# The effect of social information on charitable giving 

## Evidence from the (running) field

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## Two alternative views on social influence

- "When therefore you do your charity giving, you should not blast a trumpet before you like the pretenders in the synagogues and in the streets". (Matthew: ch 6, v2)
- "The size of your gift can persuade your peer to make a contribution as significant as yours."
- How to succeed in fundraising by really trying

"When [Brooke Astor] gave one donation to the New York Library, three major gifts from Bill Blass, Dorothy and Lewis Cullman and Sandra and Fred Rose all followed, with her generosity cited as the inspiration." (New York Times)



Modern equivalent

## How important are each of the following in deciding how much to give?

| Sample Size: 17,989 | Very <br> important | Somewhat <br> important | Not very <br> important | Not at all <br> important | Not <br> applicable |
| :--- | :---: | :---: | :---: | :---: | :---: |
| A sense that my money will be <br> used efficiently/ effectively | $56.1 \%$ | $35.0 \%$ | $6.9 \%$ | $1.6 \%$ | $0.6 \%$ |
| The charity's cause or mission | $45.1 \%$ | $44.1 \%$ | $8.4 \%$ | $1.9 \%$ | $0.6 \%$ |
| My income and what I can afford | $45.3 \%$ | $42.3 \%$ | $9.0 \%$ | $2.5 \%$ | $0.8 \%$ |
| A personal connection to the <br> fundraiser | $41.5 \%$ | $43.4 \%$ | $10.6 \%$ | $3.5 \%$ | $1.1 \%$ |
| The fundraiser's reason for <br> fundraising | $38.0 \%$ | $48.0 \%$ | $10.1 \%$ | $3.0 \%$ | $1.0 \%$ |
| The reputation of the charity | $32.7 \%$ | $47.5 \%$ | $15.3 \%$ | $3.4 \%$ | $1.0 \%$ |
| Tax relief (e.g. Gift Aid) | $21.7 \%$ | $34.8 \%$ | $23.5 \%$ | $14.3 \%$ | $5.8 \%$ |
| Type of fundraising event | $14.4 \%$ | $45.8 \%$ | $29.8 \%$ | $8.6 \%$ | $1.5 \%$ |
| The name of the charity | $14.1 \%$ | $39.4 \%$ | $32.5 \%$ | $12.1 \%$ | $1.9 \%$ |
| The total amount the fundraiser is <br> seeking to raise | $3.3 \%$ | $28.0 \%$ | $38.9 \%$ | $24.9 \%$ | $5.1 \%$ |
| How much other people have <br> given to the fundraiser | $2.7 \%$ | $21.6 \%$ | $39.0 \%$ | $33.1 \%$ | $3.7 \%$ |
| An individual amount suggested <br> by the fundraiser | $1.4 \%$ | $15.9 \%$ | $39.6 \%$ | $29.9 \%$ | $13.2 \%$ |

## This paper

- How does the amount that people give respond to information on how much other people have given?
- Higher donations could lead to people giving less...
- Free-riding
- ... Or to giving more
- Higher donations make it more likely that a threshold level will be met
- Higher donations provide a signal about the quality of the charity
- Higher donations mean people need to give more to signal generosity/ wealth, or to conform
- We find evidence of strong effects (positive and negative)
- Social mechanisms are the most likely explanation


## This paper

- Exploit online fundraising:
- Justgiving
- Virgin Money Giving
- Donations on behalf of people running in the 2010 London marathon
- Donations are made online to individual fundraising pages; donors see all previous donations to the page when they go to make a donation


## JustGiving ${ }^{-}$



James Nicholson's Fundraising Page

Virgin London Marathon 2010 on $25 / 04 / 2010$


My not-so-heroic sprint finish!!!
Photos (1)

Raising money for
Plab Limited
Charity Registration No. 28393

## ackis?

Phab is a national charity dedicated to promoting and encouraging the coming together, on equal terms, of disabled and non-disabled people to achieve an integrated and inclusive society.

## - Get a pacelike this

${ }_{30}$ Remind me to donate late

Page owne

Target: $£ 1,500.00$
Raised so far: $£ 1,564.00$
 Now for the big one!!
|ve finally decided to stop being a big jessie and making excuses like "my knees cant take itt, "I'm not built for long distance running," "my brother's girffriend keeps beating me," and just suckit up. I'm unning, and I use that term loosely the 2010 London Marathon. Im raising money or Phabkis, charity promotes and encourages disabled and non-disabled children and adults to take part sports and social activities with the aim of achieving social inclusion. I'm sure you agree that this is a worthwhile cause.

Twould be grateful if you could spare a small amount to help me get to my $£ 1500$ target for Phabkids, and feel free to come and laugh at me going through hell next April. Thanks very much for looking.
James


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finally remembered!!! Good luck tomorrow it'll be a fantastic achievement!
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Donation by Rebecca Waterman 24/04/10

Good Luck mate, however being sat in that suit III for so long and pub lunches swinging that lamp, with all those lids cheering you. The pressure.
Donation by Dan Hatton 2100410


Go for it Jimbo...just remember 'pain don't hurt'! But when in doubt... 'fast arms' is the answer - Good Luck! Donation by Harry and $\mathrm{Em} \times 14 / 04110$


Praying my card refuses this transaction so I get everyone seeing IVe donated money to charity, without actually having to pay anything. Good Jim-Nic
Donation by Jamie Bartlett 13/04/10

## $£ 25.00$

 + E7.05 Gift Aid

## Charity



## Event details

2010 Virgin London Marathon 25 April 2010
The Virgin London Marathon is one of the great British sporting events combining elite athletics, mass fundraising in one race. The course is a gruelling 26 miles 385 yards long, passing through the streets of London from Blackheath to the famous finish line at The Mall. Since the first race in $1981,746,635$
runners have passed the finish and raised more than $£ 400$ million for charities and good causes. Last year alone a staggering $£ 47.2$ million was raised, making the holder as the largest annual fundraising event on the planet.

Only


## Sarah runs $\mathbf{2 6 . 2}$ miles for Action For Children

Fundraiser: Sarah Bickerton
My page: http://uk,virginmoneygiving, com/AFC
Hello Friends.....
I am proud to be running the Virgin London Marathon 2010 to raise money for Action for Children. 26.2 miles is a long way and every penny you can sponsor me will help a great deal.

Through Virgin Money Giving, you can sponsor me and donations will be quickly processed and passed directly to my chosen charity, Action For Children. Virgin Money Giving is a not for profit organisation and will claim gift aid on a charitys behalf where the donor is eligible for this. I really appreciate all your support and thank you for any donations.

## Donate now 18

## Recent donors

Showing results 1-20 of 20

## Kim Silver

$£ 10.00$ ( $+£ 2.82$ giftaid
29.04.10 Well done, Sarah! You have done fantastically well. Looking forward to your next achievement - the Access Diploma!

## Lauren Purvis $£ 5.00$ ( $+£ 1.41$ giftaid

26.04.10 Well done hon, what a huge acheivement - I'm just sorry I can't donate a little bit more as you deserve it!

| Anonymous | $£ 5.00$ (+ $£ 1.41$ giftaid) |
| :--- | ---: |
| $\mathbf{2 5 . 0 4 . 1 0}$ how'd you do? |  |
| Roz | $£ 10.00$ (+£2.82 giftaid) |
| $\mathbf{2 5 . 0 4 . 1 0}$ Ginnत lurk $x \times x$ |  |

## Photos



There are no photos to see at the moment

Other fundraising

## Overview

- Potential issues with using the marathon data
- Donations to a (fundraising) page likely to be correlated
- Donors share characteristics (income, age etc)
- Same charity and fundraiser
- We exploit within-page variation to identify the effect of past donations
- Advantages of using the marathon data
- Scale of fundraising activity: $>300,000$ donations to $>10,000$ fundraisers running on behalf of 1,000+ charities
- Situation where donors have full information on past donations

Match information from Charity Commission Register

## 1,000+ Charities

Match information from Marathon results database


Fundraisers
10,000+ people running in the marathon who set up a fundraising page

## Sample summary statistics

|  | Mean | St. dev. | Min. | $1^{\text {st }}$ pctile | Med. | $\begin{aligned} & \text { 99th } \\ & \text { pctile } \end{aligned}$ | Max. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of donations per page | 34.5 | 25.4 | 1 | 1 | 29 | 114 | 370 |
| Total raised online per page | £1,093 | £1,401 | £1 | £20 | £778 | £5,710 | £40,326 |
| Total raised offline per page | £335 | £1,115 | £0 | £0 | £0 | £3,077 | £53,000 |
| Online donations - all | £30.31 | £66.02 | £1 | £5 | £20 | £200 | £10,000 |
| Online donations - made by men | £35.38 | £78.36 | £1 | £5 | £20 | £250 | £10,000 |
| Online donations - made by women | £24.96 | £49.22 | £1 | £5 | £20 | £150 | £6,550 |
| Proportion of pages with target | . 803 |  |  |  |  |  |  |
| Prop. of pages with target achieved | . 395 |  |  |  |  |  |  |
| Target amounts | £99,985 | £9.9 m | £0.01 | £200 | £1,500 | £7,000 | £1 bn |
| Regression sample: |  |  |  |  |  |  |  |
| Include only pages with $10-100$ donations, exclude first five donations to each page |  |  |  |  |  |  |  |
| Exclude pages with donations $>£ 1,000$ |  |  |  |  |  |  |  |
| Focus on targets between $£ 200$ and $£ 7,000$ (and no offline donations) |  |  |  |  |  |  |  |

## Large and small donations as a "natural experiment"

- We exploit within-page variation to identify the effect of how much other people have given
- Natural experiment: What happens if I arrive at a page just after a "large" or "small" donation? Will this affect how much I give?
- Compare amounts given just before/after the large (small) donation
- Idea that exact timing of donations is random
- "Large" donation = twice page mean, >£50. Mean = $£ 102$.
- "Small" donation = half the page mean. Mean = $£ 8.61$.
- Focus on first large/ small donation, ignoring those within the first five donations to a page.

Arriving after a "large" donation has a positive effect on the amount that people give

number of donations - days before/after


## Distributions of amounts donated

One donation before and one donation after a large donation


## The size of the large donation matters:

Twice mean


Five to ten times mean


Three or four times mean


Ten or more times mean


NB: Graphs exclude the large donation itself and focus on the five donations before/after

## Arriving after a "small" donation has a negative effect

 on the amount that people give
number of donations - days before/after


## Large and small donations as a natural experiment

- Do large donations on one page crowd out donations to other pages?
- In our JG sample there are 1,626 donors who make at least three donations to different pages
- Do they give more/less if they follow a large donation on one page?
- Own page effect $=7.250, \mathrm{SE}=4.138$
- Do they give more/less when they subsequently go to another page?
- Spillover effect $=2.588, \mathrm{SE}=1.804$


## Regression analysis

- Regression analysis confirms the positive influence of past donations: a $£ 10$ increase in the mean of past donations raises the amount given by $£ 3.50$
- Regression analysis shows that this effect is not smaller for
- Pages without targets, compared to those with targets
- Bigger charities, compared to smaller charities
- Older charities, compared to younger charities
- Domestic charities, compared to overseas charities
- Older donors (40+ ), compared to younger
- It is bigger for male donors than for female


## Behaviour around the target

- $80 \%$ of pages have a target amount (median $=£ 1,500$ )
- Half of these achieve the target amount
- How do donations behave around the target amount?
- Again, relying on random variation in exact timing of when donors arrive at the page
- Caveat - fundraisers can change their target; we don't know how extensive this is in practice

Profile of donations around the target

$0=$ first donation to take total over target

## Conclusions and points for discussion

- This paper provides robust evidence of sizeable peer effects in giving
- Large, early donations can increase total fundraising
- $£ 100$ donation will repay itself in ten donations' time
- But, peer effects can be negative as well as positive
- The paper also sheds some light on why other donations matter
- Not (just) threshold effects; not a quality-signalling story
- Specific context of online fundraising among friends, family etc
- What type of peers have effects?
- What about other sources of information on how much other people have given?


First large donation

|  | Three before/ | Five before/ | Five before/ | Five before/ |
| :--- | :---: | :---: | :---: | :---: |
|  | Three after | Five after | Ten after | Twenty after |
| ffter | $12.622^{* *}$ | $11.171^{* *}$ | $10.517^{* *}$ | $9.797^{* *}$ |
|  | $(1.034)$ | $(0.746)$ | $(0.562)$ | $(0.391)$ |
| $N$ | 17,213 | 16,720 | 8,024 | 2,938 |

Different sized large donations (five before/after)

|  | Twice mean | Three times mean | Five times mean | Ten times mean |
| :--- | :---: | :---: | :---: | :---: |
| After | $9.394^{* *}$ | $10.304^{* *}$ | $15.184^{* *}$ | $15.203^{* *}$ |
|  | $(1.133)$ | $(1.166)$ | $(1.957)$ | $(3.329)$ |
| $N$ | 17213 | 16720 | 8024 | 2938 |

First small donation

|  | Three before/ | Five before/ | Five before/ | Five before/ |
| :--- | :---: | :---: | :---: | :---: |
|  | Three after | Five after | Ten after | Twenty after |
| After | $-5.567^{* *}$ | $-5.591^{* *}$ | $-3.589^{* *}$ | $-2.987^{* *}$ |
|  | $(0.764)$ | $(0.565)$ | $(0.488)$ | $(0.451)$ |
| $N$ | 35,051 | 59,187 | 109,118 | 298,872 |

Notes to table: Regressions include additional controls for place within page (linear trend), indicators for days since page was set up (capped at 100) and indicator variables for two days and one day before the marathon, the day of the marathon and (any) days after the marathon

|  | Fixed effects | Difference GMM | Difference GMM |
| :---: | :---: | :---: | :---: |
| Target donation | 54.255** | 47.471** | 50.323** |
|  | (3.881) | $(0.059)$ | $(1.476)$ |
| Reached target | -2.892** | -2.838 | 7.365** |
|  | $(0.544)$ | $(1.489)$ | (1.772) |
| Past_mean (¢) |  | $\begin{gathered} \hline 0.338 * * \\ (0.059) \\ \hline \end{gathered}$ | $\begin{aligned} & 0.327^{* *} \\ & (0.039) \end{aligned}$ |
| Past_mean * Reachedtarget |  |  | $\begin{gathered} -0.303^{* *} \\ (0.046) \\ \hline \end{gathered}$ |
| Number of obs $=$ NI | 139,732 | 127,522 | 127,522 |
| Number of pages $=I$ | 4,221 | 3,839 | 3,839 |

Crowd in effect appears to go away once the target has been reached


