


## Spurious correlations

Total revenue generated by arcades
correlates with
Computer science doctorates awarded in the US
Correlation: $98.51 \%$ ( $\mathrm{r}=0.985065$ )


Data sources: U.S. Census Bureau and National Science Foundation

## Stats refresher

- Correlation: indicates the extent to which two or more variables fluctuate together (interdependence).
- Between -1 and +1
- Positive (+) correlation indicates the extent to which those variables increase or decrease in parallel.
- Negative (-) correlation indicates the extent to which one variable increases as the other decreases.
- Keep in mind...Correlation $\neq$ Causation


## Spurious correlations

Letters in Winning Word of Scripps National Spelling Bee
correlates with
Number of people killed by venomous spiders
Correlation: 80.57\% ( $r=0.8057$ )


Number of people who drowned by falling into a pool
correlates with
Films Nicolas Cage appeared in


Data sources: Centers for Disease Control \& Prevention and Internet Movie Database


## Partners in growth



## 2018 Plan

- Establish governance structure
- Support priority objectives
- Serve in preparations for Brighter World Research Initiative
- Build front-line capabilities


## Analytics Evolution

## From baseline to wisdom




## Dynamic Scores

Dynamic Affinity Score

- Degree
- Student activities
- Volunteer experiences
- Scholarships \& awards
- Activities
- Contact/Engagement
- Giving Frequency
- Bequest


## Dynamic Quadrant



## Potential Strategies

## Committed



## Sleepers

Limit high cost appeals Continued engagement

## Champions

Assigned to staff
Sr. leader involvement
Personalized engagement

## Acquaintances

Alumni engagement
Regular giving

Affinity

## Dynamic Interest Score

## Behaviour

- Donations
- Event attendance
- Volunteering


## Self-Identified Interest

- Survey
- Social media



## Dynamic Interest Score

| Eddard Stark - ID\#0123456789 |  |  | Features (input variables) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Segments | Code | Score \% | LT Giving School ${ }^{1}$ | LT Giving Purpose ${ }^{2}$ | $\begin{gathered} \text { Survey } \\ \text { EAi }- \text { Vol }^{3} \end{gathered}$ | Survey EAi - Support ${ }^{4}$ | Survey QOTWC-Persona ${ }^{5}$ |
| Athletics \& Sport | NAT |  | NAT |  |  |  | ATH |
| Business | BUS | 23\% | BUS |  |  |  |  |
| Capital, Operations, \& Equipment | NAD |  | NAD | E, O, X |  | X30-A06 | CB |
| Community | COM | 6\% |  | C | X26-A03 | X30-A07 |  |
| Engineering | ENG |  | ENG |  |  |  |  |
| Health Sciences | HSC |  | HSC |  | X26-A01 |  |  |
| Humanities | HUM |  | HUM |  | X26-A05 |  |  |
| Library | NLB | 18\% | NLB | L |  |  | LIB |
| Museum | NMU |  | NMU |  |  |  |  |
| Office of Alumni Adv / MAA | NUA |  | NUA |  |  |  |  |
| President | PRE |  | PRE |  |  |  |  |
| Research | NRS | 30\% | NRS | R |  | X30-A04 |  |
| Scholarships \& Bursaries | SCB |  |  | S |  | X30-A01, X30-A02 | SB |
| Science | SC |  | SC |  |  |  |  |
| Social Sciences | SSC |  | SSC |  | X26-A02 |  |  |
| Teaching \& Learning | TLR | 23\% | NAP, NAF, NAL, NPR | A | X26-A00 | X30-A05 |  |
| Unrestricted | URE |  |  | U |  | X30-A00 | UGN |
|  |  | 16 | 5 | 5 | 2.5 | 2.5 | 1 |

${ }^{1}$ Lifetime giving (\# and \$) to allocation school
${ }^{2}$ Lifetime giving (\# and \$) to allocation purpose
${ }^{3}$ Alumni Engagement survey (2015) - Do you currently volunteer for another organization than McMaster? Select the type of organization
${ }^{4}$ Alumni Engagement survey (2015) - In the next year, if McMaster asked you to make a contribution to support one of the following specific projects, please choose the area(s) you would likely support. (Select up to three.)
${ }^{5}$ QOTWC Alumni Persona survey (Nov 2017) - You make a gift to support the University. Where does it go?

## Demo

McMaster University



## Entity Overview



Champion
DAR Score
DCR_Scere
Last Contact: Either Set up visit or Visit (Date and by whom)

Internal Evaluation Note
R: '07 BSc, I: Entrepreneurship C: based on stock holdings and salary Major Gift Capacity $\geq 259,000$
Profile: Provide yrl of profile note.

Wealth Notes: If available provide Annual Family Income, Real Estate Value from Wealth Indicators page
Other Philanthropic Affinities:
2006 - $\$ 260,000$ to McMaster Hospital for MRI

Relationships (from the Relationship Map on BI)

## Phase 2 (TBD)

## Continuous improvement

- Donor profile report
- Additional table fields
- Generation slicer
- Social media data
- Internal relationship score
- Dynamic Interest Score





## Anchoring

- We rely heavily on the first piece of information offered (the "anchor") when making decisions
- Seeing a number - even a random and unrelated number - can have an outsized effect on our rational thinking.
- Bias toward interpreting other information around the anchor


## Anchoring Example 1

- Judges with >15 years experience reviewed details of a shoplifter's case.
- Before making a sentencing judgment, rolled dice rigged to always show 3 or 9 .
- On average, those who rolled...
- 9 said they'd sentence defendant to 8 months
- 3 said they'd sentence defendant to 5 months
- Difference = 60\%


## Anchoring Example 2

- Asked guests of the Exploratorium if they would make an annual contribution to "save 50,000 offshore Pacific Coast seabirds from small offshore oil spills?"
- Guests were first asked an anchoring question - "Would you be willing to pay \$x...?"
- On average, they said they would donate...
- No anchoring question = \$64
- $\$ \mathbf{5}$ Anchor $=\$ 20$
- \$400 Anchor = \$143


## Anchoring Example 3

- 31 UA colleagues "How old do you think Gandhi was when he died?"
- First asked an anchoring question - "Was Mahatma Gandhi older or younger than \{INSERT ANCHOR AGE\} when he died"
- The average estimated age of Gandhi* when he died was...

$$
\begin{aligned}
& \text { - } 44 \text { Anchor Age }=59 \\
& \text { - } 140 \text { Anchor Age }=90
\end{aligned}
$$

- Difference = 54\%

* Gandhi was 78 when he died


## Anchoring...so what?

- Use multipliers to increase your dollar handle
- Provide tangible value to your donors
- Example: instead of leading with $\$ 1.76$ provides a hot meal, try $\$ 88$ provides 50 hot meals.
- Limit the low end of ask arrays
- Test leaving out anything on the low end in ask arrays.
- Control: low | avg | high | open
- Test: high|open
- Test using average online gift and rounding up



## Break

McMaster University





