttons for "Departing around" and "Arriving around", and a "Get Schedule" button.
- Service Advisories:** A section with a red status bar indicating "49 trains: no delays reported." Below it, "Real Time Departures" for "12th St. Oakland City Center" at "12:52 pm". A table lists train arrivals:
 

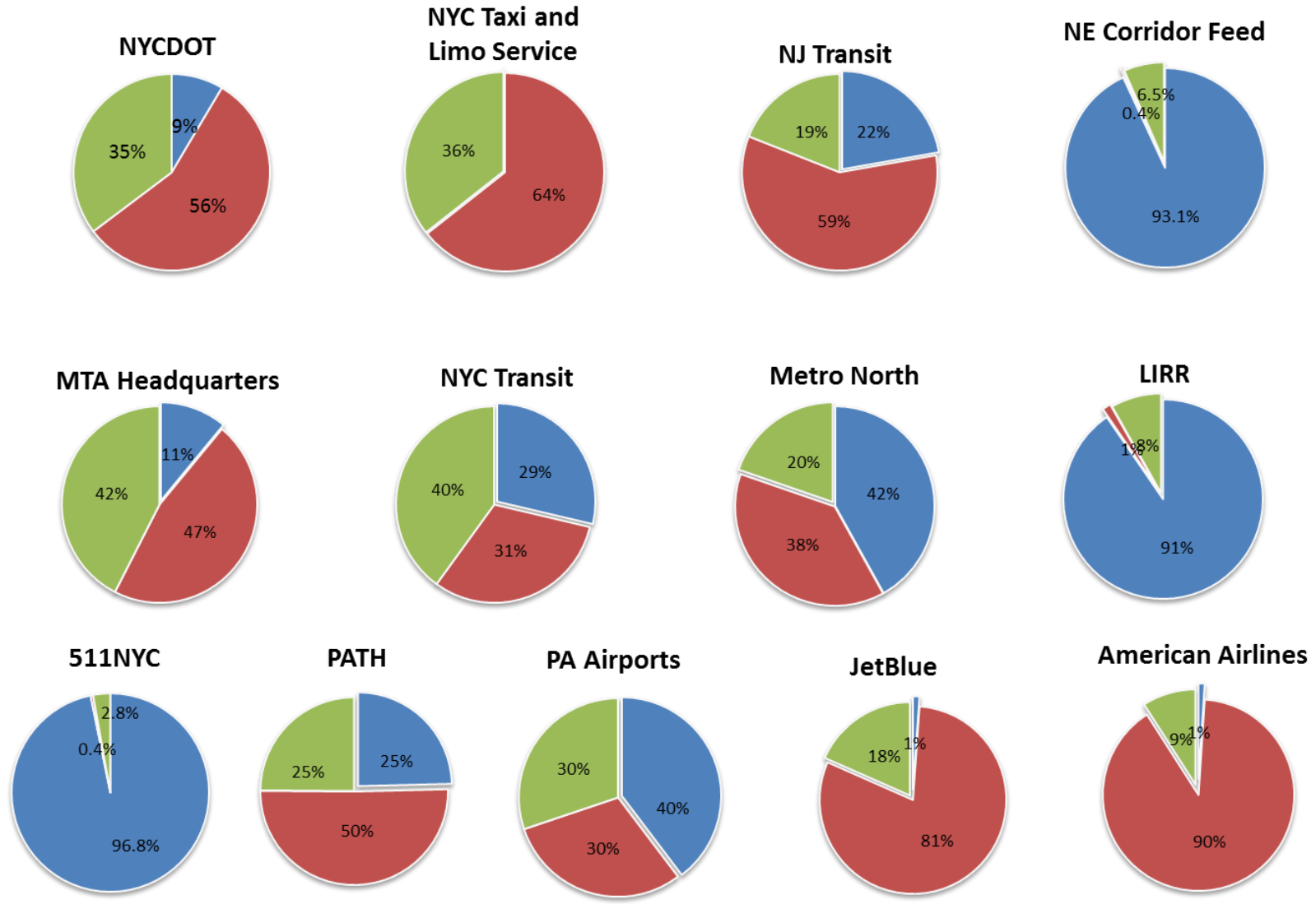
Train	Color	Time
RICH	Red	Leaving, 7, 15 min
<b>Platform 2</b>		
FRMT	Orange	9, 24, 39 min
MLBR	Red	2, 15, 30 min
SFIA	Yellow	7, 22, 37 min
<b>Platform 3</b>		
PITT	Yellow	1, 16, 31 min
- Main Content:** A large image of a smiling man with glasses, with the headline "Commute Period Bike Pilot" and subtext: "A new pilot program will allow bikes on BART all day long every Friday in August. Learn about the pilot. Watch the video." Below this is a "Go Mobile" section with the text: "BART is on more mobile platforms than you can shake a stick at: get real time departures, advisories, trip planners, fares, schedules and more while you're on the go. Read More".
- Right Sidebar:**
  - "New to BART? Start here ..." with links: Rider guide, Tickets / Clipper® Cards, Station parking, Airport service (SFO/OAK), Commuter tax benefits, Mobile options.
  - "BART reports record ridership and progress on escalator repair".
  - "Pilot program will allow bikes on BART all day on Fridays in August" with a link to "First day's video".
  - "NYC's experience informs BART commute period bike pilot".
  - "Elevator at Montgomery Station to be out of service Aug. 13 and 14".
  - "Expect Saturday delays on Pittsburg/Bay Point line through October".
  - "Expect Sunday delays between South Hayward and Fremont through October".
- Footer:** "BART TV / Mobile Site", "Contact / Privacy", and a row of international flags.

## Appendix B: Summary of Tweets Analyzed, May 1 - June 30, 2012

Organization	Twitter Name	Followers on May 1	Followers on July 1st	Total Tweets	Transportation service info (current)	Transportation service info (look ahead, as in weekend preview)	General info/marketing/administrative	Engagement (RT or tweeting @ someone)	Entertainment (e.g. "go mets")	Non-english comments	Photo/video content	Totals - with multiple listings	Inform %	Engage %	Market %	"Sorry" or "oops" or "apologize"	"Thanks" or "Thank you" or "Thx"	"Yes"	"No"	Cancel or delay	Questions ("?")
American Airlines	AMERICANAIR	359,904	387,804	13,598	150	5	1376	13513	49	42	11	15146	1.0%	89.9%	9.1%	3949	3724	115	382	2170	880
JetBlue	JETBLUE	1,672,718	1,676,633	4,619	61	4	1076	4488	200	20	4	5853	1.1%	80.5%	18.4%	362	984	39	82	200	474
NE Corridor Feed	NJTRANSIT_NEC	2,750	2,932	263	247	9	18	0	1	0	0	275	93.1%	0.4%	6.5%	1	0	0	14	159	0
NJ Transit	NJ_TRANSIT	9,523	10,758	1,011	202	75	237	701	26	0	6	1247	22.2%	58.8%	19.0%	25	73	24	57	75	190
511NYC	511NYC	878	1,041	9,028	8374	1899	297	0	44	0	0	10614	96.8%	0.4%	2.8%	1	0	0	9	1916	0
PATH Airports	NY_NJAIRPORTS	6,722	7,684	93	19	31	38	32	4	0	2	126	39.7%	30.2%	30.2%	0	6	0	3	7	11
NYC Taxi and Limo Sen	NYC_TAXI_LIMO	3,287	3,624	52	0	0	26	20	10	0	17	73	0.0%	64.4%	35.6%	1	1	0	1	1	4
PATH	PATHTWEET	13,445	14,012	294	47	45	93	186	2	0	1	374	24.6%	50.5%	24.9%	62	37	10	14	14	17
NYC DOT	NYC_DOT	15,185	16,392	179	7	15	91	108	32	0	5	258	8.5%	56.2%	35.3%	0	3	1	4	3	2
LIRR	LIRRSLOOP	5,118	5,686	1,759	1631	58	153	7	19	0	0	1868	90.4%	1.4%	8.2%	6	4	0	12	253	2
MTA	MTAINSIDER	22,171	23,561	158	10	20	116	61	40	3	23	273	11.0%	46.5%	42.5%	1	9	2	2	1	13
Metro North	METRONORTHTWEET	5,063	5,632	242	102	15	55	99	8	0	0	279	41.9%	38.4%	19.7%	39	36	0	1	35	16
NYC Transit	NYCTSUBWAYSLOOP	30,439	32,545	1,903	556	206	1063	542	208	3	79	2657	28.7%	31.3%	40.0%	3	26	6	39	160	298
	<b>TOTALS:</b>			<b>33,199</b>	<b>11406</b>	<b>2382</b>	<b>4639</b>	<b>19757</b>	<b>643</b>	<b>68</b>	<b>148</b>	<b>39043</b>	<b>35.3%</b>	<b>52.8%</b>	<b>11.9%</b>	4450	4903	197	620	4994	1907
	<b>AVERAGE:</b>	165,169.5	168,331.1	2,553.8	877.4	183.2	356.8	1520	49	5.2	11	3003	<b>35.3%</b>	<b>42.2%</b>	<b>22.5%</b>	<b>342.31</b>	<b>377</b>	<b>15</b>	<b>48</b>	<b>384</b>	<b>147</b>

Appendix C: Proportions of all Tweets

■ Inform % ■ Engage % ■ Market %





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