

TWEET ANALYSIS

CHICAGO UNIVERSITIES

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EXECUTIVE SUMMARY

Twitter can be a valuable platform for communication, relationship-building and information gathering. This is especially true for universities, whose constituencies are broad and diverse.

However, while quantity of data is vast, it not always useful. This project isolates relevant Twitter activity for the University of Chicago's public outreach.

A comparative analysis has been completed for four prominent Chicagoland universities: the University of Chicago, Northwestern University, DePaul University, and the University of Illinois at Chicago (UIC).

Two themes have been explored:

1. Overall activity, including volume of tweets, longitudinal trends, and uniqueness of tweets; and
2. Twitterer profile analysis, including the number of people tweeting about each university, their locations, and influence

METHODOLOGY

Source data

- Approximately 350 million Twitter records (2TB+) were collected, which included tweets about American universities.
- UChicago, Northwestern, DePaul, and UIC were selected for this study due to their location and consequent competitiveness.

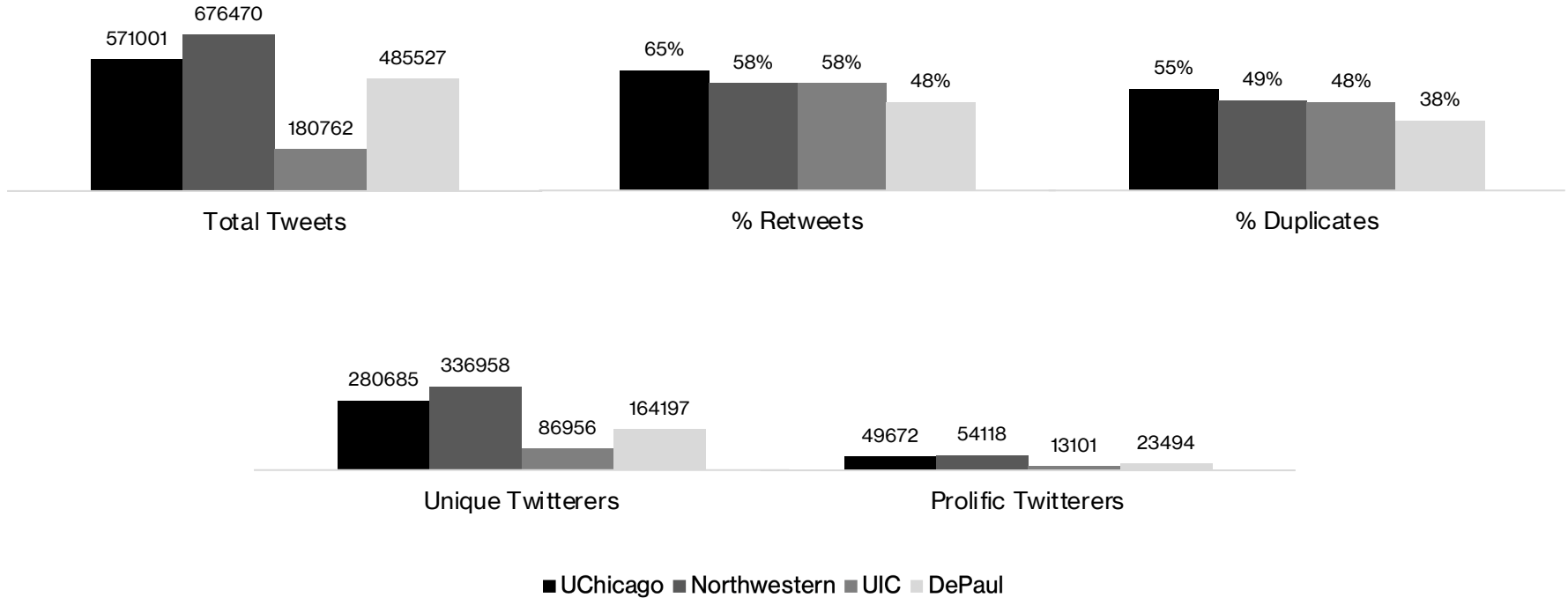
Data filtering

- Data filtering took place in Spark. After completing EDA with a small number of articles, a set of filter words were identified (included in notes below) and used to filter relevant records. This resulted in an initial volume of ~6 million tweets.
- Relevant variables were then selected, including date of tweet creation, text, profile description, as well as details about each Twitterers' profile.
- English-only tweets were also selected, which narrowed the collection to 3.4M tweets.
- Individual csv files were then created for each institution, each of which required further analysis and cleaning to ensure relevancy.

Variable definitions

- There are several important variables in this report that were created for analysis:
 - "Prolific Twitterers" are those who are prominent on Twitter generally. They are either Verified Users, have tweeted/retweeted more than 50,000 times or have more than 10,000 followers.
 - A Twitterers' location is self-declared in their profile.
 - "Retweets" were identified by inclusion of an "RT" in a tweet's text, whereas duplicate tweets were identified via text analysis.

OVERVIEW



PROLIFIC TWITTERERS

UChicago

screen_name	num_tweets	statuses_count	percentage
UChicago	2705.0	21260	12.7
UChicagoMed	669.0	14875	4.5
HarrisPolicy	619.0	15254	4.1
shazrasul	609.0	53546	1.1
spark_radio_net	525.0	166738	0.3
nuclear94	410.0	430422	0.1
SmartUChicago	399.0	7069	5.6
haileysecretary	367.0	1829202	0.0
pstanpolitics	367.0	381	96.3
JoeSilverman7	324.0	153763	0.2
sofiaorden	311.0	638880	0.0
argonne	285.0	16762	1.7
n8taki	284.0	334413	0.1
wendchain	283.0	396150	0.1
a2yulia	274.0	578545	0.0
ChicagoMaroon	273.0	6499	4.2
in3ez	265.0	574971	0.0
UChicagoMag	242.0	25803	0.9
UChicagoNews	239.0	3302	7.2
BeckerFriedman	236.0	15300	1.5

Northwestern

screen_name	num_tweets	statuses_count	percentage
insidenu	997.0	54895	1.8
cfbscoresbot	806.0	114797	0.7
NorthwesternU	522.0	15404	3.4
micheleweldon	514.0	63127	0.8
sbncollege	505.0	522286	0.1
thedailygnu	493.0	41271	1.2
NatsAndCats	486.0	93223	0.5
PAndres2001	483.0	86281	0.6
jmkuhn99	436.0	172667	0.3
amcneer	410.0	563364	0.1
ChicagoSports	370.0	182528	0.2
NotreDameSpyder	369.0	84727	0.4
Derek_Morgan_	336.0	76740	0.4
NBANewsNow247	331.0	533344	0.1
RandyHlavac	307.0	51681	0.6
GoldandBlackcom	306.0	96006	0.3
Tradition	301.0	43957	0.7
chicagotribune	293.0	231754	0.1
NUFeinbergMed	289.0	11473	2.5
NUAlumni	285.0	11710	2.4

UIC

screen_name	num_tweets	statuses_count	percentage
nashvillehghmag	599.0	107712	0.6
ClearanceJobsVA	331.0	92115	0.4
UICNews	273.0	11183	2.4
uicflames	262.0	17155	1.5
cfbscoresbot	197.0	111572	0.2
prpnews	185.0	887492	0.0
purplepassion12	164.0	163329	0.1
kingLouie005	150.0	85327	0.2
dabyronicred	132.0	70812	0.2
ClearanceJobsMD	122.0	56532	0.2
scottgr60613	111.0	82805	0.1
transit_tweets	102.0	316809	0.0
IHSAScoreZone	96.0	159122	0.1
cta	94.0	87560	0.1
earlworthington	92.0	558116	0.0
NurseRabbi	91.0	136449	0.1
cbschicago	77.0	159499	0.0
xlove_delilahx	76.0	171140	0.0
GTBaseball	72.0	32791	0.2
ABC7Chicago	70.0	251517	0.0

DePaul

screen_name	num_tweets	statuses_count	percentage
samsesles	2020.0	22782	8.9
DePaulU	1204.0	25841	4.7
groovatron2000	933.0	66037	1.4
becb_sbn	923.0	79770	1.2
BigNorthConBNC	821.0	155524	0.5
CoachDougBruno	738.0	9610	7.7
EliHershkovich	658.0	28043	2.3
NotHotTakes	512.0	71124	0.7
Ericlosingit	498.0	58503	0.9
VarsityAces	473.0	153349	0.3
DSRrecruitsPWD	454.0	308258	0.1
breezydayz	441.0	103162	0.4
DePaulAthletics	393.0	25138	1.6
johnnysole	371.0	57606	0.6
RobertONeil31	338.0	361573	0.1
amcneer	328.0	564505	0.1
ErnestoHdz_	327.0	61146	0.5
John_Fanta	288.0	131973	0.2
VerbalCommits	273.0	72573	0.4
IHSAScoreZone	270.0	159867	0.2

MONTHLY TWEETS

November 2019

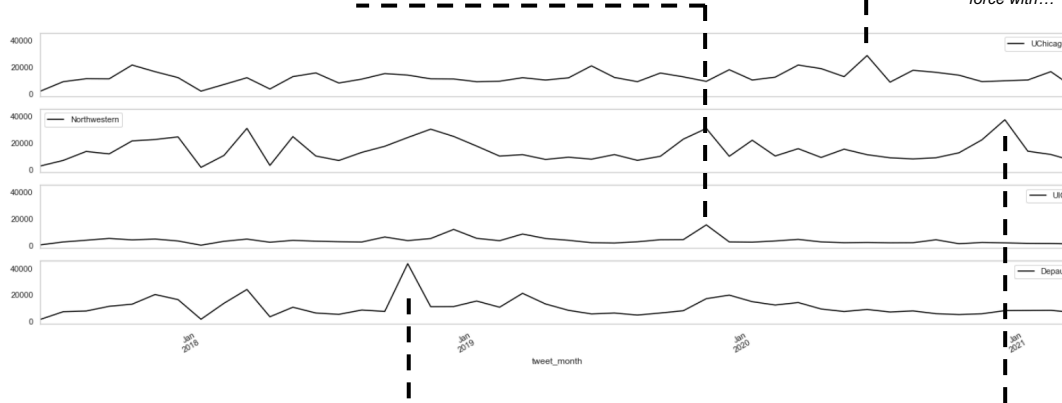
RT @aliemahb: I'm proud to stand with the students organizing #AntiBlackISU. UIC also has a lot of work to do, and I look forward to those...

RT @Some1TouleenOn: Donald dipshit hates Chicago because we protested so hard when he was trying to rally at the UIC Pavilion, that shit go...

June 2020

RT @RaychJackson: white people frazzled by the protest in Hyde Park like University of Chicago didn't expand in black neighborhoods in the...

RT @princessmlokia: So UChicago couldnt afford to lower tuition this quarter but they can afford to arm their private police force with...



October 2018

RT @DePaulAthletics: Being a student-athlete means achieving success in the classroom and on their respective field of competition. Our stu...

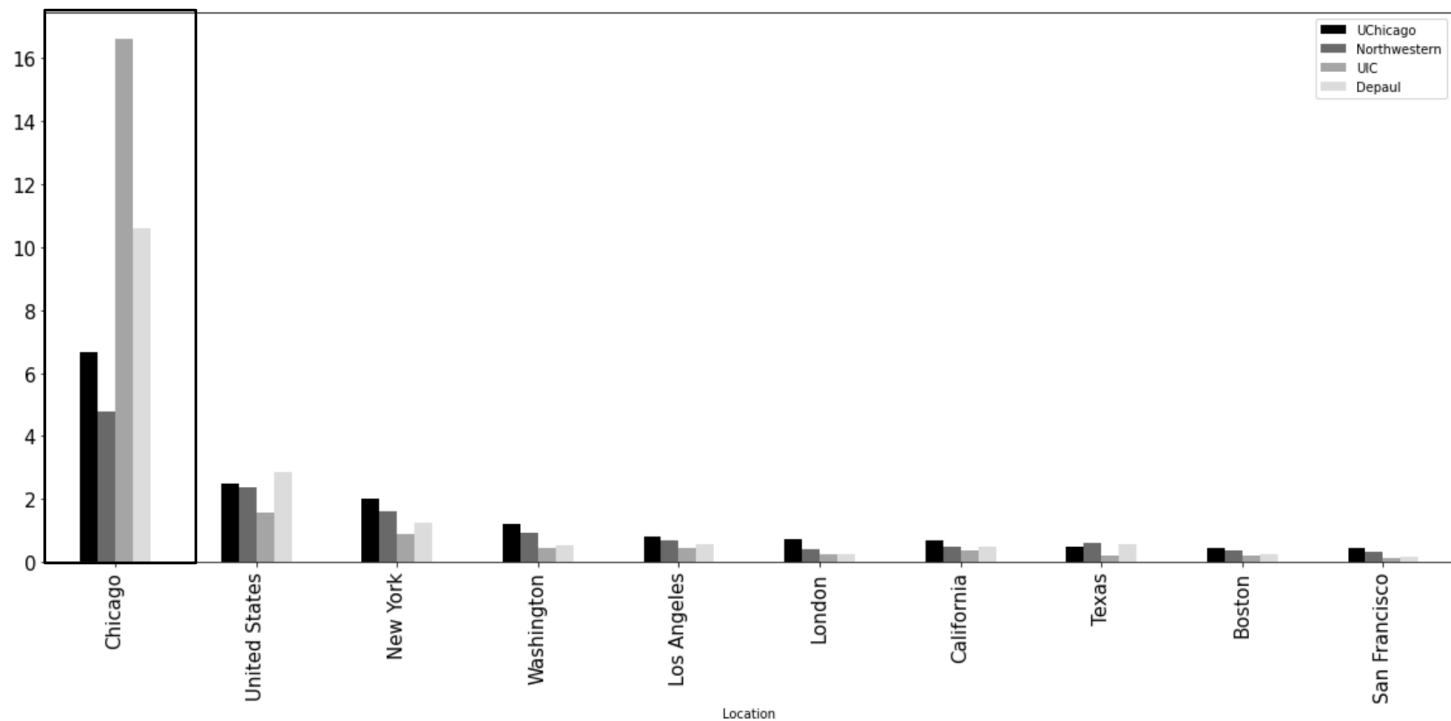
RT @VarsityAces: Congratulations to the <https://t.co/zbMAhcBBKO> Male Athlete of the Week: Johnny Amodeo, DePaul football:

December 2020

RT @medical_legacy: Researchers from Northwestern University have developed a machine learning algorithm to more quickly and accurately ...

RT @democracynow: Today is World AIDS Day. @NorthwesternU's @thrasherxy says that, like HIV, the creation of a vaccine alone is not enough...

LOCATION



CONCLUSION & RECOMMENDATIONS

The University of Chicago and Northwestern are in a league of their own in terms of Twitter activity. Volume of tweets about their institutions are much higher than for either UIC or DePaul. They are also more likely topics of conversation among Prolific Twitterers and those from outside of Chicago.

Regardless of the institution, longitudinal trends share similarities. Tweets over time are generally consistent, but there are rare spikes in traffic due primarily to two topics: politics and sports.

Although Twitter activity is quite high for UChicago, there is space for improvement. Twitter volume from official UChicago accounts is substantially lower than for Northwestern accounts. They could also be more immediately responsive to major events, which would allow for an expansion to new audiences.