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Signals, Not Noise:
Bloomberg News, AI and Feeds

Quant Webinar Series
Thursday 16 July 2020

Agenda

1. **Introduction**

2. **News Built for Financial Markets**

3. **Automated News & Market Signals**

4. **Event Driven Feeds**

5. **Q&A**

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Speakers

Andrea Mandrelli
EMEA Head of Quant and
Systematic Data Sales
Specialist
Bloomberg L.P.

Daniel Guest
EMEA News Product Specialist
Bloomberg L.P.

Ken Kohn
Core Product News, News
Automation
Bloomberg L.P.

Ali Mohsin
Head of Product, Event-Driven Feeds
Bloomberg L.P.

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Bloomberg: News Built for Financial Markets

News Aggregation, Sentiment and Technology

Daniel Guest, EMEA News Product Specialist

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Bloomberg News

- **Over 10k stories a day**
- **Journalist & Automated**
- **Economics, Government, Finance, Company News & Global Markets**
- **Strong track record in breaking news that matters to markets.**
  - Examples of our track record on NI INFLUENTIA
  - Biggest scoops: NI BNSCOOP
- **Capturing breaking news from Social Media a strength area.**
  - NI VELOCITY

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A News Aggregator

- **Over 170k sources on Terminal**
- **Premium Global Sources: Bloomberg, Dow Jones, WSJ, NYT, Associated Press.**
- **Premium Local Sources: Telegraph, DPA, Corriere della Sera, Le Figaro, FaZ, AFR…**
- **Web content, company websites, press release and exchange wires, blogs.**
- **Social media posts (Twitter, Facebook, Weibo, Stocktwits)**
- **Content in 40 languages.**

Search News | Actions ▾ | Custom Searches | Translate ▾ | Key Themes   Page 1 | News Feed
‹What do you want news on?›   Sources | All Dates | All ▾ | Time
AI News Importance   Lower ▬▬▬▬▬▬ Higher
Top Ranked News | More »

1)	Stocks Slide From 1-Month High on Economy Jitters: Markets Wrap	BN	10:45
2)	Novavax Covid Vaccine Gets $1.6 Billion in U.S. Funding (1)	BN	11:22
3)	U.S. Eco Brief: Alt-Indicators Show Europe Leads, U.S. Lags	BBF	11:00

Time Ordered News

488)	Museum: 'Dukes of Hazzard' car with Confederate flag to stay	PTI	11:26
487)	GUIDANCE: Credit Agricole Assurances EU1B 10Y Tier 2 MS+220/225	BFW	11:26
482)	U.S. LEVLOANS CALENDAR: No Bank Meetings Scheduled	BFW	11:26
476)	LEVERAGED LOAN MOVERS: SP Gains, AMC Drops	BFW	11:26
4)	РБК: В РСО-Алания при проектировании корпусов тубдиспансера похитили	NS5	11:25
5)	*EUROSTOXX 50 RUTSCHT UNTER 3300 PUNKTE=	APA	11:25
6)	WAZ: Neheim: Brutale Attacke nach Hinweis auf Maskenpflicht	WAZ	11:25
7)	Kompas: Tolak Penggusuran, Warga Tepi Sungai di Samarinda Blokade Jalan	NS6	11:25
8)	Kompas: Akibat Konten Prank Ditangkap Polisi, Raffi Ahmad Kesulitan Dapat Vis…	NS6	11:25
9)	Kompas: Sinopsis Dari Jendela SMP Episode 13-14, Joko dan Wulan Balikan?	NS6	11:25
10)	Argentina Files Latest Debt Restructuring Offer With SEC	BFW	11:25
11)	DGP - DB Gold Double Long ETN	NDR	11:25
12)	DGAZ - VelocityShares Daily 3x Inverse Natural Gas ETN	NDR	11:25
13)	*中集安瑞科 <3899> 截至2020年6月30日止月份之股份發行人的證券變動月報表	IIC	11:25
14)	Aktien Check: UBS belässt Lloyds auf 'Buy' - Ziel 45 Pence	NS5	11:25

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Tagging

- **Content tagged to tickers, people and topic codes.**

- **Assigned coding by Journalists and machine-derived tagging rules in multiple languages.**

- **Relevancy scoring.**

Uber to Buy Postmates for $2.65 Billion to Expand Delivery (2)					
10) Assigned	11) Derived	12) Anti	13) Story Text	17) Cluster	20) Translations

Ticker (4)	Relevance	Description	Topic (114)	Relevance	Description
0132690Z	(65) (65)	Postmates Inc	AGRKEY	(0) (100)	Key Agriculture News
0881510D	(40) (40)	DoorDash Inc	ALLTOP	(100) (100)	Stories From TOP Men
TKWY@NA	(40) (40)	Just Eat Takeaway.com	ALLWWCUR	(100) (100)	Current Stories on TO
UBER	(100) (100)	Uber Technologies Inc	AMFEAT	(100) (100)	Americas Featured St
			ANTITRUST	(72) (72)	Antitrust
			ASFEAT	(100) (100)	Asia Featured Stories

Person (11)	Relevance	Description			
16698713	(70) (70)	Pierre-Dimitri Gore-C	BBPROFILE	(0) (100)	Bloomberg Client Prof
17006844	(70) (70)	Emily Chang	BGOVBILLGO	(100) (100)	BGOV - BILL<GO> New
1707705	(70) (70)	Molly Schuetz	BGOVCODES	(0) (100)	BGOV Codes
1707928	(70) (70)	Tom Giles	BIZNEWS	(100) (100)	Bus, Eco, Govt News
17565229	(70) (70)	Mark Milian	BNALL	(100) (100)	Bloomberg BN Copy
			BONDWIRES	(100) (100)	Eligible Wires for Bon

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Translation Technology

- **Google translate technology applied on headline and story level.**
- **NY analyst covering Chinese stocks, no longer at a disadvantage!**

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News Analytics

- **News Reader Activity**
- **News and Twitter Volume**
- **News and Twitter Sentiment**
- **TREN<GO>**

	Security	Δ Act.	GN	Δ Price	Δ AVAT	News Summary
1)	Bayer AG			-5.66%	+219.23%	Bayer Shares Fall as Judge Settlement Deal
2)	Cooperatieve Raboba…				0.00%	Food Systems More Sustainable
3)	Sodexo SA			-3.41%	+134.67%	Sodexo Warns of Deeper Fall in Sales
4)	EDP Renovaveis SA			+4.94%	+258.31%	EDP, EDP Renovaveis Shares Suspended From Trading
5)	EDP - Energias de Po…			+3.59%	+15.82%	EDP Suspends CEOs Amid Corruption Probe
6)	Whitbread PLC			-5.70%	-11.48%	Premier Inn Owner Whitbread Sees Tourist Demand
7)	HeidelbergCement AG			+5.37%	+15.28%	Revaluation of Asset Portfolio
8)	Banco Santander SA			-2.85%	-21.83%	Antonio Horta-Osorio Views Departure Many
9)	Deutsche Bank AG			0.00%	-24.59%	Google, Deutsche Bank Agree to Cloud Partnership
10)	Banco Bilbao Vizcaya…			-2.21%	-25.19%	Clifford Chance Advises Development Bank
11)	AXA SA			-4.64%	+7.10%	AXA Mansard Collaborate Insurance
12)	JD Sports Fashion PLC			-1.63%	+46.96%	JD Sports Fashion FY 2020 Pretax Profit Rose
13)	Kingspan Group PLC			+3.23%	+191.73%	Watch U.K. Building Materials Stocks
14)	Credit Suisse Group …			-1.87%	-3.69%	Credit Suisse Announces Coupon Amount on Index ETN
15)	boohoo Group PLC			-5.93%	+17.76%	A Leicester Factory Apparently Making Items for It
16)	Roche Holding AG			-0.81%	-2.42%	Genentech Loses Appeals Court Ruling
17)	Commerzbank AG			+2.49%	+18.73%	Eurozone Commerzbank Surged After Announcing
18)	Cellnex Telecom SA			+0.39%	-53.09%	Cellnex Considering Raising $3.4 Billion Capital
19)	Nokia Oyj			-4.17%	+23.41%	Nokia to Deploy Open RAN Interfaces
20)	Eni SpA			-0.07%	-4.80%	Eni Expects EUR3.5 Billion of Impairments

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News & Social Sentiment

- **Sentiment Scoring**
- **Sentiment/Activity Analytics:**
  - GT<GO>
  - GN<GO>
- **Social Media Alerting**

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Bloomberg Automated Intelligence

Automated News and Market Signals

Ken Kohn, Core Product News - News Automation

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The Story Behind Wirecard

- **April 28 – KPMG can't conduct full audit, stock drops 26%**
- **In previous days, Bloomberg automated stories showed:**
  - 4 hedge funds boosted short positions
  - Options volume spiked 3 times
  - News "heat" jumped
- **June 18 - $2.1 billion missing, shares drop 62%**
- **In days before Bloomberg automated stories showed:**
  - 3 hedge funds boosted short positions
  - Social velocity jumped
  - Implied volatility spiked

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The Story Behind the Story

- **News is hiding in plain sight**

- **Challenge - Use technology to expose news in computer-driven stories that show clients value in our data and applications**

- **500+ types of automated stories**

- **Anecdotal Evidence of signal - 100+ examples**

- **Investigate – Is it signal, or just noise?**

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Investigating Predictive Power

- **Hypothesis: Automated stories publishing before big price moves or corporate events is more than coincidence**

- **Test: Compare random publication of 12 automated stories with actual occurrences**

- **Universe: 5,000 U.S. companies from May 2018 to January 2020**

- **Best predictors for price movement: News heat and short interest**

- **Best predictors for M&A: credit-default swaps + social velocity alerts + stock volume**
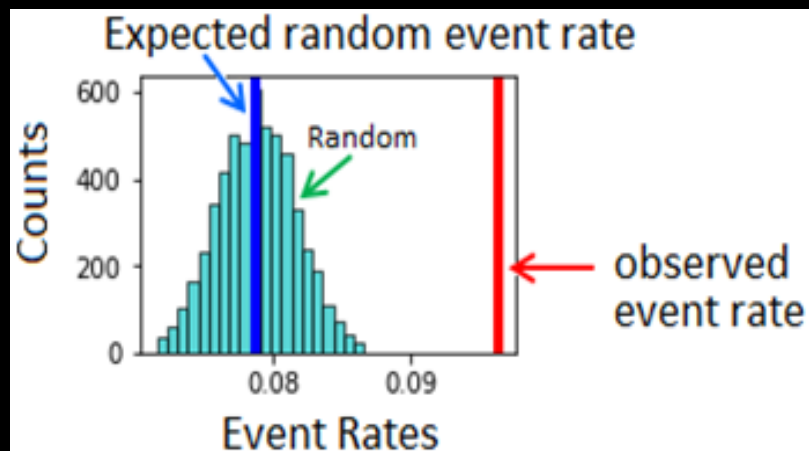
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Client: "I want Everything"
Bloomberg: "You cannot handle everything"

1)	NYC Plans to Open Public Schools in Sept., De Blasio Says (1)	BN	17:28
2)	Deutsche Bank Weighing Acquisition of Disgraced Wirecard's Bank	Ⓑ BN	17:40
3)	Stocks Climb on Jobs Surprise Amid Virus Jitters: Markets Wrap	BN	16:56

Time Ordered News

362)	The Gallery Where Stevie Wonder Was a Regular	NYT	17:44
360)	ｱﾒｰﾊﾞﾆｭｰｽ: タモリ、杏のかわいい自慢話をほめちぎるも「自分をほめたいと思った	NS4	17:44
358)	ｱﾒｰﾊﾞﾆｭｰｽ: TVアニメ「怪物事変」2021年放送決定！ 小野大輔、花守ゆみり、花澤...	NS4	17:44
356)	الأهرام: الكويت: توفير 75 مليون دينار لشراء لقاح لفيروس كورونا المستجد	NS8	17:44
354)	Citybiz: EyeLock Announces Global Partnership with Integral Technology Solutio...	NS1	17:44
352)	HC directs Maharashtra to conduct random Covid-19 tests in	FEX	17:44
350)	Health Coronavirus Latest	PAN	17:44
348)	NIO Inc. Reports Higher Deliveries, ADRs Trade Higher on NYSE	DJ	17:44
346)	Contracts with India regarding fighter aircraft could be signed in near future - ...	IFX	17:43
344)	SID/Leichtathletik/Verband zahlt Strafe nicht: Russlands Leichtathleten vor Sta...	DJ	17:43
342)	CattleFax 6-State, Kansas/Panhandle Fed Steer Price - Jul 2	DJ	17:43
340)	COVID-19 travel advisory between Saskatchewan and northern Alberta lifted	CNP	17:43
338)	ABC News: Orlando Bloom talks powerful new movie role and his excitement on...	ABC	17:43
336)	Citybiz: Tapinator Releases Letter to Shareholders	NS1	17:43
334)	Süddeutsche Ztg: Corona-Ausbruch im Landkreis Starnberg:Landrat nimmt Cater...	SDZ	17:43

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Filters – Social media

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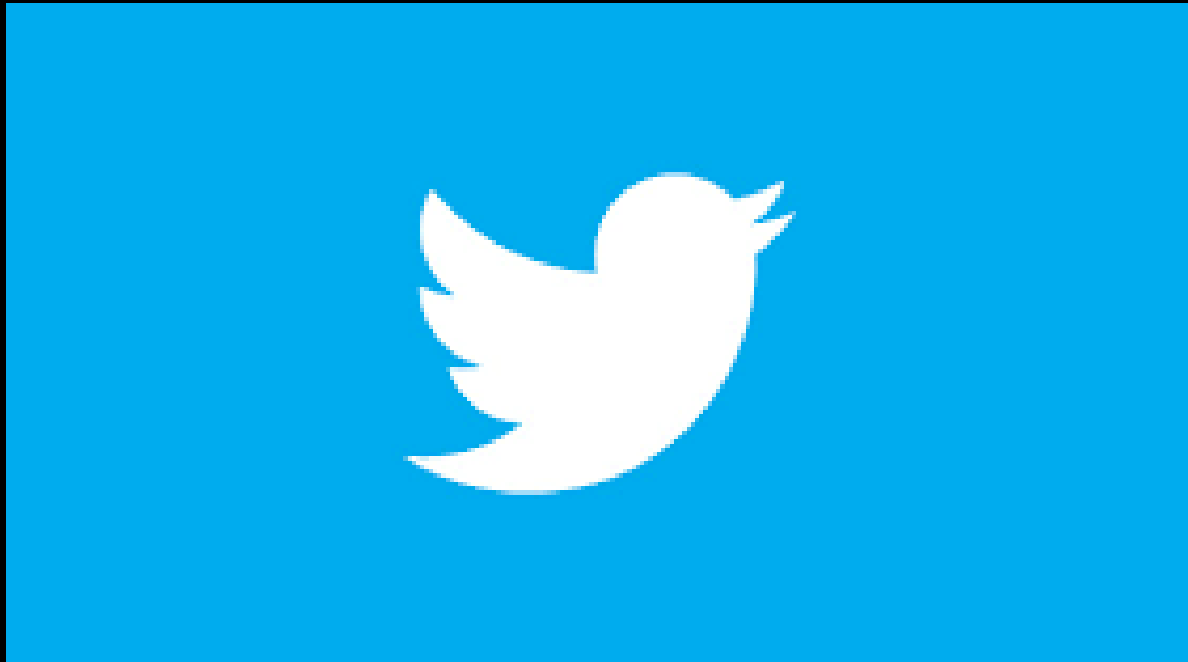
Filters – Social media

- **500 million Tweets a day**

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Filters – Social media

- **500,000 tweets are financially relevant**

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Filters – Social media

- **50 Tweets a day matter to markets**

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Filters – Social media

- **Five tweets a week break big news**

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Analytics – Beyond Price & Volume

- **Trend Study Covid 19 / Racial Equality**

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Summarisation

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5 Things

1. Data

2. Computer Power

3. Platform

4. Customer Focus

5. Domain Expertise

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Event Driven Feeds:
How quants can use news in event and factor based trading

Ali Mohsin, Head of Product, Event Driven Feeds

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Real Time Textual News

Bloomberg News Feed

- Breaking news generated by 130+ Bloomberg news bureaus and 2,700 journalists and analysts cover all asset classes around the globe

- Supplemented by global web scrapes and licensed third-party news

- Headlines or full news stories, enriched with metadata (tickers, topics, & people)

- Multicast delivery in NY4 available for lowest latency access

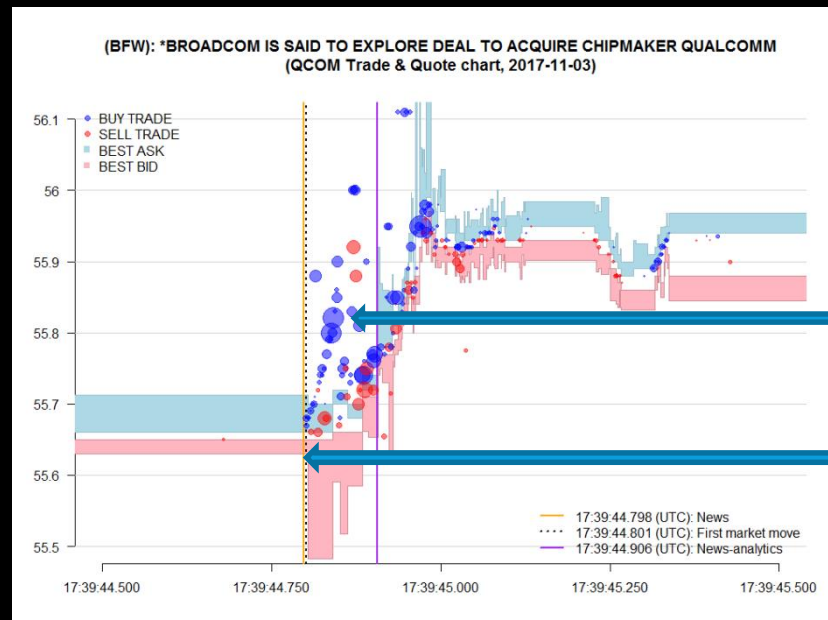- Multiple updates to stories as new information is added to stories

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Real Time Textual News - Headlines

SUID	OYURQ86K50XU
Headline	*BROADCOM IS SAID TO EXPLORE DEAL TO ACQUIRE CHIPMAKER QUALCOMM
Assigned Tickers	QCOM, AVGO
Assigned Topic Codes*	ACEXCLUDE, HOT, SEM, HEADS, FIRSTWORD, US, BFWEQ, RIF, TEC, BIZNEWS, TOPBFW, TMT, MARKETS, BNSCOOP, CA, COS, USWE, BFW, NORTHAM, MSCINAMER, GLOBALMACR, MSCIWORLD, ALLHOT, BFWUS, TEL, TLS, WRLS, FINNEWS, TOP, MNASCOOP

* Feed messages in XML format

- **SUID: Story Unique ID, provided on the feed and can be verified on Bloomberg Terminal via <NSN SUID GO>**

- **Story metadata produced by Human + NLP, leveraging Bloomberg's taxonomy:**
  - Assigned metadata: assigned by news reporters/editors
  - Derived metadata: enriched by machine learning models (Named Entity Recognition/Disambiguation, Topic Classification, etc.)
  - Best-in-class taxonomy curated and maintained by dedicated Global Data experts and driven by content generators

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Real Time Textual News - Headlines

(BFW): *BROADCOM IS SAID TO EXPLORE DEAL TO ACQUIRE CHIPMAKER QUALCOMM
(QCOM Trade & Quote chart, 2017-11-03)

Market digest and react to news (2)

News release (1)

Common use cases:

- Low latency headline driven trading
- Electronic market making in cash equity and equity options
- Algorithmic execution
- Central Risk Book
- Market risk & compliance

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Q&A Session

We look forward to welcoming you to the next webinar in this series:

Trading news sentiment themes with pICA

Thursday, 23 July 2020 | 4:00pm BST / 11:00am EDT

Michael Ang, Quant Research, CTO Office
Ivailo Dimov, Quant Research, CTO Office
Daniel Lam, Quant Research, CTO Office

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