

The Bloomberg logo is displayed in white text on a dark background. It is positioned within a vertical rectangular area on the left side of the slide, which features a subtle grid pattern.

Bloomberg

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**

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.



Bloomberg: News Built for Financial Markets

News Aggregation, Sentiment and Technology

Daniel Guest, EMEA News Product Specialist

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



Bloomberg

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 PCO-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

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.con	ALLWWCUR	(100) (100)	Current Stories on TO
UBER	(100) (100)	Uber Technologies Inc	AMFEAT	(100) (100)	Americas Featured Sto
			ANTITRUST	(72) (72)	Antitrust
			ASFEAT	(100) (100)	Asia Featured Stories
			BBPROFILE	(0) (100)	Bloomberg Client Prof
			BGOVBILLGO	(100) (100)	BGOV - BILL<GO> New
			BGOVCODES	(0) (100)	BGOV Codes
			BIZNEWS	(100) (100)	Bus, Eco, Govt News
			BNALL	(100) (100)	Bloomberg BN Copy
			BONDWIRES	(100) (100)	Eligible Wires for Bon
Person (11)	Relevance	Description			
16698713	(70) (70)	Pierre-Dimitri Gore-C			
17006844	(70) (70)	Emily Chang			
1707705	(70) (70)	Molly Schuetz			
1707928	(70) (70)	Tom Giles			
17565229	(70) (70)	Mark Milian			

Translation Technology

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



The screenshot shows the Bloomberg News interface. The top navigation bar includes tabs for 'Search News', 'Actions', 'Custom Searches', 'Translate' (circled in red), and 'Key Themes'. Below the navigation bar, there is a search bar with 'Uber Technologies Inc' entered. The main content area displays a list of 20 news items, each with a rank number, headline, source, and time. The headlines are in English, but some include Chinese text, demonstrating the use of translation technology.

Rank	Headline	Source	Time
1)	Uber to Buy Postmates As Ride-Hailing Suffers	NYT	08:01
2)	Checkout: Uber To Buy Postmates In \$2.65bn Stock Deal	NS5	07:47
3)	CNET.fr: Uber accélère sur la livraison de nourriture et engloutit Postmates pou...	BLG	07:34
4)	Uber Buys Food-Delivery Rival -- WSJ	NEN	07:32
5)	Uber Buys Food-Delivery Rival -- WSJ	DJ	07:32
6)	UBER: Positive on Postmates acquisition	ATL	07:28
7)	JMP Morning Note 07072020	JMP	07:25
8)	Zonebourse: EN DIRECT DES MARCHES : Soitec, Sodexo, Microsoft, Uber, Air Liqui...	FM5	07:13
9)	Uber Buys Food-Delivery Rival --- Firm's \$2.65 billion deal for Postmates ex...	WSJ	07:12
10)	Zawya: Uber bets on food delivery and buys Postmates for \$2.65bln as ride-hai...	NS8	07:01
11)	Uber Acquires Postmates: An Accelerating & Consolidating Market	JMP	07:00
12)	搜狐新闻: Uber确认以26.5亿美元收购Postmates	NS6	06:55
13)	US-NACHBÖRSE/Tesla nachbörslich weiter auf Rekordkurs	DJ	06:34
14)	新浪台灣: 一邊大幅裁員一邊巨額收購: Uber吹響外賣市場衝鋒號	NS6	06:31
15)	La Stampa: Uber, 2 miliardi per portare il cibo nelle case	NS5	06:15
16)	新浪新闻中国: 一边大幅裁员一边巨额收购: Uber吹响外卖市场冲锋号	NS6	06:10
17)	Les Echos: LDH contre Uber : stratégie contentieuse et réglementaire en matièr...	NS5	06:04
18)	Uber Technologies Inc. (UBER): Announces Postmates acquisition and Q2 trends	GSR	05:57
19)	Morningstar Acquisition of Postmates to Strengthen Uber's Presence in Online...	MSV	05:49
20)	搜狐新闻: Uber Eats将收购Postmates 提升餐饮外卖竞争力	NS6	05:46

News Analytics

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

Set Alert		Settings ▾			News Trends
Companies	Security List	Topics	Region Europe ▾	Trend Period 8 Hours ▾	
News Reader Activity		News Sentiment	Twitter Sentiment	News Volume	Twitter Volume
Largest Increase		Largest Total			
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

News & Social Sentiment

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



Bloomberg Automated Intelligence

Automated News and Market Signals

Ken Kohn, Core Product News - News Automation

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

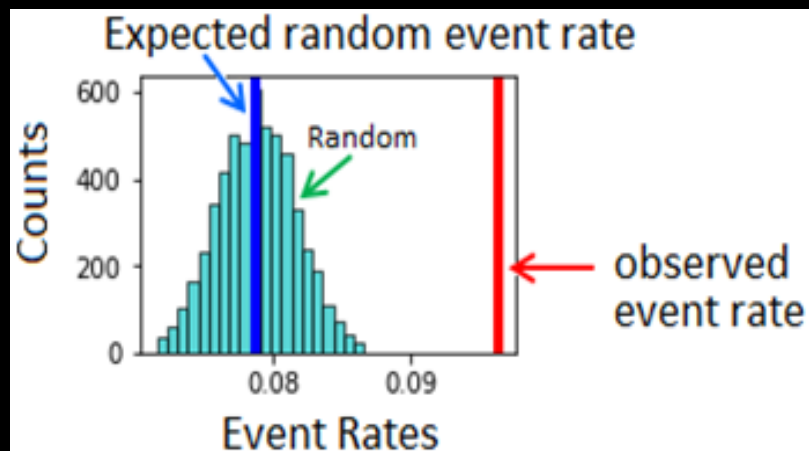


The Story Behind the Story

- 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?

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

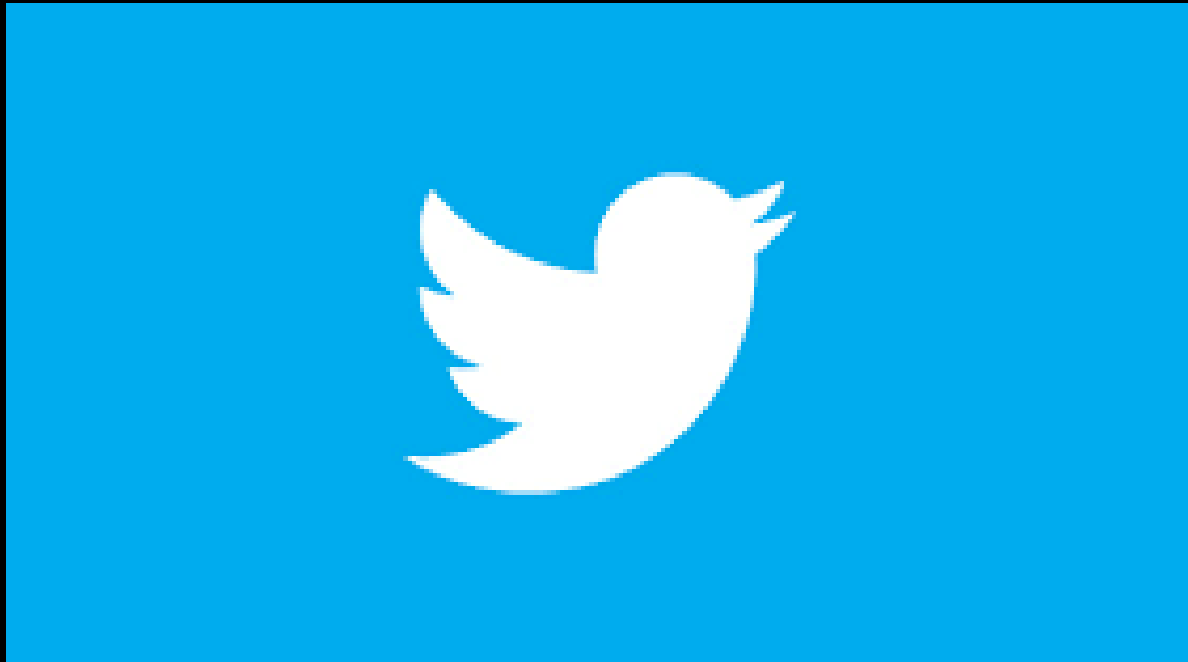


Client: “I want Everything”

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)	アメバ・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)	アメバ・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

Filters – Social media



Filters – Social media

- 500 million Tweets a day



Filters – Social media

- 500,000 tweets are financially relevant



Filters – Social media

- 50 Tweets a day matter to markets



Filters – Social media

- Five tweets a week break big news



Analytics – Beyond Price & Volume

- Trend Study Covid 19 / Racial Equality



Summarisation

Search News Actions Custom Searches Translate **Key Themes** Page 1 News Feed

Coronavirus x Sources All Dates Time

Top Ranked News | More » Top News Background & Opinion

- 1) Stocks Rally on Vaccine Hope and Economic Data: Markets Wrap BN 15:03
- 2) Emerging Markets Face Real Risk of Virus Second Wave: TOPLive BN 15:29
- 3) New York City Postpones Return of Indoor Dining, De Blasio Says BN 15:39

Time Ordered News

- 670) EMORY UNIVERSITY: Schultz Seeks Tuition Refunds Due to COVID-19 SUN 15:42
- 669) Forbes: Grads of Life BrandVoice: 5 Key Takeaways From HBS Seminar
- 664) 'Prepare for the worst': UK should prepare for worst-case scenario
- 4) U.K. Task Force Chair Relatively Optimistic About Virus
- 5) CNBC: Blocking middle seats on planes is a 'game-changer'
- 6) CNBC: Senate Democrats push to extend emergency powers
- 7) CNBC: Manufacturing bounces back stronger than expected
- 8) Cuomo tells Trump to 'put a mask on it' as virus spreads
- 9) Pfizer leaps more than 7% after releasing preliminary data
- 10) Arizona orders bars and gyms to close, joins states in shutdown
- 11) Zawya: UK retailer John Lewis says unlikely to survive
- 12) Zawya: France says Lebanon crisis "alarms" EU
- 13) Forbes: 5 Key Takeaways From HBS Seminar on Business Resilience
- 14) Engineering News: Insurers' rejection of COVID-19 claims
- 15) Yahoo! Finance: Stock market news live updates
- 16) Stocks open higher on Wall Street, adding to rally

Key News Themes

Coronavirus x Time Period 2 Days

India Approves Human Trials for Vaccine Candidate (214 of 77,606 stories) 📌 🔍

- 1) INOVIO Saw Positive Interim Phase 1 Data For COVID-19 Vaccine BFW 06/30
- 2) BioNTech and Pfizer's Covid-19 vaccine trial yields positive results FTI 14:19
- 3) Northeast Now: India's first COVID-19 vaccine gets approval for human trials NS6 06/30

Flu Virus Emerges in China With 'Pandemic' (172 of 77,606 stories) 📌 🔍

- 4) Swine Flu Infecting Humans Raises Fears of Pandemic Potential BN 06/30
- 5) Asharq Al-Awsat: WHO Sending Team to China to Investigate Origins of Coronavirus NS8 06/29
- 6) Olympian: Coronavirus herd immunity 'unlikely' if too many people refuse a vaccine, Fauci says NS1 06/29

Countries From Which Travel Into the EU Russia (133 of 77,606 stories) 📌 🔍

- 7) EU Reopens Its Borders to 14 Nations But Not to US Tourists APW 06/30
- 8) U.S. not on European Union's 'safe' list for pandemic travel, but Canada is: sources NPW 06/30
- 9) VOA News: EU Finalizing Virus 'Safe List,' US Unlikely to Make The Cut NS1 06/29

AMC Delays Reopening Theaters to Late July (72 of 77,606 stories) 📌 🔍

- 10) AMC Delays Theater Reopenings to July 30, When New Movies Arrive BN 06/29
- 11) Chicago Tribune: AMC Theatres delays reopening as COVID-19 spreads NS1 06/29
- 12) Devdiscourse: Broadway theaters to remain closed through early January 2021 NS6 06/29

5 Things

1. **Data**
2. **Computer Power**
3. **Platform**
4. **Customer Focus**
5. **Domain Expertise**

Event Driven Feeds:

How quants can use news in event and factor based trading

Ali Mohsin, Head of Product, Event Driven Feeds

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**

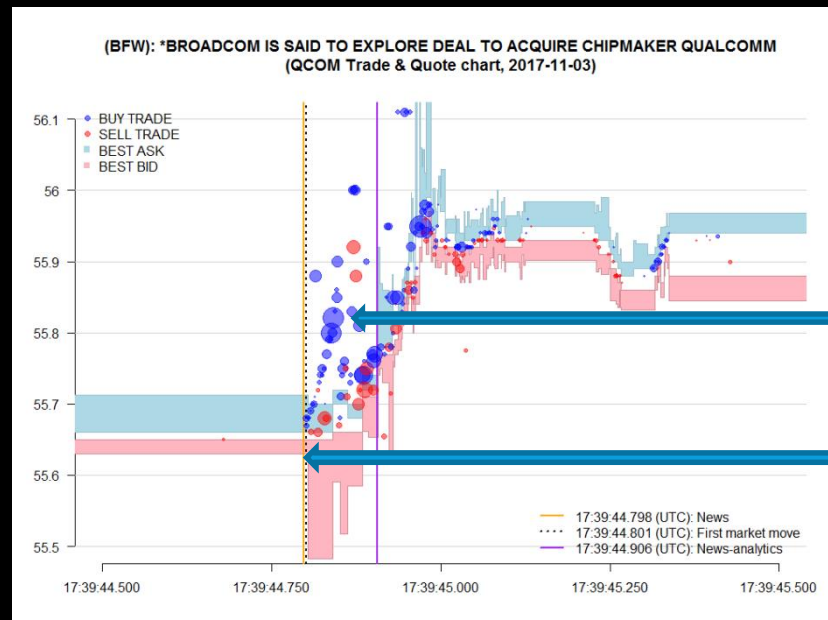
Real Time Textual News - Headlines

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

Real Time Textual News - Headlines



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

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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