

#FinTwit Influencer Analysis

January 2020

Thank you for downloading our social media influencer update. Like you, we are financial professionals who use social media every day to grow our business, learn from others and keep up-to-date with the latest thoughts from subject matter experts. Our hope is that after reading this, you will be better able to navigate financial twitter (#FinTwit) and be more empowered to engage with the community. For us, doing this work has shaped how we focus our conversations on Twitter and has given us a much greater sense of how the various online communities are organized.

We have analyzed over **46.4 Million tweets** from over **50,860 users** and we believe we are the first firm to explore the structure behind #FinTwit and to analyze the dynamics of the conversations between users, not just the content of the tweets.

**We have discovered that #FinTwit is actually
a collection of 6 communities**

We named them based on the occurrence of #hashtags or \$stickers like \$SPY used within each group

\$Tickers	#PoliticalTwitter	#FinTech
#Advisors	#Crypto	\$TSLA

Methodology:

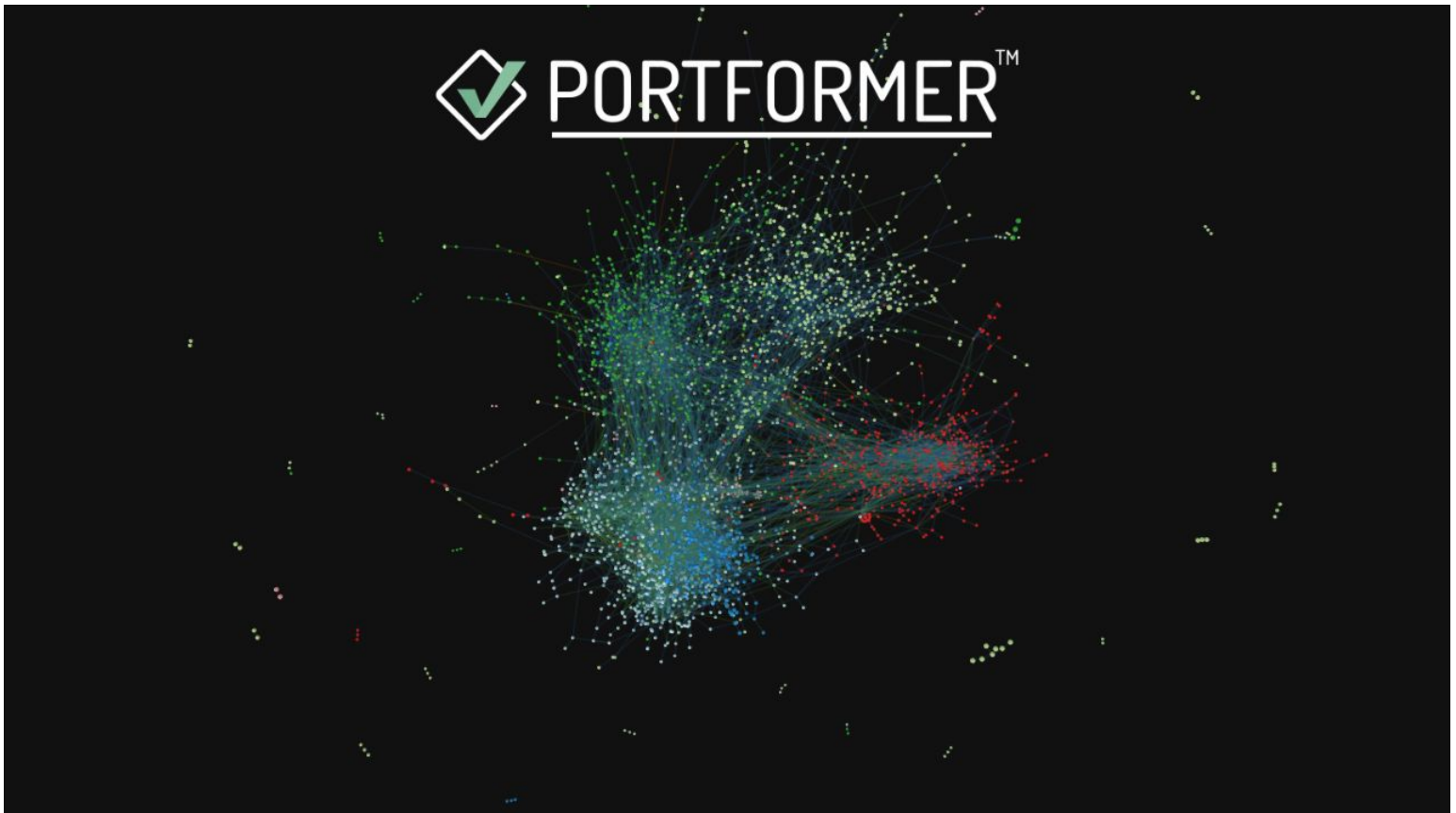
You can read a quick preamble and about our motivation to do this here:

Much of the network theory and implementation details of what we've done here are beyond the scope of this document. However, if you'd like to set up a time to discuss this, please send me an email at skruzel@portformer.com. Here are the high level steps we took:

1. **Data Aggregation:** Starting with a custom list of over 4,000 financial advisors, #fintwit users and influencers, we used Twitter's API to download the last 1,000 tweets per individual. From this initial set of tweets, we identified more users, bringing the total to 50,860 twitter accounts. 46.4 million tweets were downloaded in December 2019.
2. **Processing:** Using the tweet's 'reply_to' data we reconstructed the conversations to classify if a tweet was part of a conversation and which users were active in that conversation. A two users was considered active in a conversation if there were at least two responses via tweets between them during the same conversation.
3. **Classification:** For each tweet in a qualified conversation, we analyzed the topic of the conversation by using [Latent Dirichlet Allocation \(LDA\)](#). We applied a common Natural Language Processing pipeline and best practices to construct a Bag of Words per tweet, including tickers and hashtags that we fed into the LDA model. We were able to identify 6 statistically significant categories of texts.
4. **Filtering:** We filtered out the processed tweets that only included the three most relevant topics for our analysis. We further removed all users that had less than 75 followers and that had a follower / friend ratio less than 75%. These were hand selected to remove several new or potential spam accounts.
5. **Network Analysis:**
 - a. **Community Discovery:** We loaded the filtered and categorized tweets into a network where each node was a user and each edge was a tweet. We then ran [Leiden Clustering](#) to identify communities within the network that are well connected and somewhat disjoint from other communities. This automatically detected 133 such communities. We kept the top 32 largest communities (all with over 100 users) and merged the remaining into a single cluster, leaving us with 33 clusters.
 - b. **Community Naming:** In order to objectively name these clusters ranging from several hundred to several thousand users, I counted the frequency of each processed word (token) from each of the tweets within each of the 33 communities. I used a statistical technique called [Tf-Idf](#) to identify the words in each community that occurred with unusual frequency. I generated word clouds (see in later pages) and named each loosely based on the most relevant tokens. It was clear that 6 of the communities were very extremely relevant for this #FinTwit analysis.
 - c. **Influencer Analysis:** The final step was to isolate the users and tweets for each of the six most relevant communities and run [Page Rank](#) to identify the users that have the most influence in the community. This is similar to how Google initially ranked webpages.

Visualizing the #FinTwit Subcommunities:

Now we want to combine looking at the structure of these networks ‘the who vs whom’ with the content of the dialogue to better tease out how information is spreading through this network. To clearly show these relationships we removed about 76% of the tweets with topics **Gratitude** or **Products / Data Science** to better focus the conversations. We also only displayed users that we categorized in the 6 Finance related subcommunities: **\$tickers**, **#PoliticalTwitter**, **#FinTech**, **#advisors**, **#crypto**, **#tsla**.



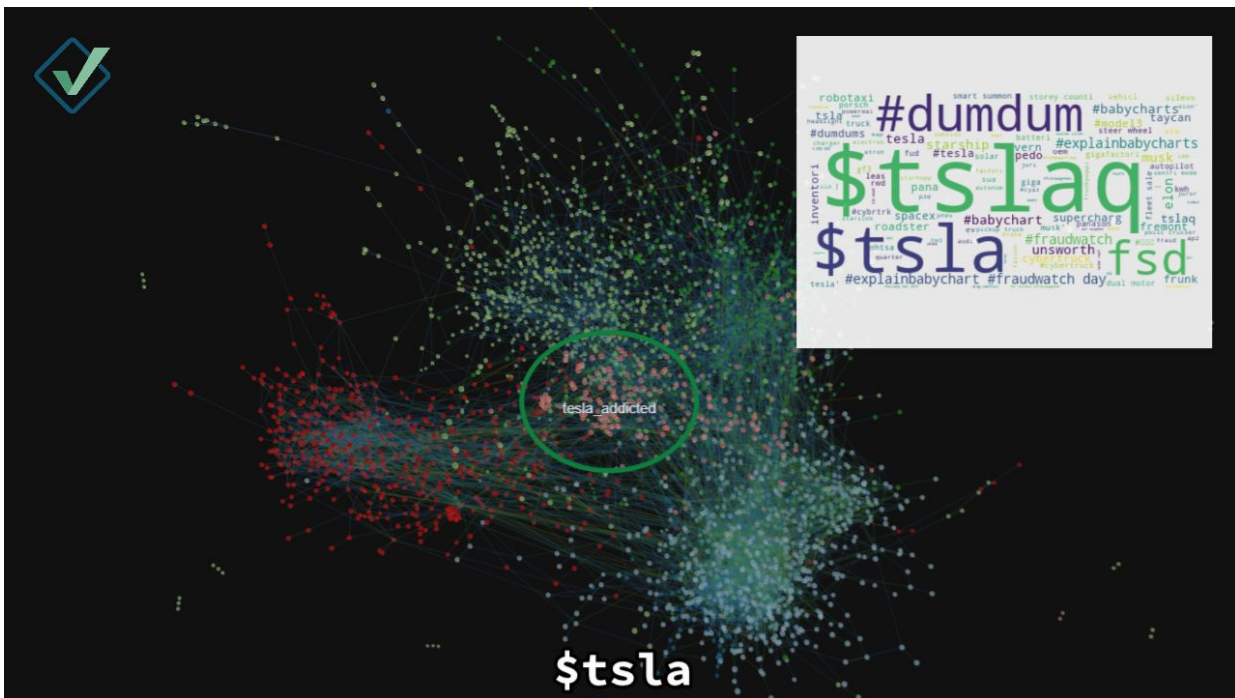
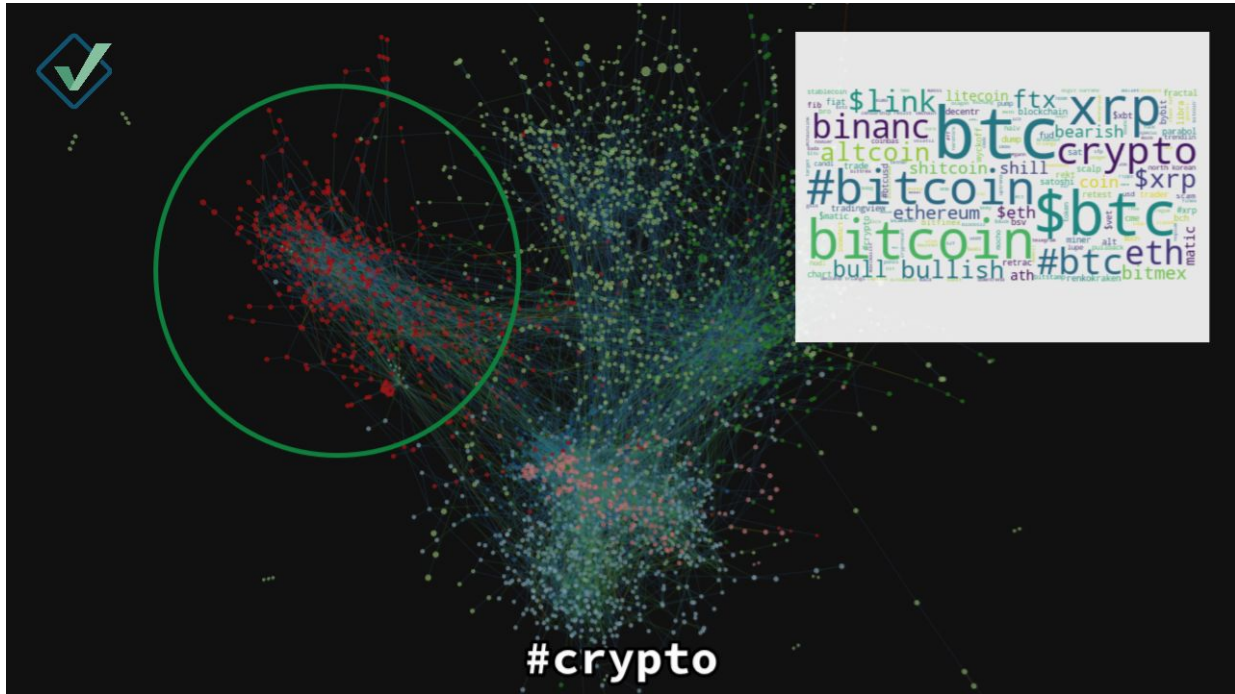
We colored the subcommunities the following colors:

- **\$tickers** **Light Blue**
- **#PoliticalTwitter** **Yellow**
- **#FinTech** **Green**
- **#advisors** **Blue**
- **#crypto** **Red**
- **\$tsla** **Pink**

You might observe that the **\$tickers** and **#advisors** subcommunities overlap quite a bit in the lower left part of the image. In fact, out of the 15 possible types of connections between the 6 subcommunities, the tweets between users in **\$tickers** and **#advisors** are the most common. We will dive into this in more detail in the next section.

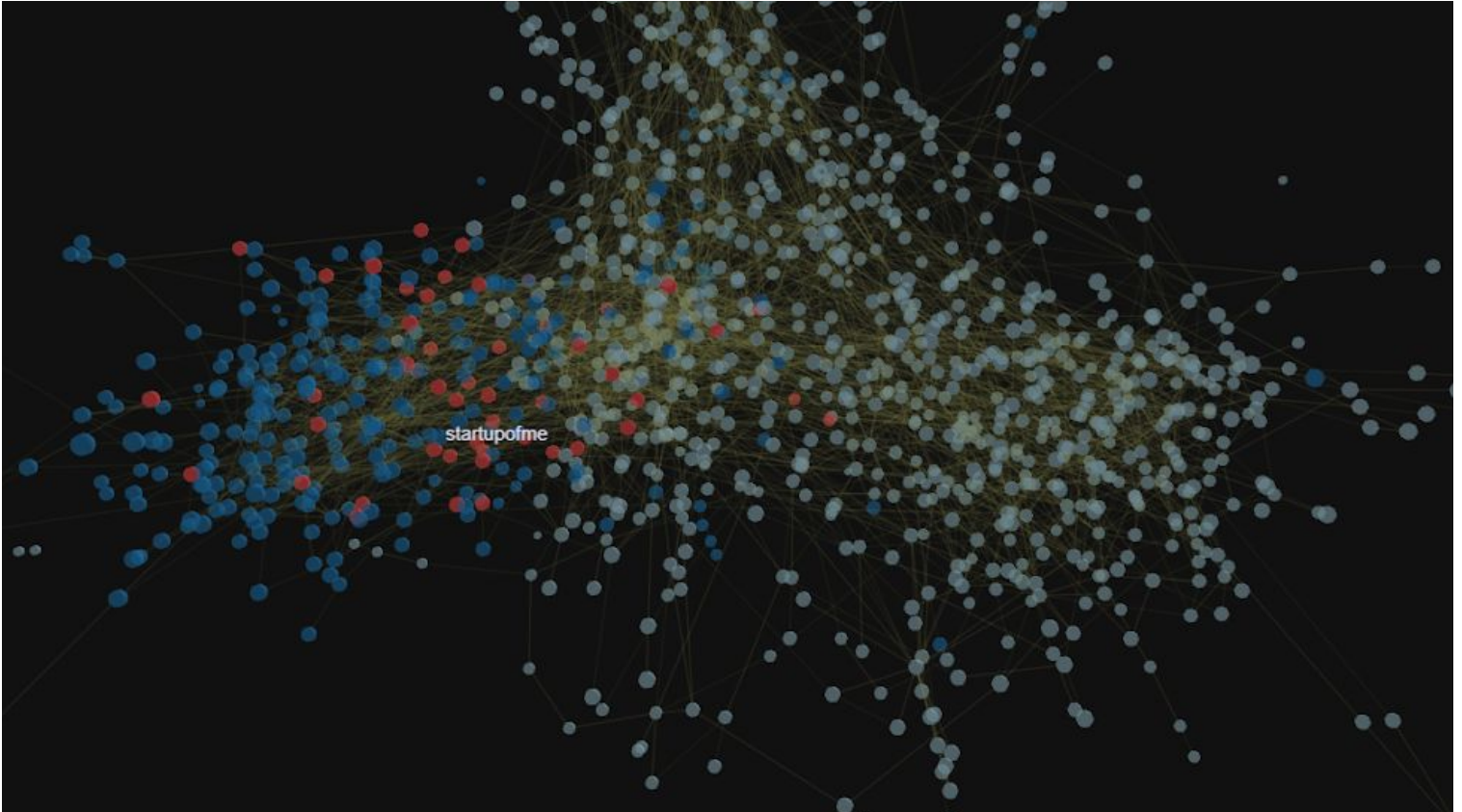
Subcommunity Detail Continued:

The #crypto community is fairly isolated from other communities and is shown below in red. The \$TSLA community (it also contemplated calling this #controversy or #frontpage) is primarily an active 'discussion' about Elon Musk and whether Tesla is a viable company.



Finding 'Connectors' between \$stickers and #advisors:

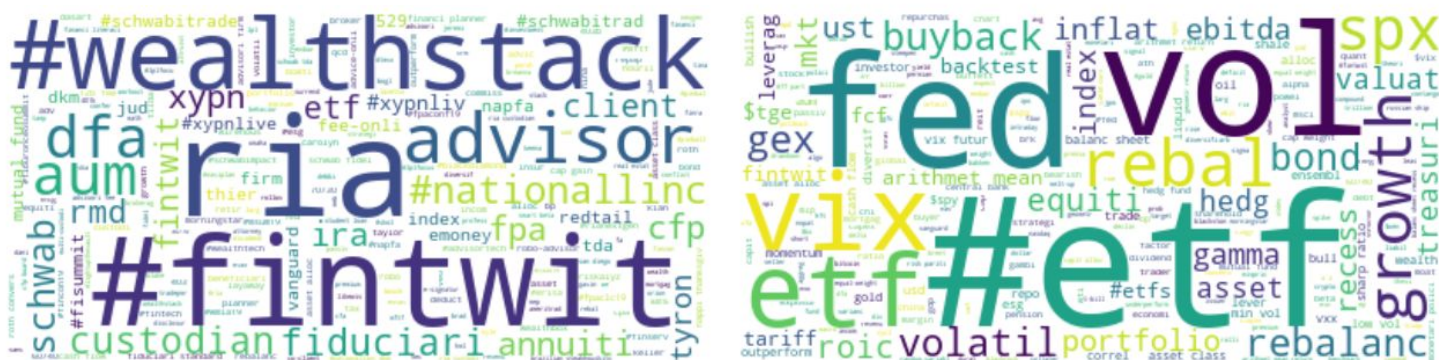
Within our network of Twitter conversations, two distinct communities of users often communicated with each other: The **\$stickers community** and the **#advisors community**. The \$stickers community (shown in light blue on the right side above) often discusses specific investments, ETFs and other markets-related ideas, while the other community, the #advisors community (shown in dark blue on the left), discusses topics like financial planning and more holistic financial topics. This network is visualized differently from the Subcommunity Detail images above since only nodes and edges related to \$stickers and #advisors are shown. The coloring has been modified slightly to better highlight the users we identified as 'Connectors'.



We were interested in the Twitter Users that best facilitated the conversations between the \$stickers community and the #advisors community. To do this we leveraged an algorithm called [Betweenness Centrality](#) that counts the number of paths that one can travel when going between two points and how often those paths encounter a specific point in the middle. You can think about this using an airline analogy: If I wanted to fly from any airport in the US to any airport in Asia, how likely is it that I have to change planes at LAX? The chances are good and therefore LAX has a high Betweenness Centrality.

In the chart above we show [@startupofme](#) highlighted in red. The red points are the 50 users with the highest Betweenness Centrality scores; let's call them the Connectors. They are the LAXs and SF0s of investor to advisor communications.

Portformer™ Top 50 ‘Connectors’ between \$investors and #advisors



What is interesting is that many of these top Connectors have relatively few followers. They shouldn't. They are the type of people who “know a guy who knows a guy” and would bring more diversified information into your Twitter Feed:

Top Connector: **@TylerGellasch**

<https://twitter.com/portformer/lists>

Rank	Twitter Handle	Followers	Rank	Twitter Handle	Followers
1	@TylerGellasch	1,258	26	@MomentumCapital	1,298
2	@AndrewMusbach	687	27	@jasonjhamilton_	466
3	@Matt_Trogdon	856	28	@NyleBayer	1,619
4	@joeziemer	3,929	29	@djamesarmstrong	720
5	@itsryne_notryan	251	30	@Sean_YCharts	523
6	@WealthKeel	583	31	@Julian_Schubach	2,421
7	@uruY	130	32	@RIABiz	13,703
8	@IDFinancial	570	33	@KeithAkre	1,658
9	@startupofme	1,140	34	@MichaelKitces	56,289
10	@JustinSibears	548	35	@drewzaro	180
11	@DrewVoros	1,155	36	@myersbradley	80
12	@RandallTBruns	222	37	@BowtieBlake	3,995

13	@MQTrading	415	38	@shermanwealth	3,083
14	@slhzdh	3,239	39	@Alpholio	138
15	@jimpavia	6,989	40	@bobcareyfta	4,224
16	@VictorGaxiola	11,050	41	@NexusStrategy	5,331
17	@FinancialUmpire	1,715	42	@Perth_Tolle	3,697
18	@_Papa_T	240	43	@BullOakCapital	641
19	@BrianHartPR	42,259	44	@beyondfinances	4,483
20	@patrickwhannon	607	45	@Paul_Courtney	727
21	@brosen23	844	46	@prof_mcarvalho	604
22	@MikeBetzCFP	305	47	@mikejohns_	1,221
23	@bdkoepke	427	48	@danielcrosby	23,602
24	@callieabost	7,807	49	@FinTechie	14,175
25	@DonStClairJr	919	50	@JohnWaggoner	13,079

Portformer™ Top Influencers by #FinTwit Subcommunities

\$Tickers

Bring the facts and talk in \$ETF tickers to keep up with these individuals

Top Influencer: **@EricBalchunas**



<https://twitter.com/portformer/lists/tickers-top-influencers>

#	Twitter Handle	#	Twitter Handle	#	Twitter Handle
2	@choffstein	35	@MarAzul_90	68	@mikeharrisNY
3	@BrentBeshore	36	@alphaarchitect	69	@eboroian
4	@EconomPic	37	@philbak1	70	@AdamSinger
5	@GestaltU	38	@DavidSchawel	71	@ratchmor
6	@NateGeraci	39	@MstarETFUS	72	@WallStCynic
7	@millerak42	40	@ErikSTownsend	73	@AshleyElisaG
8	@LukeGromen	41	@BillBrewsterSCG	74	@aRishisays
9	@IlariLehti	42	@morganhousel	75	@Nonrelatedsense
10	@breakingthemark	43	@biancoresearch	76	@DaveNadig
11	@lhamtil	44	@michaelbkrause	77	@iv_technicals
12	@ToddCFRA	45	@jimiurio	78	@trader8CTA
13	@ReformedBroker	46	@allstarcharts	79	@bradloncar
14	@darjohn25	47	@chigrl	80	@JSiegel88
15	@bennpeifert	48	@oddballstocks	81	@nikir1
16	@dynamicvol	49	@SqueezeMetrics	82	@JBierne
17	@MebFaber	50	@AdamB1438	83	@cjenscook
18	@demonetizedblog	51	@justinisreal	84	@mark_dow
19	@wesbury	52	@SantiagoAuFund	85	@DeepThroatIPO

20	@IntrinsicInv	53	@MoatsLikeKodak	86	@wjrus84
21	@patrick_oshag	54	@CioEnd	87	@MLPguy
22	@CapitalObserver	55	@bondstrategist	88	@nglinsman
23	@svrnco	56	@LawrenceLeopard	89	@KYRRadio
24	@CliffordAsness	57	@GS_CapSF	90	@modestproposal1
25	@michaelbatnick	58	@daniel_egan	91	@jposhaughnessy
26	@ROIChristie	59	@ValueStockGeek	92	@Copernicus2013
27	@cullenroche	60	@RaphaelKahan	93	@MonetaryWonk
28	@PythiaR	61	@GauravSaroliya	94	@TN
29	@WayneHimelsein	62	@LynAldenContact	95	@NickatFP
30	@RampCapitalLLC	63	@npidoney	96	@KoyfinCharts
31	@awealthofcs	64	@profplum99	97	@traderstewie
32	@SuperMugatu	65	@ToddWenning	98	@schaudenfraud
33	@jmllubber	66	@Bringer_O_Rain	99	@PlanMaestro
34	@LibertyRPF	67	@EnergyMatters3	100	@VolatilityWiz

16	@EricHolthaus	49	@eroston	82	@notreallyjcm
17	@economeager	50	@ShellenbergerMD	83	@annasproul
18	@SHamiltonian	51	@mch_tweets	84	@dclingi
19	@ggreeneva	52	@willwilkinson	85	@gzervas
20	@jadler1969	53	@jswatz	86	@IBJIYONGI
21	@Moshe_Hoffman	54	@bethsawin	87	@MuseZack
22	@GlobalEcoGuy	55	@Undercoverhist	88	@epicciuto
23	@ModeledBehavior	56	@pareene	89	@Lubchansky
24	@econjared	57	@Wertwhile	90	@JodyShenn
25	@MattZeitlin	58	@mattdpearce	91	@jon_m_rob
26	@nataliemj10	59	@BGrueskin	92	@deaneckles
27	@transscribe	60	@barryfriedman1	93	@tomscocca
28	@NKAeding	61	@biggsag	94	@KevinMKruse
29	@Susan_Hennessey	62	@databyler	95	@ryanbeckwith
30	@IvanWerning	63	@jduffyrice	96	@KendraWrites
31	@JedKolko	64	@libbycwatson	97	@happifydesign
32	@scottlincicome	65	@triofrancos	98	@NathanKalmoe
33	@iSmashFizzle	66	@dannagal	99	@ProfKentBarnett
34	@julia_azari	67	@jbouie	100	@john_sipher

Portformer™ Top Influencers by #FinTwit Subcommunities

#FinTech

Product people and data nerds collide (our kind of people)

Top Influencer: **@lpolovets**

<https://twitter.com/portformer/lists/fintech-top-influencers>



#	Twitter Handle	#	Twitter Handle	#	Twitter Handle
2	@arampell	35	@tanayj	68	@abarrallen
3	@NewsyNick	36	@MBGilroy	69	@julien
4	@zck	37	@nbashaw	70	@theSamParr
5	@Joshmedia	38	@ljin18	71	@MichaelBabich
6	@bryce	39	@awilkinson	72	@sheeraf
7	@CaseyNewton	40	@zachcoelius	73	@NickPinkston
8	@dhaber	41	@waldojaquith	74	@fmbutt
9	@Austen	42	@eugenewei	75	@eringriffith
10	@stevesi	43	@nwilliams030	76	@ballmatthew
11	@bgurley	44	@EricFriedman	77	@dauber
12	@datarade	45	@kevingibbon	78	@buggeroaf
13	@alex	46	@mat	79	@jasonlk
14	@nelson	47	@cburniske	80	@gaberivera
15	@TurnerNovak	48	@dopetard	81	@waxpancake
16	@tonysheng	49	@epaley	82	@chrisfralic
17	@johnolilly	50	@thogge	83	@mikekarnj
18	@kerrymflynn	51	@jalter	84	@jasoncrawford
19	@davidu	52	@aexm	85	@MikeDuda

20	@maiab	53	@mengxilu	86	@ellenhuet
21	@paulg	54	@eladgil	87	@brooke
22	@pitdesi	55	@jeremysliew	88	@jwegener
23	@thebitsian	56	@aunder	89	@TZhongg
24	@antoniogm	57	@atShruti	90	@adam_keesling
25	@delitzer	58	@sampullara	91	@mathowie
26	@sachinrekhi	59	@Besvinick	92	@sethbannon
27	@Alex_Danco	60	@libovness	93	@YasminRazavi
28	@mcwm	61	@WillOremus	94	@ScottLucas86
29	@MichaelCarusi	62	@ceonyc	95	@annapickard
30	@mhdempsey	63	@mgsiegler	96	@EzraMoGee
31	@zebulgar	64	@Bernstein	97	@DavidSpinks
32	@joshu	65	@msuster	98	@rklau
33	@sarahtavel	66	@brianmwang	99	@zackkanter
34	@rrhoover	67	@karanortman	100	@BrennerSpear

20	@RetireMeASAP	53	@AaronKlein	86	@brandonlmoss
21	@ServoWealth	54	@rachelgetsindy	87	@scott_r_frank
22	@danielle_fava	55	@jamesacoxiii	88	@nittiaj
23	@TR401	56	@Darla_Mercado	89	@KateHealy_TDA
24	@HJudeBoudreaux	57	@DefineFinacial	90	@JillMalandrino
25	@RIABiz	58	@benefitsgirl	91	@vishdhawan
26	@advicentcoo	59	@pat_herrington_	92	@carleygarner
27	@ryanfkelly83	60	@SamanthaTwenty	93	@FeeOnlyIndy
28	@GrahamMillerCFP	61	@CoachArp40	94	@Think_Allison
29	@Roger_whitney	62	@RedtailCRM	95	@LKirchenbauer
30	@SalenticaDavel	63	@JusAire	96	@clcortes85
31	@jdbeaumont	64	@craigiskowitz	97	@DustinDuBose
32	@noneal510	65	@RPSeawright	98	@anotherof3
33	@BreannaReish	66	@Brad_Johnson	99	@IntegWealthNick
34	@BowtieBlake	67	@tinacpowell	100	@ycharts

19	@CryptoHornHairs	52	@ColeGarnerBTC	85	@BitBitCrypto
20	@CryptoMessiah	53	@KennethBosak	86	@JeremyRubin
21	@CryptoCoyote	54	@needacoin	87	@ORGANICASTRO NA1
22	@SmartContracter	55	@derose	88	@bitcoin_dad
23	@trader1sz	56	@DigitalLawrence	89	@GabrielNergaard
24	@Crypto_Boy1	57	@Sicarious_	90	@WhiteRabbitBTC
25	@Melt_Dem	58	@l3l2ucelee	91	@moonshilla
26	@SwadeHD	59	@888Velvet	92	@CryptoShadowOff
27	@lopp	60	@eiaine	93	@TheCryptoCactus
28	@ACXtrades	61	@PeterMcCormack	94	@devchart
29	@Tradermayne	62	@real_vijay	95	@chrycrypto
30	@zackvoell	63	@mindandtrading	96	@AkadoSang
31	@HammerToe	64	@KoroushAK	97	@MartianCrypto
32	@cryptomocho	65	@CryptOwenWilson	98	@TheCryptoBubble
33	@bergealex4	66	@WhiteWolfTrader	99	@NSKinsella
34	@roncaruthers	67	@Anbessa100	100	@FAmericanSpirit

Portformer™ Top Influencers by #FinTwit Subcommunities

\$TSLA

Where @Reddit and #FinTwit shout at each other.

Top Influencer: **@elonmusk**



<https://twitter.com/portformer/lists/tsla-top-influencers>

#	Twitter Handle	#	Twitter Handle	#	Twitter Handle
2	@Tesla	35	@jamescharles	68	@gmbankrupt
3	@MyTsla	36	@bonnienorman	69	@ReedSAIbers
4	@BradMunchen	37	@TheZiz74	70	@Rivian
5	@DeanSheikh1	38	@stephenpallotta	71	@ShannanSiemens
6	@KawasakiKR11	39	@TeslaForLife	72	@amazonmusic
7	@glenntongue	40	@MFrunker	73	@PrimeVideo
8	@katerogers	41	@soundanswer	74	@RyanBethencourt
9	@konrad_bilinski	42	@AT61_AUE	75	@TeslaOwnersSK
10	@28delayslater	43	@Polixenes13	76	@OttoBerkes
11	@mattiebbb	44	@dennis_p	77	@nichegamer
12	@BarkMSmeagol	45	@ShortingIsFun	78	@GeorgeDWatt
13	@ElonBachman	46	@tedstein	79	@peterschack
14	@BillGriffeth	47	@montana_skeptic	80	@grobichaux
15	@justpaulinelol	48	@SpacePadreIsle	81	@mydoghasagun
16	@CovfefeCapital	49	@ElectricJen	82	@nola9
17	@GrainSurgeon	50	@ValueDissenter	83	@BomsteinRick
18	@PPathole	51	@danahull	84	@John_Gardi
19	@Jonathankrier1	52	@jgrano305	85	@entrpz

20	@mithunoorath	53	@tesla_raj	86	@tesla_addicted
21	@BonaireVolt	54	@JoelSapp	87	@ray4tesla
22	@PollsTesla	55	@TeslaOwnersofMA	88	@TheHoff525
23	@WilfredFrost	56	@Seth_Horwitz	89	@TweeterTweaker
24	@Teslatunity	57	@rocket_jenross	90	@RyanDoherty47
25	@Model3Owners	58	@AfMusk	91	@GregKable
26	@cfischer6	59	@MikeFlo46795160	92	@torybruno
27	@OGPantherLilly	60	@Marshmall0wpeep	93	@JTSEO9
28	@Paul91701736	61	@contessabrewer	94	@ByeonChansoo
29	@passthebeano	62	@megtirrell	95	@DrvrBby
30	@lyle_lmilton	63	@SandyCannold	96	@NASASpaceflight
31	@HelperTesla	64	@teslamodel3fan	97	@yanquetino
32	@brodieferguson	65	@davidmarchorn	98	@thesheetztweetz
33	@ko_strad	66	@gwestr	99	@anonyx10
34	@kimpaquette	67	@vincent13031925	100	@rhensing