ANALYZING THE CLICKSTREAM

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CLICKSTREAM DATASET

- The "browser history" of 50,000+ ~representative US households
- The households know their clickstream is collected
- Four months of 2007
- Multiple terabytes
- Limited demographics
- Anonymized (no usernames/passwords/account numbers) + NDA

CLICKSTREAM DATA FOR FINANCE

Sought quote on NSMG on Yahoo! Finance

household	time	date	link
1	8:55:20	5-Jan-07	http://streamerapi.finance.yahoo.com/streamer/1.0?s=NSMG.PK,USD=X&tt=1168007924&o=^DJI,^IXIC&marketid=us_market
1	8:55:34	5-Jan-07	http://my.yahoo.com/
1	8:57:14	5-Jan-07	https://BROKER.com/login
1	8:58:01	5-Jan-07	https://BROKER.com/home
1	8:58:16	5-Jan-07	https://BROKER.com/accounts/accountscombo
1	8:58:29	5-Jan-07	https://BROKER.com/alerts/alertinbox
1	8:58:50	5-Jan-07	https://BROKER.com/stocks/ownership/insiders.asp?symbol=ACAS
1	8:59:07	5-Jan-07	https://BROKER.com/portfolioview?portfolio=XXXXXXX&_formtargetortfoliolist&traxui=ac_combo
1	9:01:33	5-Jan-07	https://BROKER.com/invest/createentry?Symbol=ACAS&ordertype=2&numshares=100

Logged into brokerage, checked accounts and inbox

Researched ownership data on ACAS

household-session

Sold 100 shares of ACAS

Considered how this affected portfolio

IN PROGRESS

1. The Information Set of Online Investors

   How do investors do research and how does what they see relate to how they trade?

1. THE INFORMATION SET OF ONLINE INVESTORS

Total Research Time by Research Type

Research Category	Hours	# Households	# Permno's	Minutes spent normalized by	
				# Total HH	# Total Trades
NEC	299.8	320	352	42.03	6.64
analysts	20.5	115	434	2.88	0.45
charts-NEC	377.8	303	1,632	52.97	8.37
charts-dividends	6.2	25	91	0.87	0.14
charts-earnings	5.2	34	59	0.72	0.11
fundamentals-NEC	32.5	165	381	4.56	0.72
fundamentals-earnings	9.4	160	376	1.32	0.21
fundamentals-insiders	3.6	67	75	0.51	0.08
funds	10.8	86	56	1.51	0.24
messageboard	184.6	54	179	25.88	4.09
news	258.0	275	2,134	36.17	5.72
prices	567.9	349	1,817	79.61	12.58
reports	30.6	116	211	4.29	0.68
screener	27.9	184	265	3.92	0.62
snapshot	581.0	388	2,356	81.45	12.87
technical	2.7	63	111	0.37	0.06
watchlist	101.9	183	292	14.28	2.26
Total	2520.5	425	3518	353.34	55.85

I. THE INFORMATION SET OF ONLINE INVESTORS

Top Researched Tickers

Ticker	Current Name	# HH	Total hours	# Pages	Cap	Cap Rank
AAPL	APPLE INC	85	5.3	994	72.98	41
CSCO	CISCO SYSTEMS INC	84	5.2	885	165.97	13
MSFT	MICROSOFT CORP	83	6.4	933	291.94	3
SIRI	SIRIUS X M HOLDINGS INC	70	4.0	829	5.08	638
GE	GENERAL ELECTRIC CO	69	5.2	667	383.56	2
F	FORD MOTOR CO DEL	62	3.1	640	13.65	308
DELL	DELL INC	57	2.9	442	55.78	60
INTC	INTEL CORP	57	5.4	521	116.76	21
C	CITIGROUP INC	56	4.5	565	273.69	4
MO	ALTRIA GROUP INC	54	7.3	776	179.87	11
XOM	EXXON MOBIL CORP	53	3.2	394	446.94	1
T	A T T INC	53	6.1	646	137.38	16
GOOG	ALPHABET INC	51	4.4	710	104.84	26
LVLT	LEVEL 3 COMMUNICATIONS INC	50	19.1	1140	6.60	524
PFE	PFIZER INC	49	3.7	415	186.75	9
AMGN	AMGEN INC	46	4.0	986	79.65	37
HD	HOME DEPOT INC	46	2.7	443	81.96	36
GM	GENERAL MOTORS CORP	46	3.1	374	17.38	234

IN PROGRESS

1. The Information Set of Online Investors

    How do investors research and how does what they find impact how they trade?

2. The Effect of Research on Performance

    Does the type or amount of an investor's research affect performance?

3. Research Styles and Trading Styles

    Connecting research approaches (technical, fundamental) to trading behavior

4. Portfolio Formation in Reality

    Portfolios as cumulative outcomes of quick decisions and inertial positions