Unlocking Data and Unleashing Its Potential

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Unlocking Data and Unleashing Its Potential

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@codeforamerica

#DoGoodData

DATA ON PURPOSE | DO GOOD DATA
Unleashing The Power of Data
DataKind

Harnessing the power of data science in the service of humanity.
Moulton Niguel Water District Project DataCorps Team
Between today and 2016-09-21 there is a 50 percent chance that demand will exceed supply for at least 1 day.
Bridging the Data Divide

Melinda Rolfs
Director of Data and Analytics

@CNTR4growth
www.mastercardcenter.org
Billions of people around the world are trapped in a poverty of access, cut off from the basic essentials they need to thrive.
Our mission is to advance sustainable and equitable economic growth and financial inclusion around the world.

Combine **expertise, data, technology** and **philanthropic investments** to empower a community on the front lines of inclusive growth.
Which Factors Impact Giving?
There appears to be a substitution effect among charitable and political donations during U.S. election cycles.
Donation Insights
Closing the Information Gap in Charitable Giving

Download the report and dataset
mastercardcenter.org

Share your learnings
donationinsights@mastercard.com
Tourism & Inclusive Growth

Mastercard data-driven insights reveal a better understanding of how foreign tourism impacts economies

- Harvard researchers are using the Mastercard's transaction data to better understand which destinations are most popular, which countries tourists come from and the types of retail sectors that benefit.

- Illustrates to policymakers how the benefits of promoting tourism as a development strategy can be spread more equitably around a country.

*Based on Mastercard’s anonymized and aggregated transaction data*
Combined Mastercard's data with open source Baltimore crime data. Defined blocks, then computed merchant densities and commercial robberies for each block.

- Analysis can help to quantify lost tax revenue from spikes in crime

- Joined White House Data-Driven Justice initiative, an effort to help local jurisdictions leverage data and analytics to improve the criminal justice system

*Based on Mastercard's anonymized and aggregated transaction data
Niantic responds to Senate inquiry into Pokémon Go privacy

Posted Sep 1, 2016 by Kate Conger (@kateconger)
Review and edit the marketing data about you below. Acxiom collects data from a variety of sources such as public records, surveys, and online and offline registrations. The accuracy and completeness of the data is determined by these sources. The data may not be complete and in some cases the data may not be current due to the timing of updates from these sources. Please remove or correct any data that is in error.

<table>
<thead>
<tr>
<th>Element</th>
<th>Details</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Birth</td>
<td>Remove this data about me for online marketing purposes (Was: 08/14/1972)</td>
<td>Edit/Remove</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>Edit/Remove</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Caucasian/White</td>
<td>Edit/Remove</td>
</tr>
<tr>
<td>Education</td>
<td>Remove this data about me for online marketing purposes (Was: Completed Graduate School)</td>
<td>Edit/Remove</td>
</tr>
<tr>
<td>Occupation</td>
<td>Remove this data about me for online marketing purposes (Was: Professional/Technical)</td>
<td>Edit/Remove</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Remove this data about me for online marketing purposes (Was: Inferred Single)</td>
<td>Edit/Remove</td>
</tr>
<tr>
<td>Number of Adults</td>
<td>1 Adult</td>
<td>Edit/Remove</td>
</tr>
<tr>
<td>Political Party</td>
<td>Remove this data about me for online marketing purposes (Was: Voter - Democratic)</td>
<td>Edit/Remove</td>
</tr>
<tr>
<td>Description</td>
<td>Value</td>
<td>Notes</td>
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<tr>
<td>--------------------------------------------------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>$499.99</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total Offline Purchases - $500-$999.99</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Average Dollars Spent Per Online Purchase</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>Total Online Dollars Spent</td>
<td>1042</td>
<td></td>
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<tr>
<td>Total Number of Online Purchases</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Total Online Purchases - Under $50</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total Online Purchases - $50-$999.99</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total Online Purchases - $100-$249.99</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Total Online Purchases - $250-$499.99</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total Number of Purchases</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>
Facebook shouldn't choose what stuff they show us to conduct unethical psychological research.

They should only make those decisions based on, uh...

However they were doing it before...

Which was probably ethical, right?

https://xkcd.com/1390/
Smartphones as new tools in the management and understanding of Parkinson’s disease

Andrew D Trister, E Ray Dorsey & Stephen H Friend

“Variability is the law of life...” — Osler, 1903.

Parkinson’s disease (PD) has been traditionally characterized by the motor symptoms of disease such as tremor, altered gait, and bradykinesia, with a well-established pathophysiology related to loss of dopaminergic neurons.
Use 2 fingers to alternately tap as fast as you can for 20 seconds.

Total Taps
101
high-dimensional data

<table>
<thead>
<tr>
<th>Traditional Measures</th>
<th>First-order Features</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Taps</strong></td>
<td>Number of taps, Mean tapping interval, Median tapping interval, Minimum tapping interval, maximum tapping interval, Standard deviation of tapping interval, Kurtosis of tapping interval, Interquartile range of tapping interval, Interquartile range of right button X, Range right button X, Standard deviation right button X, Interquartile range of left button X, Range left button X, Standard deviation left button X, Interquartile range of right button Y, Range right button Y, Standard deviation right button Y, Interquartile range of left button Y, Range left button Y, Standard deviation left button Y, Correlation X and Y, Skew tapping interval, No-button tapping frequency</td>
</tr>
</tbody>
</table>
effects of medication / daily variation
power shift. but to whom?
TOS agreements require giving up first born—and users gladly consent

Study says participants also agreed to allow data sharing with NSA and employers.

DAVID KRAVETS - 7/12/2016, 6:20 PM
pro-existing form, would probably first be, however slightly, in bodily structure, if so, whether the variations are transmigrant with the laws which prevail therein, are the variations the result, as far as we can judge, of the same general causation, as in the case of correlation, the inherited effect not being subject to similar malconformities of reduplication of parts of his anomalies reversion to it might also naturally be
we do interaction design everywhere, except where we need it the most.
I WILL NOT RE-IDENTIFY
I WILL NOT SHARE
I WILL NOT USE FOR ADVERTISING
I WILL KEEP SECURE
I WILL PROTECT PRIVACY
I WILL PUBLISH OPEN ACCESS
I WILL REPORT ANY BREACHES
I WILL CREDIT PARTICIPANTS
I WILL FOLLOW THE LAW
FIG. 1 - Centralized, Decentralized and Distributed Networks
DATA ON PURPOSE | DO GOOD DATA
Community Resource Directories and the future of knowledge and democracy
The Problem

It’s hard to see the safety net.
Community Resource Directory Data:

**WHICH** agencies?

**WHAT** services?

**WHERE** are they located?

**WHEN & HOW** are they accessed?
PROLIFERATING RESOURCE DIRECTORIES:

DC Food Finder

Welcome to the DC Food Finder: An Interactive Map of Food Resources in DC
Project of Healthy Affordable Food For All
Get Started Now!
- Simply click the box next to the resource you're looking for and type an address in the search bar.

DC BRIDGE

The BRIDGE Project seeks to provide an up-to-date and comprehensive guide to social services and public resources in the District of Columbia.

Search for Services
Volunteer Opportunities
Research Opportunities

211 Answers, Please!

You may either type in an agency/program name, or choose a suggested service as you type, then click the button "Search for resources".

State: District of Columbia
City: Washington
Zip code: 20021

Agency: Bread for the City
Provides low-income residents with holistic social services including food, clothing, medical care, etc.
http://dc.brdfordthecity.org/P...
1625 Seventh Street NW
Washington DC 20001 United States
Phone: (202) 296-4290

Program: Bread for the City - Clothing Program
Agency: Bread for the City
Provides clothing to all residents of DC. Clients can come every other day and shop an unlimited amount.
http://dc.brdfordthecity.org/P...
1645 Good Hope Road, NE
Washington DC 20002 United States
Phone: (202) 561-8697

Program: Bread for the City - DC Employment Justice Center NW
Agency: Bread for the City
Holds Workers' Rights Clinics; where low-income workers can receive legal advice in the areas of empl...
THIS IS A VERY OLD PROBLEM.
A LANDSCAPE OF SILOS: CHAOTIC, WASTEFUL, INEFFECTIVE

PEOPLE IN NEED:
- Poor families with children
- People with disabilities
- Veterans
- Elders
- Etc.

REFERRAL PROVIDERS:
- Call Centers
- Paper Directories
- Resource Websites
- Many others

SOCIAL SERVICE PROVIDERS:
- Shelters
- Food Pantries
- Medical Care
- Counseling
Community Awareness & Treatment Services, Inc. (CATS) – A Woman’s Place

1849 Howard St. (between 6th & 7th), 94103
1171 Mission St. 94103 Administrative Office
415-467-3148
415-703-9657 (Fax)
24-hours/7-days

CATS is an entry level emergency shelter for homeless women. The shelter provides on-site services including breakfast, lunch and dinner, referrals, housing and medical information, substance abuse counseling, and case management. Staff are available for one-on-one peer counseling with guests on a 24-hour basis. Can accommodate 40 women. Women should come in and ask for a bed. All clients must be under case management.

The Care program allows women to stay up to 18 months. Fees include 30% of income (no fee for one-night stays). Must be seen for an appointment by an intake worker to be put on the waiting list. The Primary Substance Abuse Program is based on the 12 steps of Alcoholics Anonymous and offers 30-to-120-day stays.
A LANDSCAPE OF SILOS: CHAOTIC, WASTEFUL, INEFFECTIVE

PEOPLE IN NEED

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- People with disabilities
- Veterans
- Elders
- Etc.

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- Many others

SOCIAL SERVICE PROVIDERS

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- Food Pantries
- Medical Care
- Counseling
Organizations that help people in need often don’t need more people asking for help.
A LANDSCAPE OF SILOS: CHAOTIC, WASTEFUL, INEFFECTIVE

PEOPLE IN NEED

Referral Providers

Call Centers
Paper Directories
Resource Websites
Many others

Social Service Providers

Shelters
Food Pantries
Medical Care
Counseling
HISTORY, REPEATING:

OM NOM NOM NOM NOM

.... wait.
'At any time that individuals may gain from the costly action of others, without themselves contributing time and effort, they face collective action dilemmas for which there are coping methods."

Nobel Laureate Elinor Ostrom
Commons-Based Peer Production
Our Vision

A healthy information ecosystem in which people can find what they need, in whatever way works best for them.
A HEALTHY ECOSYSTEM: ACCESSIBLE, INTEROPERABLE, SUSTAINABLE

PEOPLE IN NEED
- Poor families with children
- People with disabilities
- Veterans
- Elders
- Many others

REFERRAL PROVIDERS
- Call Centers
- Paper Directories
- Resource Websites
- Many others

OPEN REFERRAL
- Verification
- Interoperable
- Open Data
- Automatic Updates

SOCIAL SERVICE SERVICES
- Shelters
- Food Pantries
- Medical Care
- Counseling
EASIER SAID THAN DONE (XKCD #927)

HOW STANDARDS PROLIFERATE:
(SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC)

SITUATION:
THERE ARE 14 COMPETING STANDARDS.

14?! RIDICULOUS!
WE NEED TO DEVELOP
ONE UNIVERSAL STANDARD
THAT COVERS EVERYONE'S
USE CASES. YEAH!

SOON:

SITUATION:
THERE ARE 15 COMPETING STANDARDS.
We developed the Human Services Data Specification: an exchange format to bridge old and new.
A HEALTHY ECOSYSTEM: ACCESSIBLE, INTEROPERABLE, SUSTAINABLE

PEOPLE IN NEED
- Poor families with children
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- Many others

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OPEN REFERRAL
- Verification
- Interoperable
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SOCIAL SERVICE SERVICES
- Shelters
- Food Pantries
- Medical Care
- Counseling
Goals

Local pilots to move the world
Multi-stakeholder participatory research and deliberation
Our Partnerships in 2017:
A HEALTHY ECOSYSTEM: ACCESSIBLE, INTEROPERABLE, SUSTAINABLE

PEOPLE IN NEED

Call Centers
Paper Directories
Resource Websites
Many others

Poor families with children
People with disabilities
Veterans
Elders
Etc.

REFERRAL PROVIDERS

OPEN REFERRAL

Verfication
Interoperable
Open Data
Automatic Updates

SOCIAL SERVICE SERVICES

Shelters
Food Pantries
Medical Care
Counseling
Thanks for listening.
Let’s talk.

Greg Bloom: bloom@openreferral.org | 202.643.3648.
ST Mayer, Chief Program Officer
stmayer@codeforamerica.org
The two biggest levers for improving people’s lives at scale are technology and government.

We put them together.
● Empathy
● Outcomes
“The Department of Defense uses 8-inch floppy disks in a legacy system that coordinates the operational functions of the nation’s nuclear forces.” - 2016 GAO report
Our Model Starts Here

Build > Measure > Learn our way up the stack

Program Databases
Gov't Tools
Citizen Interfaces

Enterprise Vendors Start Here

Quality degrades each step down the stack
Government data is collected to:

● Prevent fraud and abuse
● Pass an audit = compliance
● Move information from one agency to another
● Monitor and regulate
Start at the End

What you want to accomplish with the data really, really matters!
Do I have to appear in court?

Text your citation number to 404-975-1115.

We’ll let you know if you can pay online and when your court date is.

Your citation number is in the top right corner of the ticket. You can also lookup your case online at http://court.atlantaga.gov
Your’re eligible to pay now and skip court. Just call (404) 658-6940 or visit court.atlantaga.gov.

Otherwise, your court date is Monday, Jul 21st at 11:00:00 AM, in courtroom 1A.
Atlanta residents wait 5hrs in line
You have 7 convictions on your RAP sheet:

PC 764a(b)
Insufficient Funds Check
Trial on Aug 20, 2011 at Los Angeles Metro Court

PC 287(D)
Grand theft: firearm/animal/etc
Trial on Jun 2, 2008 at CA Superior Court, Los Angeles

HS 11350
Possession of a controlled substance
Trial on Feb 13, 1990 at Los Angeles County Court

Eligible for Prop47!
California Department of Justice has over 29 million criminal records
Get help putting food on the table

Apply for food stamps in 10 minutes

Apply now →
CA SNAP Enrollment Rate is Low

Highest enrollment

Lowest enrollment
We are Collecting Data All the Time

**User-Centered Design**

- **Build**: Make something small to meet people’s needs
- **Learn**: Collect feedback about what works and what doesn’t
- **Measure**: Observe people using what you made

#DoGoodData
How People Experience a Process

- **2,386 applications**
- **0.59 approval rate**
- **1,740 Applied**
- **1,494.84 / -14.09% Interview**
- **1,298.71 / -11.27% Verify**
- **1,022.91 / -15.85% Eligible**
- **58.79% Approved**
- **3,021 Monthly Checks**
- **669 MAUs**
Texts from Our Clients

Yes, can it expedite the process? I need to explain that I might be facing bankruptcy if I can't get a job and I am being found "INELIGIBLE" for employment AFTER I get a job offer pending Background check.

Sent from via Chrome, 19d ago

The only thing in the past that affects my future is exactly that..my past. Can't move on.

I knew this happen when I was in my 20s I am now in my 40s and it's hindering me to get a good job.
“Efficiency in government is a matter of social justice.”

- John Norquist
Governments can:

• Make sure they own access to the data they collect
• Collect data with a focus on how they might use it later on
• Engage others in thinking how they might use it to achieve shared goals
• Make the cost of access visible
People outside government can:

- Share the data you collect
- Help government access the data they have
- Consider an MVP
- Be creative
- Be transparent
- Know the data may not exist
Audience Q&A

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