Exhaust Data: Credit Score 2.0

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13x Traffic Growth 2012 - 2017

- Growth
- Unstructured data
- Digital fingerprint

Exhaust data
What is Exhaust Data?

Exhaust data is the electronic trail of information you leave behind as you go about your day using mobile devices, credit cards, rewards cards, surveys and online activities. Data in the form of cookies, selections or preferences leaves a trail of preferences that is valuable.
Exhaust Data Part of Big Data Eco-System

**Data Collection**
- Our exhaust data is collected with or without our knowledge or permission

**Data Analysis**
- The data is sorted, analyzed and packaged

**Data Processing**
- The data is stored

**Data Sales**
- The data is then sold or used for the purpose to target customers or improve some business process

Walgreens sold $749M to pharma*

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* Digital Exhaust What Everyone Should Know About Big Data, Digitization, and Digitally Driven Innovation “Dale Neef”
Exhaust Data Collectors

- Credit rating companies - Experian, Equifax, TransUnion
- Digital Marketing Acxiom, Epsilon, Reed Elsevier, Datalogix, Rapleaf [Towerdata], Spokeo
- Information companies – Experian/Acxiom, Bloomberg, Dun & Bradstreet, Datalogix, Google
- Social media – Facebook, LinkedIn, Twitter, Alibaba, Yahoo, Groupon, Instagram, Digg, Reddit, and StumbleUpon
- Retailers – Walmart, Amazon, eBay, PayPal, Target, Starbucks
- Telecom - AT&T, Verizon, Comcast, and BT
- NSA and Department of Homeland Security

2013 Senate Staff Report for Rockefeller

Acxiom alone has “multi-sourced insight into approximately 700 million consumers worldwide,” and Datalogix asserts its data “includes almost every U.S. household.” Some of the companies maintain thousands of data points on individual consumers, with one providing the Committee a list of approximately 75,000 individual data elements that are in its system. Data collected by these companies includes detailed and personal information including data on consumers’ health and financial status.
Experian: Credit Rating Agency

- **Segment:** Business Services
  - Credit Services Consumer Services, Marketing Services & Decision Analytics.

- **Customers:**
  - Business & Consumer

- **Marketing Products**
  - Consumer 360, Hitwise, Simmons Connect

- **Revenue:** $4.8B FY14

- **Notes**
  - SW acquisitions since 2007 to expand Marketing services. I.e. “Hitwise”, “Virid Interatividade Digital Ltda”

- **Customer 360**
  - Profiles each of your customer segments with actionable demographic, behavioral, lifestyle and attitudinal data to drive smarter marketing strategies.

- **Hitwise®**
  - Measures millions of consumers’ online behavior on PCs, tablets and smartphones to deliver insight into consumer website usage and search behavior as well as online marketing performance.

- **Simmons® National Consumer Studies**
  - Annual survey of 30,000 consumers, measuring 8,000 brands and 700 psychographic questions with 60,000 elements in all. Understand key demographic groups, including Kids & Teens, LGBT, critical Hispanic ethnic groups and all major media behaviors covering television, online, mobile, print, radio, social media and more.

- **SimmonsLOCAL℠**
  - Reports nearly 60,000 consumer data elements, including media behaviors, brand preferences and attitudes down to the ZIP Code level across the country.

- **Simmons® Connect**
  - Cross-platform consumer profiling and media planning tool that reports consumer behavior and attitudes across 11 media platforms.
Acxiom: Digital Marketing

- **Segment: Marketing & Data Services**
  - Acxiom collects, analyzes, and parses customer and business information for clients, helping them to target advertising campaigns, score leads, and more.
  - Database over 700M consumers world wide

- **Customers:**
  - Financial services, insurance, information services, direct marketing, media, retail, consumer packaged goods, technology, automotive, healthcare, travel, and telecommunications industries, and the government sector

- **Marketing Products**
  - Personicx: Consumer Segmentation
  - AbiliTec: Customer matching & identify resolution
  - Audience Operating System (AOS) Device platform tracking

- **Revenue: $1.1B FY14**

- **Notes**
  - Aboutthedata.com [check your own database]
  - Biggest company you never heard of. *“FRONTLINE’s The Persuaders“*

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Sample List of Targeting Products Identifying Financially Vulnerable Populations

<table>
<thead>
<tr>
<th>Burdened by Debt: Singles</th>
<th>Struggling Elders: Singles</th>
<th>Meager Metro Means</th>
</tr>
</thead>
</table>
| Mid-Life Strugglers: Families | Retiring on Empty: Singles | “Very Elderly” 
| Resilient Renters | Tough Start: Young Single Parents | “Rolling the Dice” |
| Very Spartan | Living on Loans: Young Urban Single Parents | “Fragile Families” |
| X-tra Needy | Credit Crunched: City Families | “Small Town Shallow Pockets” |
| Zero Mobility | “Financial Challenges” | “Ethnic Second-City Strugglers” |
| Hard Times | “Credit Reliant” | “Rural and Barely Making It” |
| Enduring Hardships | “Rocky Road” |                    |
| Humble Beginnings | |                    |
Spokeo: People Search

- **Segment: People Search Platform for Individuals & Small Business**
  - Spokeo is a people search platform enabling users to reconnect with friends and families and discover information.
  - Aggregate online and offline data.

- **Customers**
  - Individuals & Small Business

- **Products**
  - Web based search

- **Revenue**
  - Private

- **Website**
  - www.spokeo.com
Findings

• Online and Offline data is being sold & merged to target market to consumers
• Existing big players creating detailed “profiles” to target consumers
• Consumer has limited visibility of online “profile”
  – No transparency
  – May be incorrect
• US Data regulation limited
  – Fair Credit Reporting Act ,FCRA, regulates collection of income, spending, credit activity
  – Non FCRA data not protected. I.e charitable giving, loyalty card data, etc...
  – Medical data is loosely protected
  – EU much stricter regulations “Right to be Forgotten”
Emerging Players

- TrustCloud – building personal “trust score” based on data exhaust. Company measures trustworthiness of the person in different context and provides universal score, card and badges which are relevant for specific online and sharing services.

- Kred, Klout, PeerIndex – measuring social influence based on data exhaust
  Companies analyzing social media traffic and building graph of connections and influencers.
TrustCloud

TrustCloud is a credit platform for Peer Marketplaces that measures virtuous behavior online to build a portable and contextual trust score you can use anywhere.
“Credit Score 2.0” - market opportunity

• There is a need in new “credit score” metrics in new “sharing” economy
• Classic credit score has limited application and often is not relevant in context of online / sharing services
• New credit score should be reliable, portable and relevant to online service and activities done by people (online lending, auctions, rentals, car sharing)
• Analyzing data exhaust allows to build new metrics (“credit score 2.0”) which satisfies above requirements
“Credit Score 2.0” - future

- Current market is new and have very few established players. We expect more companies to appear in this area to bring newer/better technology and to address specific scenarios

- Emerging services will substitute/complement current big players for many services where “classic” credit history is not relevant

- Once monetization is clear there will likely be many mergers and acquisitions done by current established Big Data players