Broccoli & Cheese: Designing Digestible Data
I do not like broccoli. And I haven't liked it since I was a little kid and my mother made me eat it. And I'm President of the United States and I'm not going to eat any more broccoli.

— George H. W. Bush —

www.azquotes.com
Our roadmap

• What is worth measuring?
• How do we measure it?
• How do we collect data?
• Ways to include data in your storytelling
• Types of data visualization
• How to make broccoli and cheese from scratch
• Your Questions
WHAT IS WORTH MEASURING?
Three steps to useful data

1. Measurable
2. Meaningful
3. Mission-oriented
HOW DO YOU MEASURE IT?
How do nonprofits measure their work?

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>ACTIVITIES</th>
<th>OUTPUTS</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw materials needed for a project.</td>
<td>The work and tactics your organization pursues to meet a project’s objectives</td>
<td>The tangible and intangible product(s) of your activities.</td>
<td>The benefits that your project is designed and intended to deliver.</td>
</tr>
<tr>
<td>- Financial capital</td>
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<tr>
<td>- Human capital</td>
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<td></td>
<td></td>
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<tr>
<td>- Time</td>
<td></td>
<td></td>
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<tr>
<td>- Expertise</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>- Leadership</td>
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</tbody>
</table>

**IMPACT**

Higher level strategic goals.  
A change ... in the status quo ... after an action or intervention.
Some measures for Give to the Max Day

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<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Staff time</td>
<td>- Web development</td>
<td>- New search feature on GiveMN.org</td>
<td>- $18 million raised in one day</td>
</tr>
<tr>
<td>- Staff expertise</td>
<td>- Coalition building</td>
<td>- Multi-sector support</td>
<td>- Increase donors and gifts #</td>
</tr>
<tr>
<td>- Funder and sponsor resources</td>
<td>- Planning</td>
<td>- 22 trainings</td>
<td>- Raise awareness for MN nonprofits</td>
</tr>
<tr>
<td></td>
<td>- Securing funding</td>
<td>- Prize pool</td>
<td></td>
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<tr>
<td></td>
<td>- Media relations</td>
<td>- News coverage</td>
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</tr>
</tbody>
</table>

**IMPACT**

Ignite generosity. Grow giving.

6% of donors first time ever giving to charity. 70% of organizations receive more donations than would otherwise.
HOW DO YOU COLLECT DATA?
Simple Survey Tools

- Begin with the story you plan to tell, and then ask questions about it!
- Do you have the list to measure what you want?
- Often, simple is better
Survey Question Types

• **Dichotomous: yes/no**
  - Can use to separate into different tracks of questions.

• **Multiple choice**
  - When there is not one right answer

• **Rank-order and rating scaling**
  - Measures not just interest, but passion

• **Open-ended**
  - Use sparingly and only ask what is useful.

• **Demographic**
  - Put answers into context
Existing Datasets

• **Census data** | [factfinder.census.gov](http://factfinder.census.gov)
  Great for background data on a national, state or local level

• **Other public datasets** | [www.data.gov](http://www.data.gov)
  For more advanced users – access to nearly 200,000 searchable and browsable datasets
DATA-DRIVEN STORYTELLING
Nonprofit storytelling

- Stories of work you do, communities you serve, people you involve at all levels
- Your job as a data communicator:
  - Mine data and be picky
  - Provide context
  - Tell people why they should care
- Data supports and/or informs your stories
  - Minnesotans United for All Families—a storytelling campaign
GiveMN Golden Tickets

• What are they?
• Why do they work?
• How do we tell stories of their impact?
Meet Maggie

Maggie was one of 62,607 donors that took part in Give to the Max Day 2014.
Meet Maggie

Maggie cares about her community and decided to make a $100 donation to Centennial Middle School in Lino Lakes.
Meet Maggie

Her $100 gift was pulled at random from 120,664 donations to receive a Super-Sized Golden Ticket, adding $20,000 more to her donation courtesy of the Bush Foundation.
Meet Maggie

Principal Bob Stevens involved Maggie every step of the way alongside students and staff to determine how to best use their unexpected windfall.

After planning, they decided to outfit their aging media center with new books, technology, decorations and furniture—turning it from a **transactional book checkout** to a **coveted destination for students to learn and collaborate**.
Meet Maggie

After a year of work and planning which brought her closer to her community school, Maggie cut the ribbon alongside the students who benefited the most...
Meet Maggie

...in the new space that now bears her name for years to come. All because of the generosity of a $100 gift, funders who care, and the power of a giving day.
Data as part of the written narrative

- Plug data in simple ways
  - Show the impact of certain levels of donation to your organization
  - Data can help readers more quickly understand your impact on your website or in an annual report
Second Harvest Heartland

1 in 6 Minnesota children lives at risk of hunger

Your donations work TWICE as hard on Give to the Max Day, thanks to a $100,000 match from The Mosaic Company Foundation, plus other matching funds from individual donors.
**Root Capital's Performance**

Root Capital, a nonprofit social investment fund, grows rural prosperity by investing in agricultural small and growing businesses. Root Capital measures its performance by the strength and reach of its portfolio and the social and environmental impact of its investments.

<table>
<thead>
<tr>
<th><strong>$946M</strong></th>
<th><strong>5.3M</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan Disbursements</td>
<td>Household Members Reached</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>1982</strong></th>
<th><strong>612</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Loans</td>
<td>Borrowers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>$154M</strong></th>
<th><strong>$101M</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Four Quarter Rolling Disbursements</td>
<td>Outstanding Balance</td>
</tr>
</tbody>
</table>

**Behind the numbers**

**Investor Testimonial**
Root Capital has more than ten years of experience in impact investing and maintains a 100% investor repayment rate.

**Our Portfolio Growth**
By 2018, Root Capital will have an average portfolio size of $150 million that will reach over 650 businesses, plus the growth of our outstanding portfolio balance.

**Our Model**
Root Capital lends capital, delivers financial training and strengthens market connections for small and growing agricultural businesses. View the animation about our model.

**Performance Reports**
Our quarterly reports provide information about our portfolio, fundraising efforts, and operating expenses, as well as our social and environmental impact.
DATA VISUALIZATION
Data Viz
How to use data visualization to tell your story.
Bar Charts show basic comparison
Line graphs show change over time

Minnesota Average Annual Temperature

1.1°F/century

5.3°F/century

Temperature (°F)


Health.state.mn.us
Pie charts show relationship to a whole...
...but beware
Use pie charts only when most appropriate

A comparison of New York State and New York City by area, population, local aid and Medicaid spending

Area
- New York City 1%
- Rest of New York State 99%

Population
- 2003 U.S. Census Bureau estimate
- New York City 42%
- New York State 58%

Local Aid
- Fiscal Year 2007-2008
- New York City 40%
- New York State 60%

Medicaid Spending
- Calendar year 2006
- New York City 50%
- New York State 50%

Sources: Area and Population: U.S. Census Bureau Quick Facts. Local Aid and Medicaid Spending: OMH data.

omh.ny.gov
Bubble graphs show multiple dimensions
Maps help visualize place-based data
Maps can be very local
Data viz can change the way we see things
Data viz can also be very interactive

Food Insecurity in The United States

Food Insecurity by County

Food Insecurity by Congressional District

Food Insecurity Rates

Feedingamerica.org
Show the data

CROWDFUNDING MINNESOTA’S COMMUNITIES

- Donations made from each of the 87 counties in Minnesota
- Donations made from each of the 50 states in the U.S.
- Donations made from 41 countries on 5 continents around the world (North America, Europe, Asia, Africa, and Australia)

62,750 DONORS
More generous Minnesotans than Target Field and Target Center combined could hold!

BUILDING BUZZ FOR NONPROFITS AND SCHOOLS

- Smallest donation: $10
- Largest donation: $50,000
- Average contribution: $148.71
- One donation every 0.7 seconds
- Number of gifts: 121,469

PRIZES

- $150,000
  Leaderboard and Golden Ticket prizes given to organizations thanks to the Bush Foundation

- $10,000
  Super-Sized Golden Tickets won by Special Olympics Minnesota and Minnesota Fallen Firefighters Memorial Association

300+ news articles or broadcast stories about Give to the Max Day across the state and nation

24,083 Number of times #GTMD15 digital billboards displayed updated totals across Minnesota

200+ million media impressions
Induce the viewer to think about the substance rather than about methodology, graphic design or production

http://visual.ly/world-beer
Avoid distorting what the data have to say
Present many numbers in a small space

<table>
<thead>
<tr>
<th>Smallest donation</th>
<th>Largest donation</th>
<th>Average contribution</th>
<th>One donation every</th>
<th>Number of gifts</th>
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<td>$10</td>
<td>$50,000</td>
<td>$148.71</td>
<td>0.7 seconds</td>
<td>121,469</td>
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</table>
Make large data sets coherent

AN ONLINE FLASHMOB OF SUPPORT

208,961 visits to GiveMN.org on Give to the Max Day 2015

38.6% of visitors gave on-the-go with a tablet or mobile device

30.8% of all site visitors clicked through to GiveMN.org from social media

#GTMD15 HASHTAG BUZZ
National Twitter Trending Topic
The Top Twin Cities Twitter Trending Topic
#GTMD15 impressions on Twitter alone 11,031,236
Encourage the eye to compare different pieces of data

<table>
<thead>
<tr>
<th>LEADERBOARDS</th>
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</thead>
<tbody>
<tr>
<td><strong>Overall</strong></td>
</tr>
<tr>
<td>1. Cretin-Derham Hall</td>
</tr>
<tr>
<td>2. Second Harvest Heartland</td>
</tr>
<tr>
<td>3. Augsburg College</td>
</tr>
<tr>
<td>4. Animal Humane Society</td>
</tr>
<tr>
<td>5. Interfaith Outreach and Community Partners</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th><strong>Medium Nonprofits</strong></th>
<th><strong>Small Nonprofits</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Church of St. Joseph - Red Wing</td>
<td>$135,745</td>
</tr>
<tr>
<td>2. Northeastern Minnesotans For Wilderness</td>
<td>$122,346</td>
</tr>
<tr>
<td>3. Shir Tikvah Congregation</td>
<td>$111,951</td>
</tr>
<tr>
<td>4. Listening House of St. Paul</td>
<td>$84,550</td>
</tr>
<tr>
<td>5. Wildcat Sanctuary</td>
<td>$81,423</td>
</tr>
<tr>
<td>1. Avalon Educational Institute</td>
<td>$38,035</td>
</tr>
<tr>
<td>2. Nathan Hale PTA</td>
<td>$35,210</td>
</tr>
<tr>
<td>3. Minnesota Sheltie Rescue</td>
<td>$32,893</td>
</tr>
<tr>
<td>4. Top Dog Foundation</td>
<td>$27,578</td>
</tr>
<tr>
<td>5. Bei Dou Xing</td>
<td>$20,735</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th><strong>Colleges &amp; Universities</strong></th>
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</thead>
<tbody>
<tr>
<td>1. Augsburg College</td>
</tr>
<tr>
<td>2. University of Minnesota Foundation</td>
</tr>
<tr>
<td>3. Saint Mary’s University of Minnesota</td>
</tr>
<tr>
<td>4. Central Baptist Theological Seminary</td>
</tr>
<tr>
<td>5. The Saint Paul Seminary</td>
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</tbody>
</table>
Reveal the data at several levels of detail, from broad to fine

RAISED

$18,063,598

BENEFITING 5,726 nonprofits and schools

$140,000,000+ raised since GiveMN launched in 2009

6.8% of donors made their first ever charitable gift during Give to the Max Day
Serve a reasonably clear purpose: description, exploration, tabulation or decoration.

Minnesota’s annual giving holiday inspired more generous donors in 2015 than ever before! As GiveMN concludes our seventh year, having raised more than $140 million for Minnesota nonprofits and schools since our founding, Give to the Max Day is about more than just the dollars raised. It brings awareness to the organizations that strengthen our communities through a collaboration of media partners, corporate supporters, foundation sponsors, and tens of thousands of donors supporting favorite causes and new organizations. Thank you for your role in helping to ignite generosity and grow giving in Minnesota!
Be closely integrated with the statistical and verbal descriptions of a data set.
Other data visualization: gifs
Other data visualization: word clouds
Tools: from basic to expert

- Microsoft Excel
- Numbers for Mac
- Google Sheets
- Tableau
- Highcharts
- Google Charts
- Mapbox
- Leaflet
- CartoDB
- d3.js
FINDING YOUR BROCCOLI,
CREATING YOUR CHEESE
How to create a data-driven story

1. Begin to measure your outcomes and impact
2. Mine your data smartly
   • Strive for surprises, but be honest!
3. Storyboard your story
4. Determine your audience & stage
5. Create your story
6. Move from macro to micro
7. Plan to publish and promote
Wrapping it up

• More data exists or could be gathered than you could ever use
  • Begin with the end product in mind!
• Assemble your argument and story
• Don’t need to feed your supporters all the vegetables—prioritize what you cover in cheese!
YOUR QUESTIONS
SAVE THE DATE

November 14, 2019
Give to the Max Day
THANK YOU

JakeB@givemn.org

GiveMN
help@givemn.org