



The haves and the have nots: is civic tech
impacting the people who need it most?

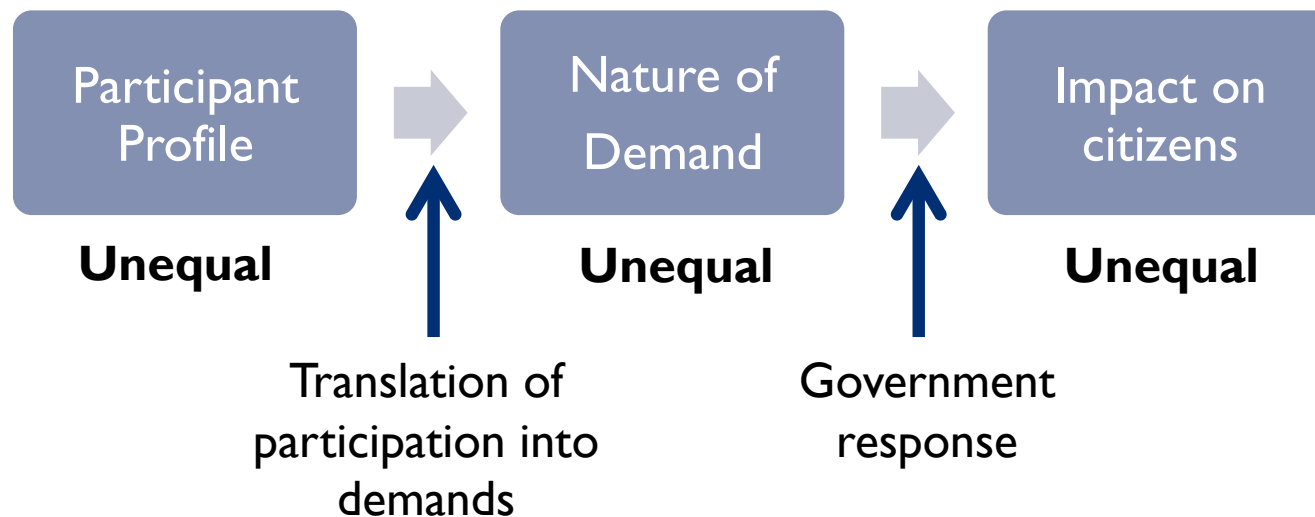
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Digital civic engagement and inequality

- ▶ Digital divide
- ▶ Empowering the empowered



Research questions

- ▶ How representative are citizens who engage with civic tech compared to:
 - ▶ offline participants
 - ▶ the general population
- ▶ How do participant profiles translate into the types of demands made through these platforms?
- ▶ How do the demands made through these platforms translate into impact on citizens? Does government response translate, exacerbate or ameliorate inequalities in demands?



Four Case Studies

- ▶ Fix My Street (UK)
 - ▶ Participatory budgeting (Brazil)
 - ▶ U-Report (Uganda)
 - ▶ Change.org (worldwide)
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- ▶ Each of these takes individual acts of participation and turns them into requests to the government
 - ▶ Nature of these requests varies greatly as does the design of the platforms
 - ▶ Ongoing research (we indicate where findings are still preliminary)



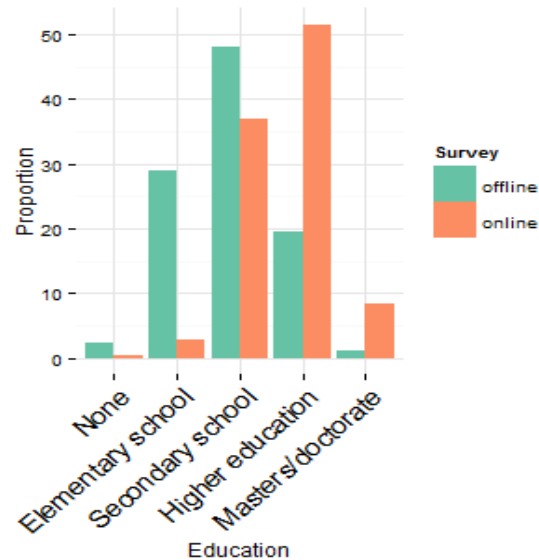
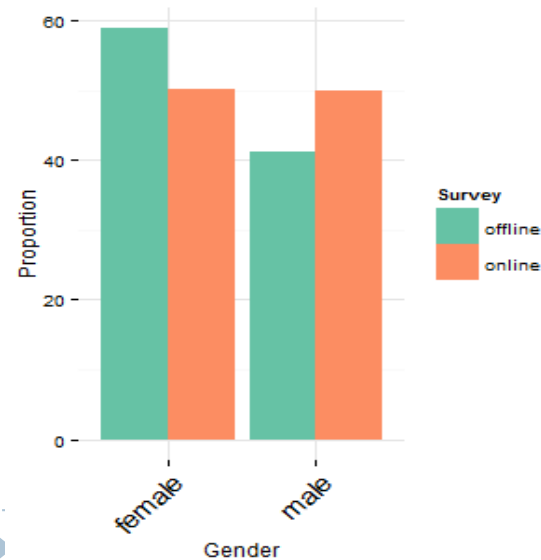
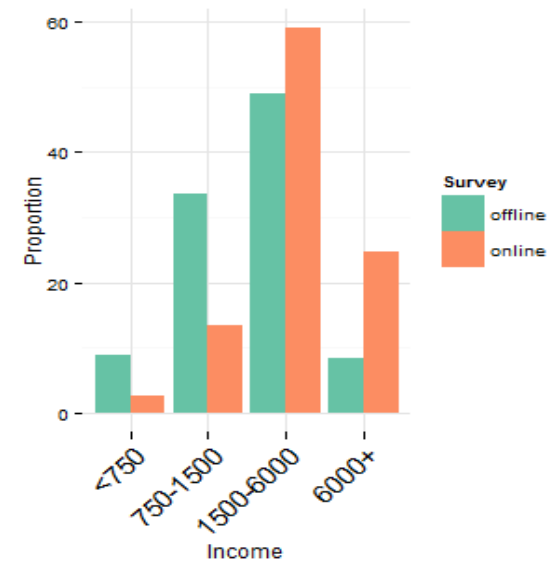
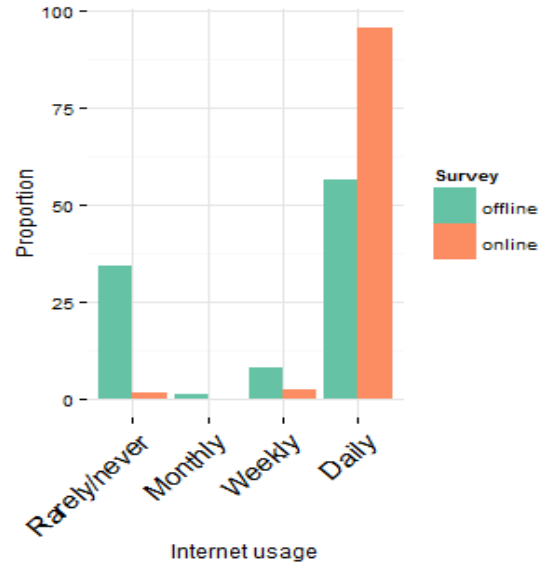
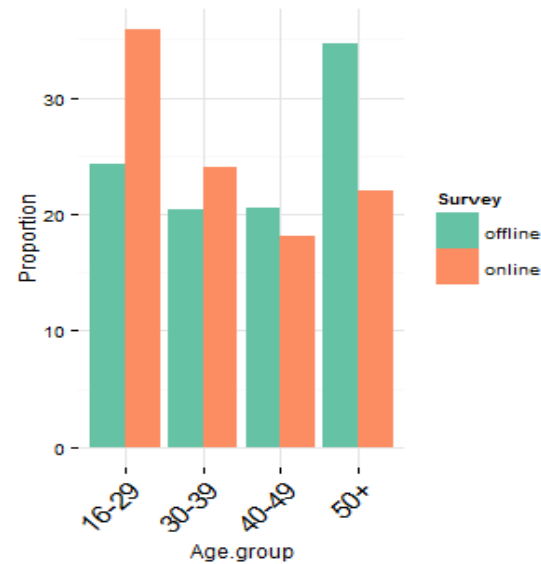
Case study 1: Participatory budgeting



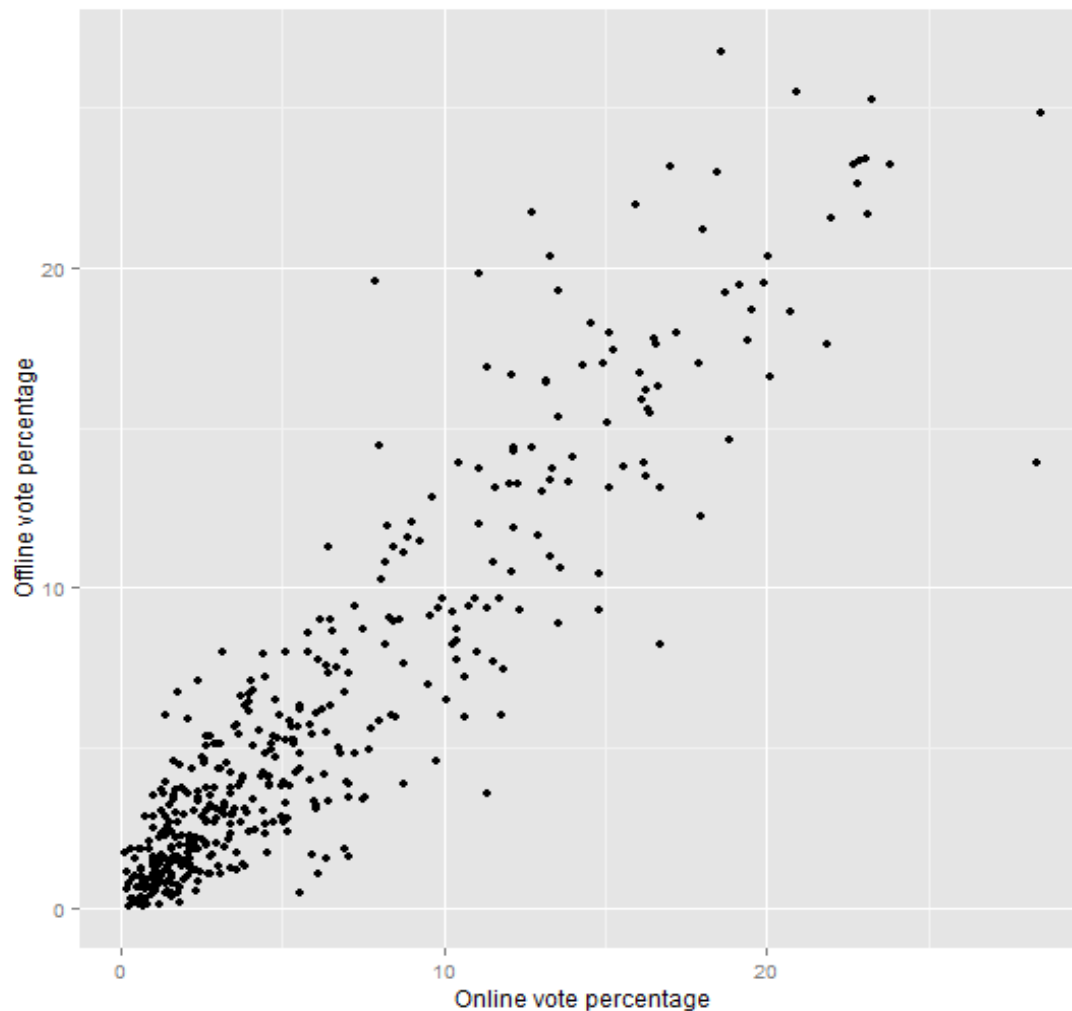
- ▶ Brazilian state of Rio Grande do Sul assigns a section of its budget to be distributed according to the results of a participatory budgeting process
- ▶ The final step of this process is a vote on the proposals for each district
- ▶ This vote is conducted both online and offline
- ▶ We conducted online (n=33,758) and offline (n=4947) exit polls of voters and were given access to the raw voter data for both voting modes



Participatory budgeting: Participant profile



Participatory budgeting Nature of demand



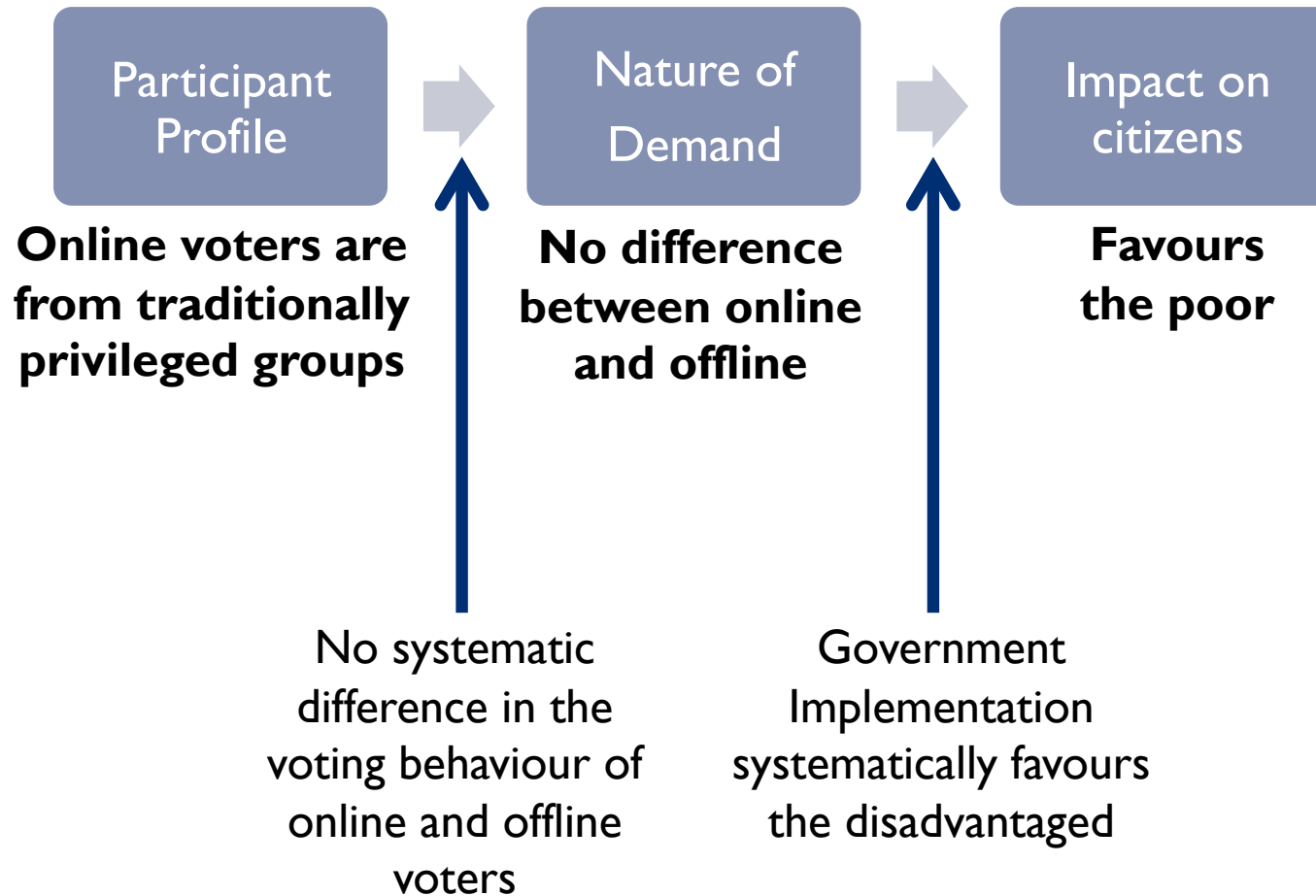
- ▶ Obtained complete individual vote data from PB online vote (1.3m votes)
 - ▶ Complete district level returns offline (5.8m votes)
 - ▶ Compared % of the vote that each proposal received in each district among online and offline voters
 - ▶ No significant difference in voting behaviour of online and offline voters
 - ▶ Possible explanation: Proposals are pre-vetted by the participatory process
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Participatory budgeting: Impact on citizens

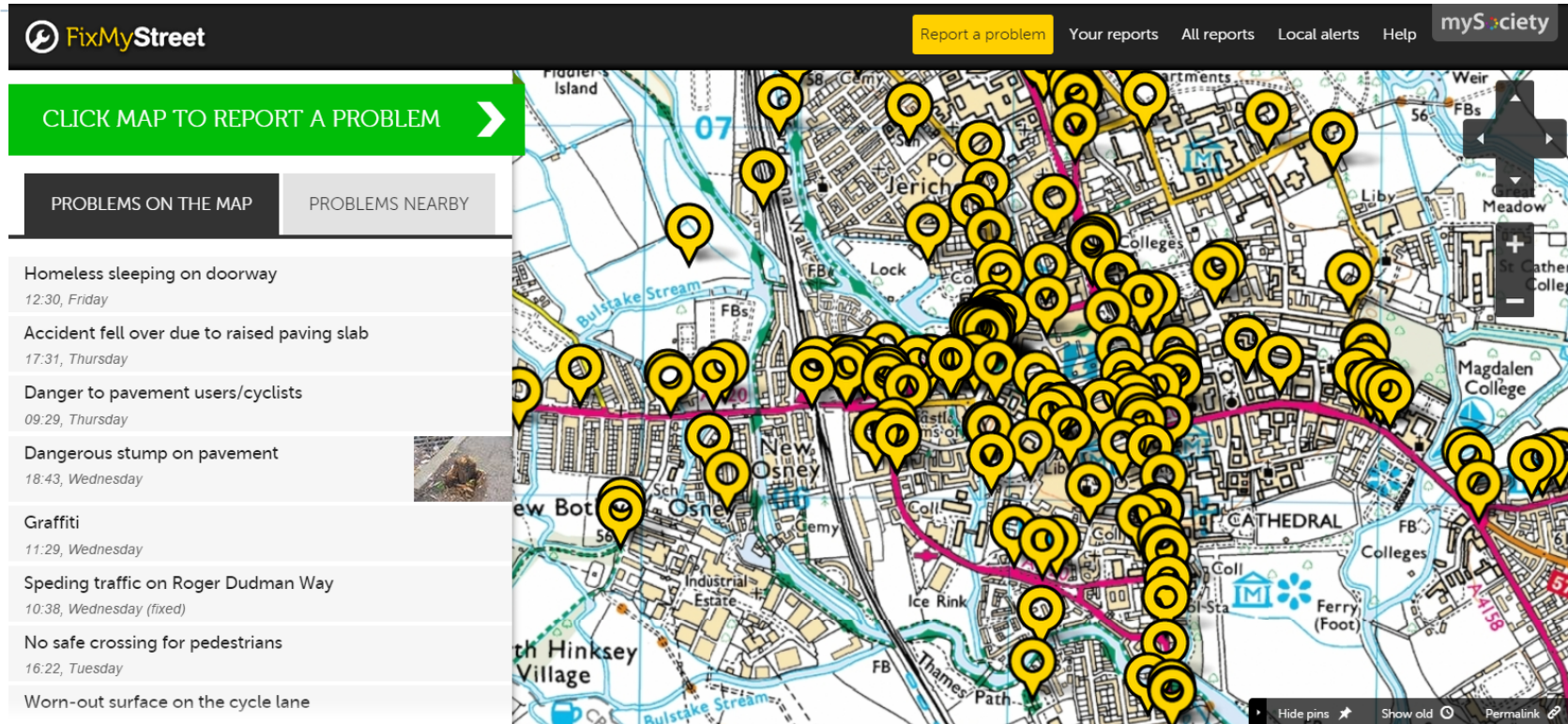
- ▶ No direct data on implementation of proposals
- ▶ Spending has to be distributed according to the distribution matrix that systematically favours poorer areas of Rio Grande do Sul



Participatory budgeting



Case study 2: Fix My Street



- ▶ UK platform for reporting street problems to local authorities run by MySociety
- ▶ Allows a user to submit a problem report that is automatically routed to the correct authority

Fix My Street: Participant profile

- Two studies of FMS participants: a URL intercept survey where around 5% of respondents were FMS users and a survey of FMS users (Cantijoch, Galandini and Gibson, 2014)
- Both studies find that
 - Older
 - More educated
 - More likely to be male
 - Less likely to be from an ethnic minority



Fix My Street: Nature of demand

- ▶ 71,493 Fix My Street user reports from 2012 merged into ward level data
- ▶ Are requests for help with problems coming from more privileged areas?
- ▶ We find:
 - ▶ Strong positive relationship with education levels
 - ▶ Strong relationship with number of young people
 - ▶ No relationship to ethnicity
 - ▶ Weak positive relationship with AB class
 - ▶ Negative relationship with home ownership

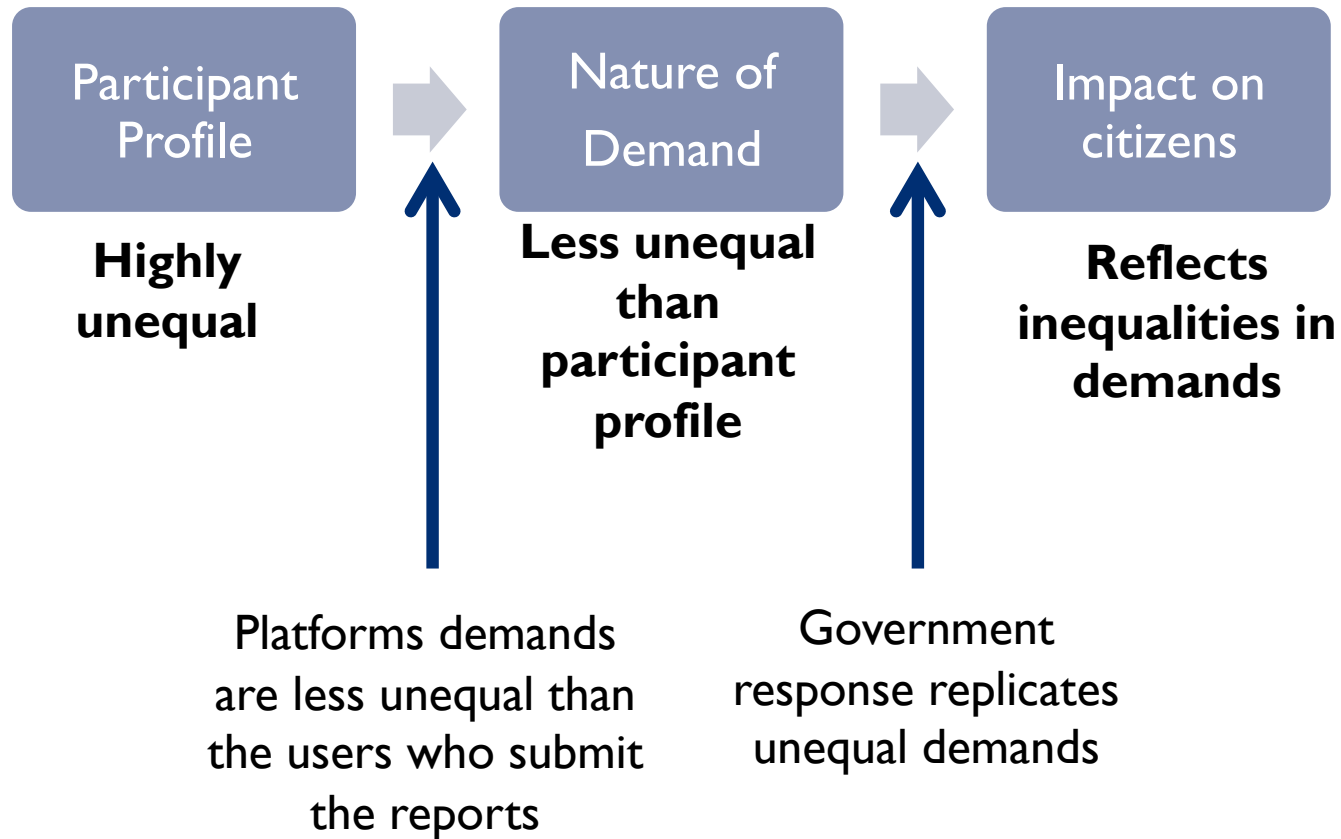


Fix My Street: Impact on citizens

- ▶ No strong evidence that government counteracts biases in reporting
- ▶ Probability of government fixing a problem within 35 days is not related to:
 - ▶ Education of the area
 - ▶ Social class of the area
 - ▶ Proportion of 18-24 year olds in area
 - ▶ Number of students in area
- ▶ Government response mostly replicates inequalities at the demand level



Fix My Street



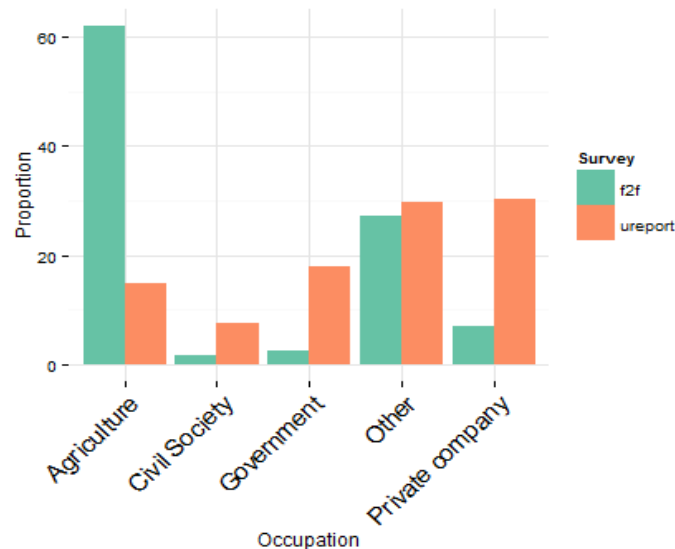
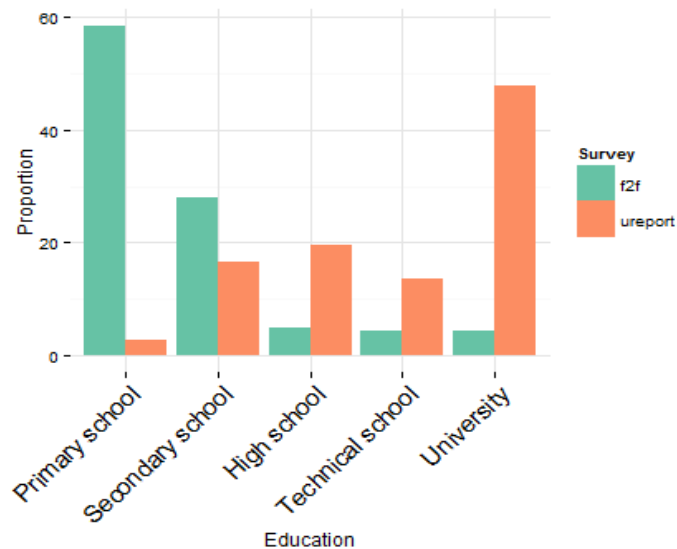
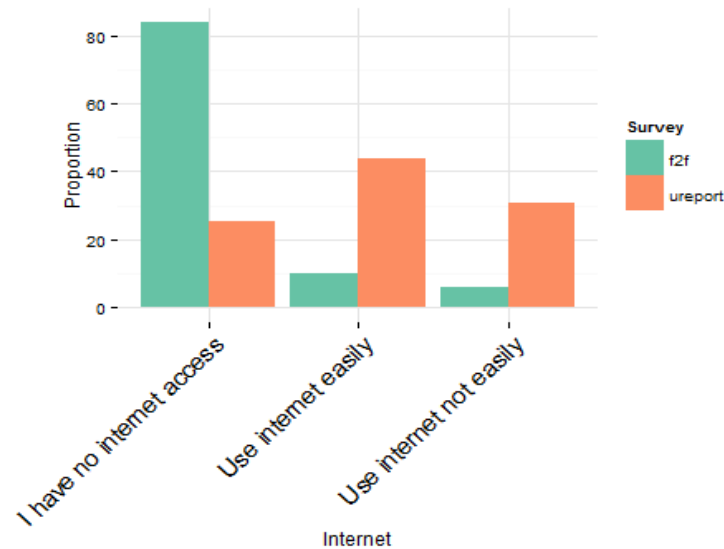
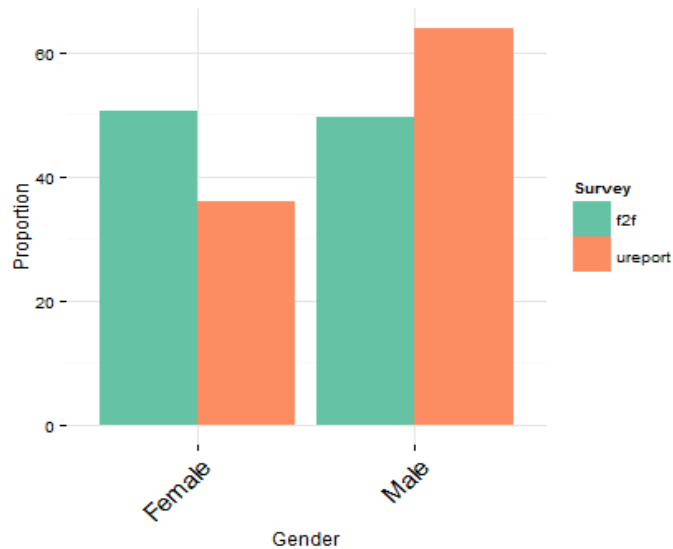
Case study 3: U-Report

The screenshot displays the U-Report website interface. At the top, a blue header features the U-Report logo (a smartphone with a 'U' and signal waves) and the text 'VOICE MATTERS'. To the right, it shows '192,232 members to date'. Below the header, a left sidebar contains navigation links: 'HOME', 'POLL RESULTS', 'ABOUT UREPORT', and 'HOW TO JOIN'. A descriptive paragraph states: 'Ureport is a free SMS-based system that allows young Ugandans to speak out on what's happening in communities across the country, and work together with other community leaders for positive change.' Below this is a 'Join Ureport' button with the text 'Text "JOIN" to 8500 IT'S FREE!'. The main content area features a 'CURRENT POLL - 26/Mar/2013' titled 'Do you know any farmers whose banana plantations or crops are infected with banana bacterial wilt disease? YES or NO', with '35,409 Responses out of 187,256 Participants (18%)'. Below the poll is a map of East Africa, showing Uganda, Rwanda, and Kenya, with various locations labeled. At the bottom left, a 'YOUR SAY:' section includes a user testimonial: 'Where do women in your community go to get antenatal care? "In our community we do not have health centre, but we have one in Alebtong which is about 25 km from our community."'

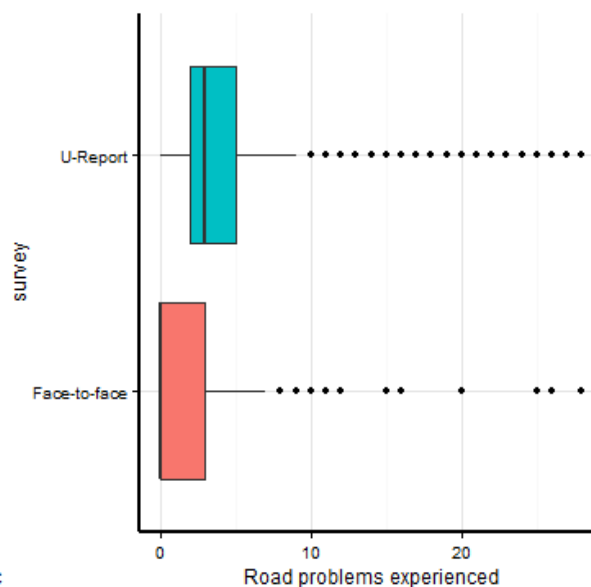
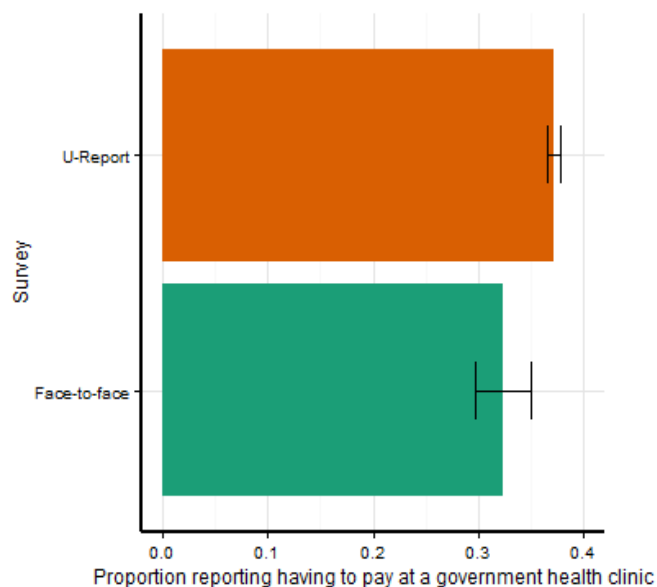
- ▶ SMS platform run by UNICEF in Uganda
- ▶ Users can report problems
- ▶ Platform is also used to poll users to gather data on need for NGOs and government

U-Report: Participant profile

- ▶ Face-to-face survey of Ugandans (n=1,185)
- ▶ SMS survey of U-Report users (n=5,693)



U-Report: Nature of demand



Average problems reported through U-Report and in the face-to-face survey

	Raw	Corrected
Health	0.476	0.532
Roads	0.298	0.347

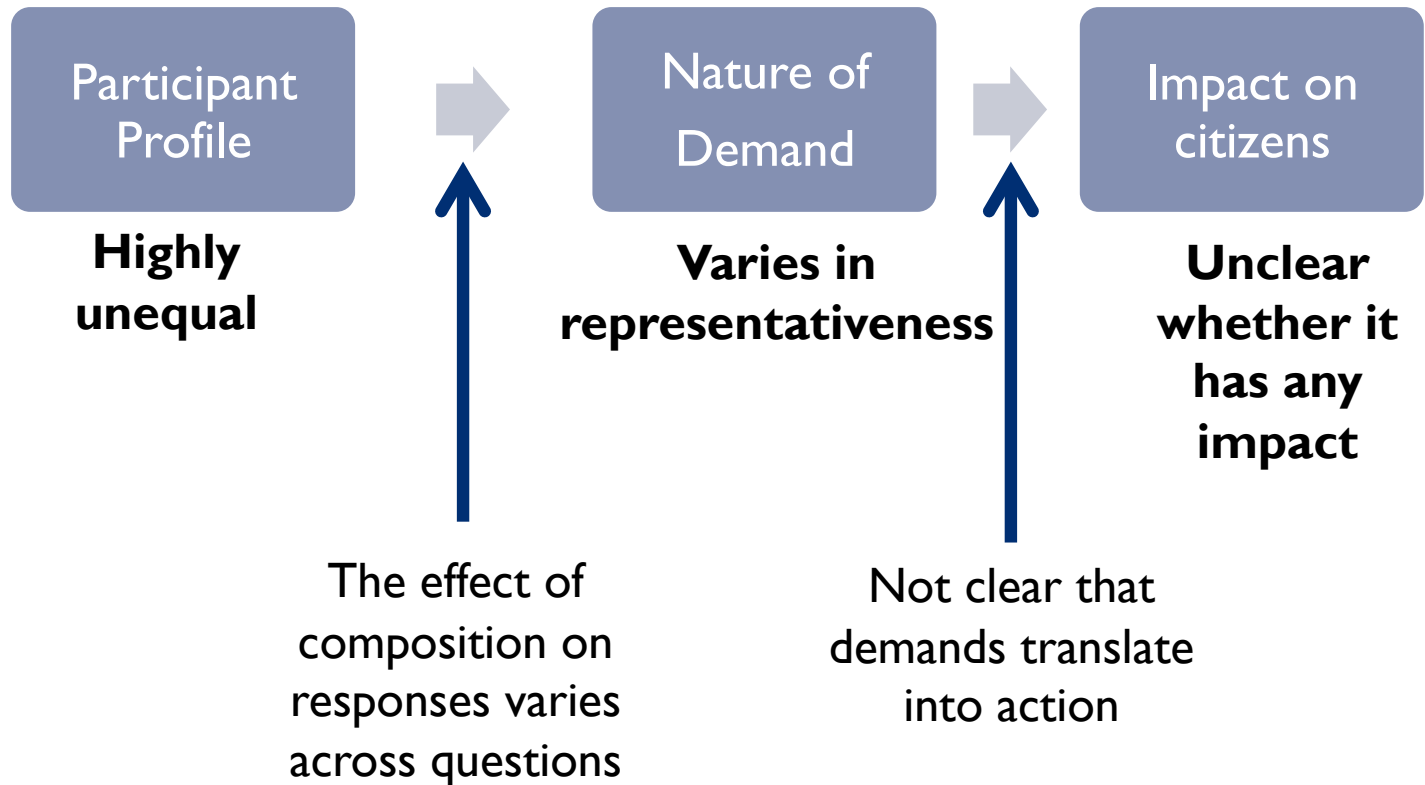
Regional correlations between problems reported through U-Report and problems reported in face-to-face survey

U-Report: Impact on citizens

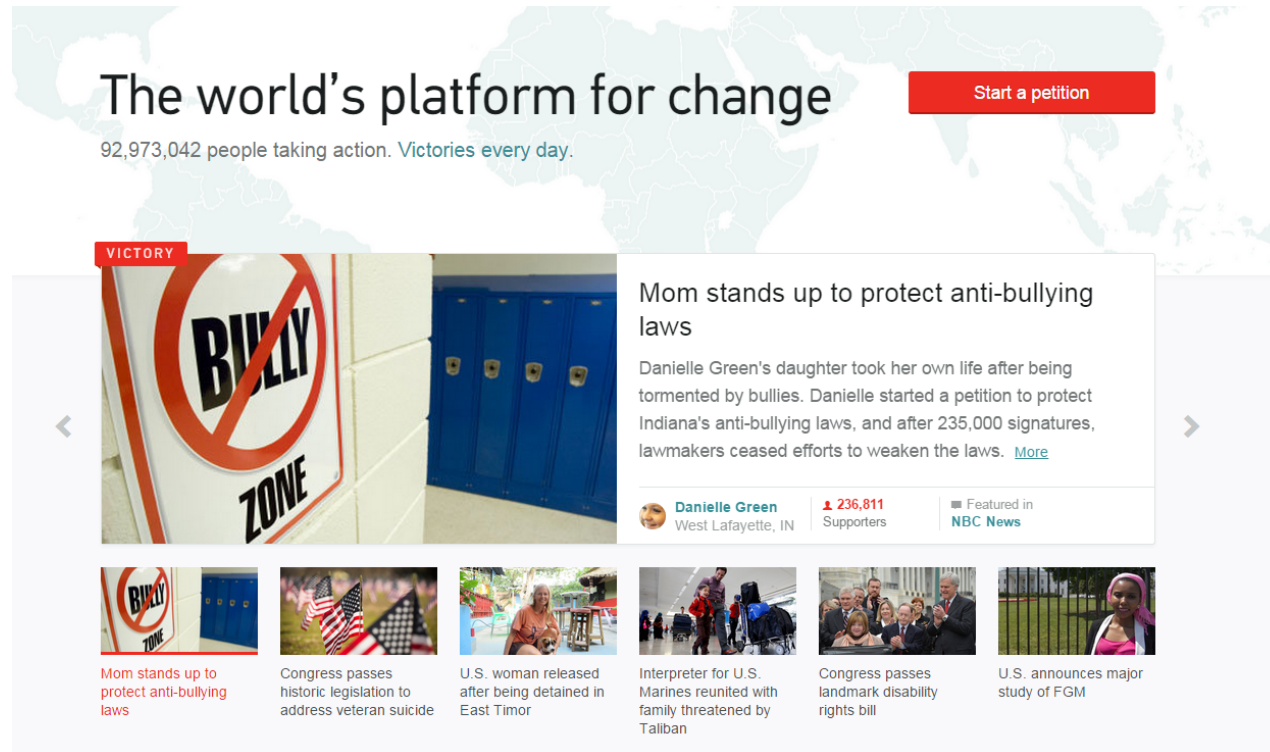
- ▶ Unclear whether there is much impact on citizens as the result of U-Report
- ▶ U-Report users mostly unsure about the impact it has
- ▶ 4/27 MPs said that it influenced their decisions or actions in some way
- ▶ Not systematically integrated into government or NGO's decision making or resource allocation



U-Report



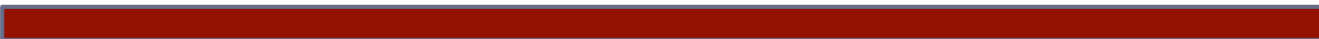
Case study 4: Change.org



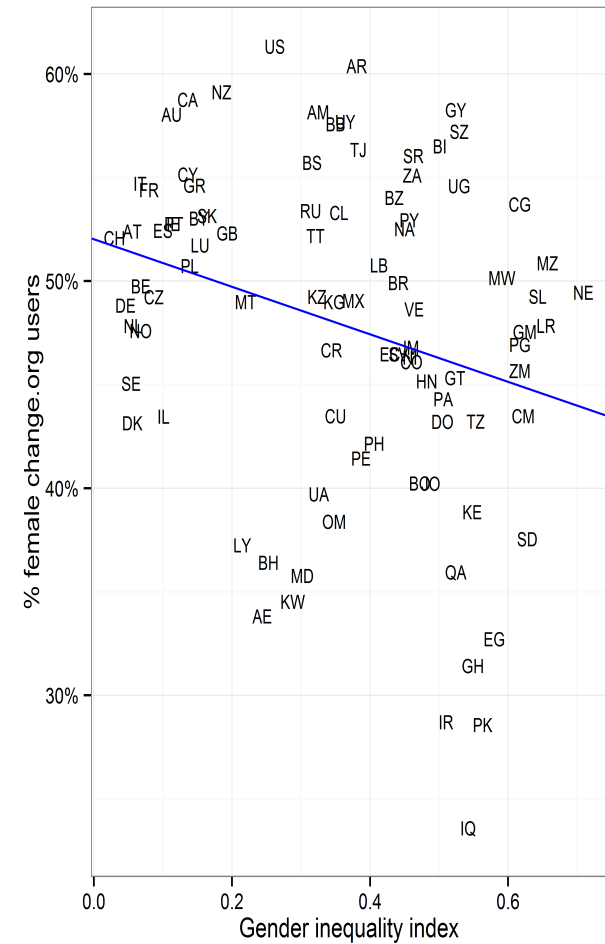
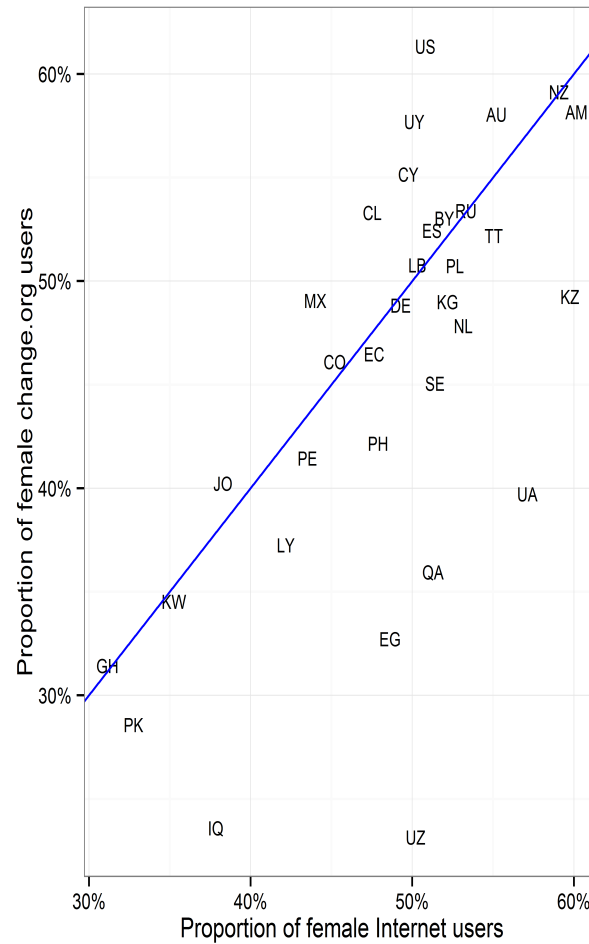
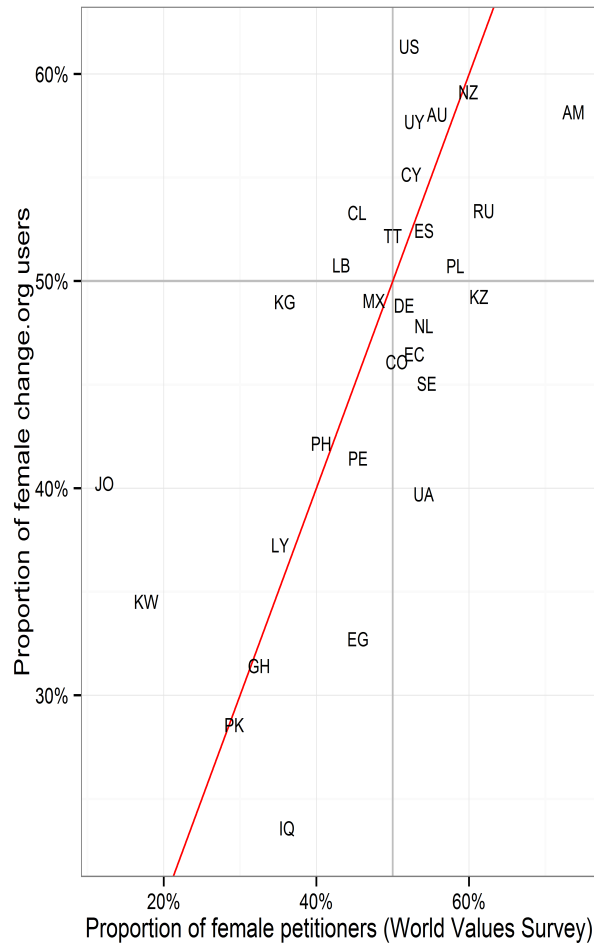
- ▶ Largest online petition platform: 92 million users
- ▶ Users can create a petition on any topic
- ▶ 4716 petitions currently categorized as “victory”

Change.org: Participant profile I

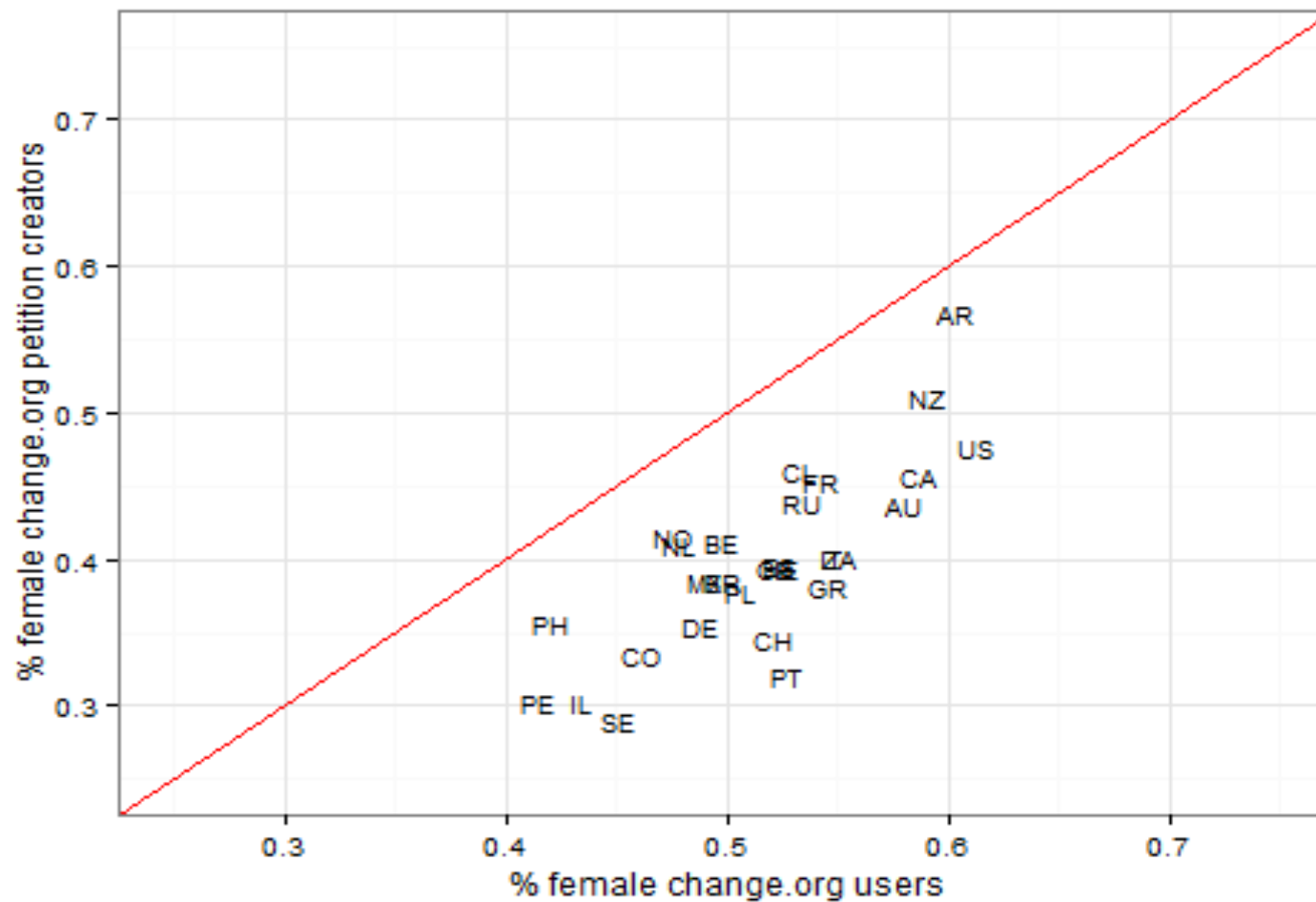
- ▶ Downloaded 3.9 million change.org users' data using open API
- ▶ Used automated gender coding to assign a probable gender to each user
- ▶ We have complete data on what petitions each user signs, creates and what the content of those petitions are and whether the petition is categorised as successful



Change.org: Participant profile II



Change.org: Participant profile III



Change.org: Nature of demand

Category	Female created	Male created	Total created	Topics of petition created by men and women
Human Rights	17.3	20.9	19.7	
Economic Justice	11.6	19.9	14.1	
Education	11.8	12.3	11.4	
Animals	18	6.4	11.8	
Criminal Justice	10.3	10.4	9.7	
Environment	7.7	9.9	9.4	
Health	8.7	7	7.4	
Gay Rights	3	5.1	4.8	
Women's Rights	4.8	1.9	3.7	
Sustainable Food	2	1.6	2	
Immigrant Rights	1.7	1.5	1.8	
Human Trafficking	1.1	0.8	1	
End Sex Trafficking	0.6	0.7	1	
Other	1	1.1	2.3	



Change.org: Impact on citizens I

Category	Female created	Male created	Total created	Signatures	Victories
Human Rights	17.3	20.9	19.7	18.3	16.9
Economic Justice	11.6	19.9	14.1	10.5	9.8
Education	11.8	12.3	11.4	6.2	14.6
Animals	18	6.4	11.8	15.2	15.3
Criminal Justice	10.3	10.4	9.7	10.4	7.2
Environment	7.7	9.9	9.4	10.5	9
Health	8.7	7	7.4	6.4	7.8
Gay Rights	3	5.1	4.8	6	6.1
Women's Rights	4.8	1.9	3.7	8.9	4.6
Sustainable Food	2	1.6	2	1.9	1.8
Immigrant Rights	1.7	1.5	1.8	1.6	4.1
Human Trafficking	1.1	0.8	1	3.9	2.5
End Sex Trafficking	0.6	0.7	1	0.1	0.2
Other	1	1.1	2.3	0.2	0.1

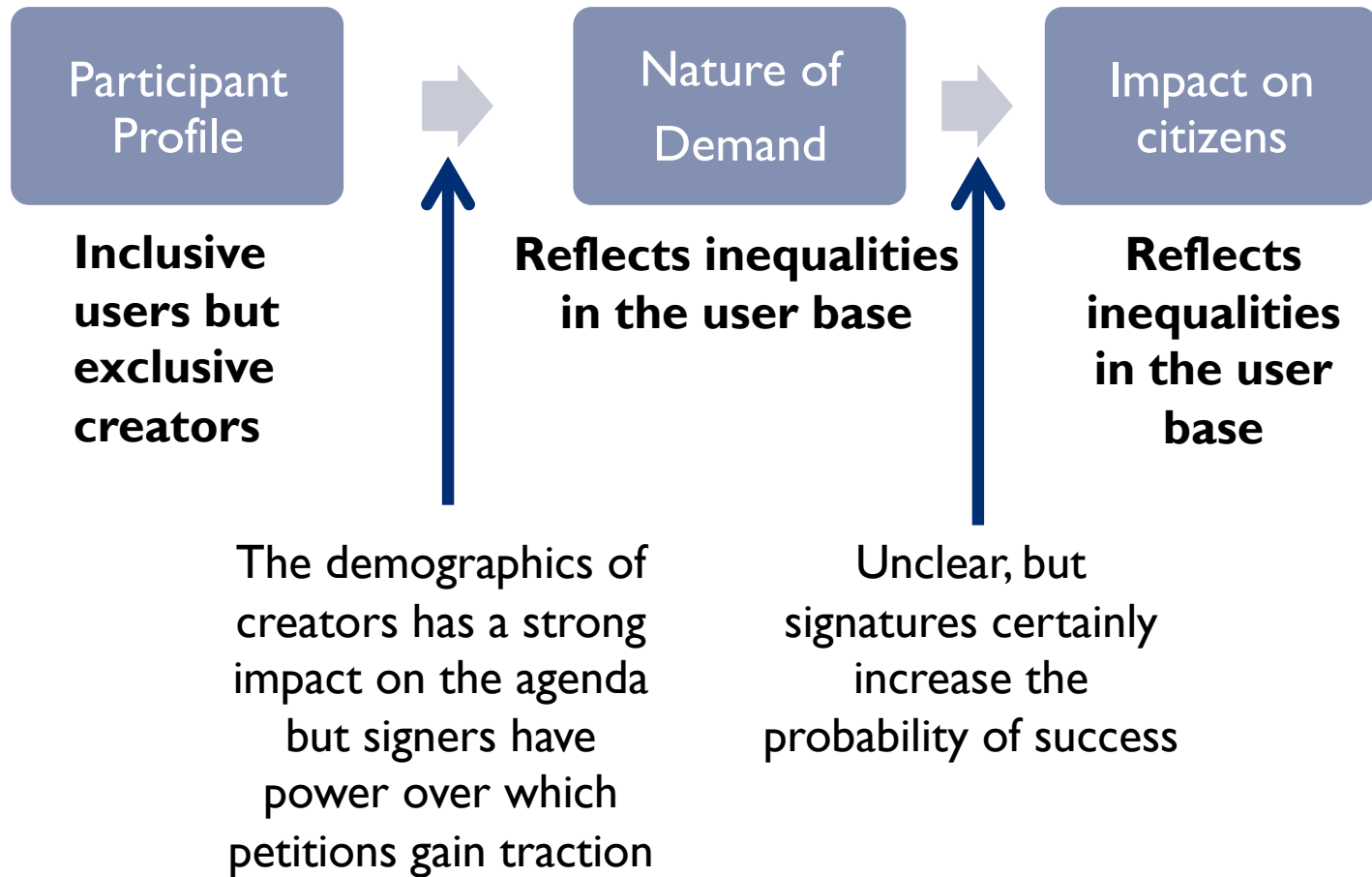


Change.org: Impact on citizens II

- ▶ There is gender inequality in terms of who creates petitions
- ▶ This does change the issue agenda of created petitions
- ▶ But not that much in terms of who signs them
- ▶ The signers push the agenda back towards gender parity
- ▶ And government response seems to generally follow the categories that get the most signatures



Change.org



The importance of institutional design

- ▶ Platforms differ in how much control the participants have over the policy choices they are trying to influence
- ▶ The only platform that followed the assumed route of simple links between inequality in participants, demands and impact was change.org



Conclusion

- ▶ The participation literature (online and off) has often assumed a straightforward link profile › demand › impact (Lijphart 1997, Schlozman et al. 2010)
- ▶ Our findings show that citizens who engage online **are** systematically more privileged than the population or offline participants
- ▶ However, the consequences of this vary depending on the linkage between participant profile and the demands that are made through the platform
- ▶ Government response also has the potential to change how unequal participation will affect outcomes, but there generally appears to be a tighter linkage between the demands made on a platform and the actions taken by government
- ▶ Our findings thus suggest the need of a new methodological approach that look beyond the profile of users and also to the institutional design and the government's response



References

- ▶ Lijphart, A. (1997). Unequal Participation: Democracy's Unresolved Dilemma Presidential Address, American Political Science Association, 1996. American political science review, 91(01), 1-14.
- ▶ Schlozman, Kay Lehman, Sidney Verba, and Henry E. Brady. 2010. "Weapon of the Strong? Participatory Inequality and the Internet." *Perspectives on Politics* 8 (02): 487–509.



Bonus slides

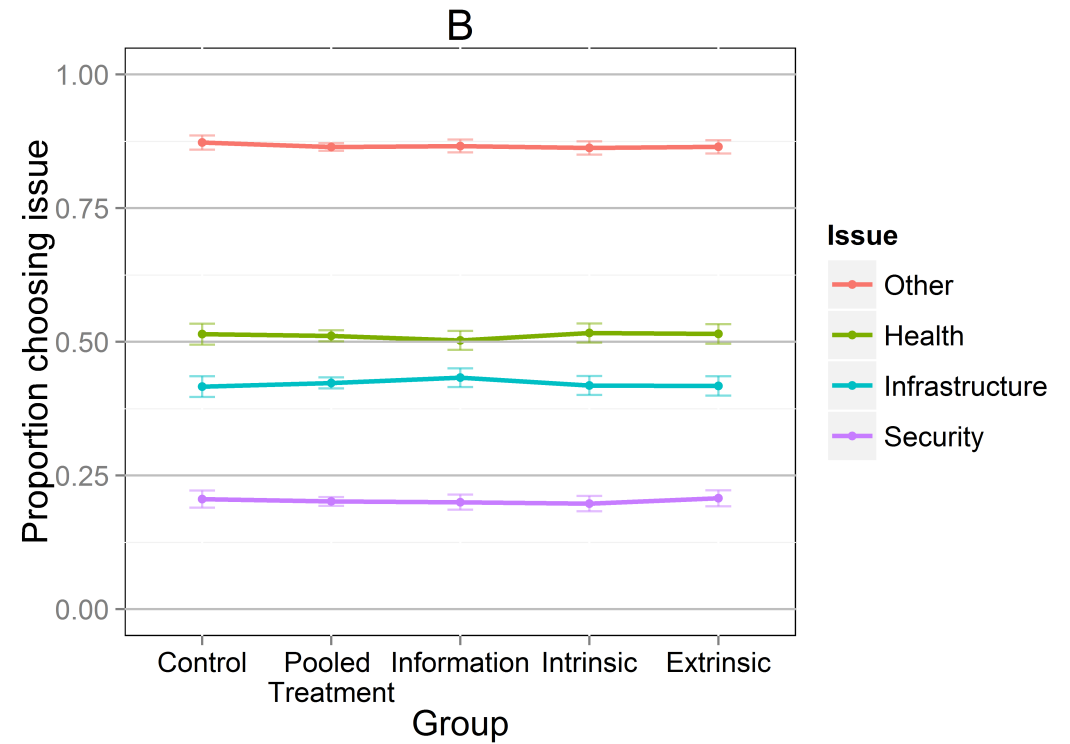
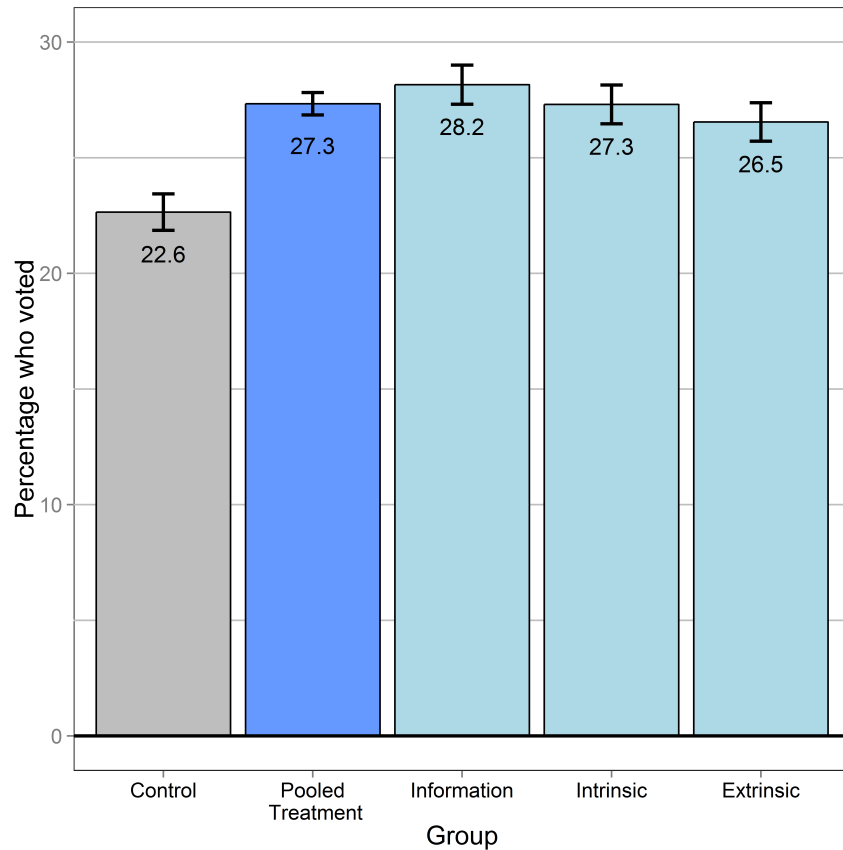


Other case studies

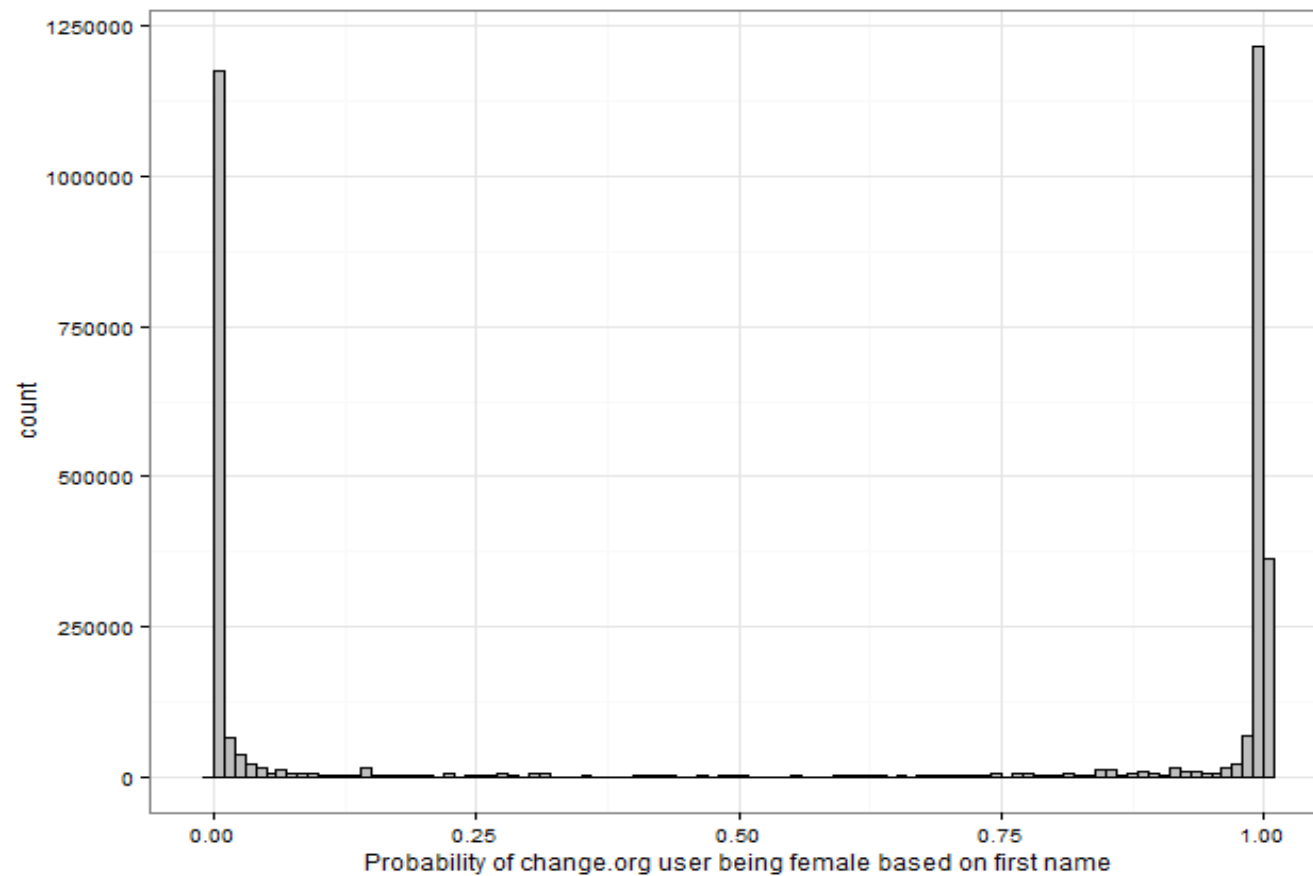
- ▶ I Paid A Bribe (India)
- ▶ Fix My Street (Georgia)
- ▶ Brazilian Freedom of Information Portal
- ▶ Majivoice (Kenya)
- ▶ LAPOR (Indonesia)
- ▶ See Click Fix (US)



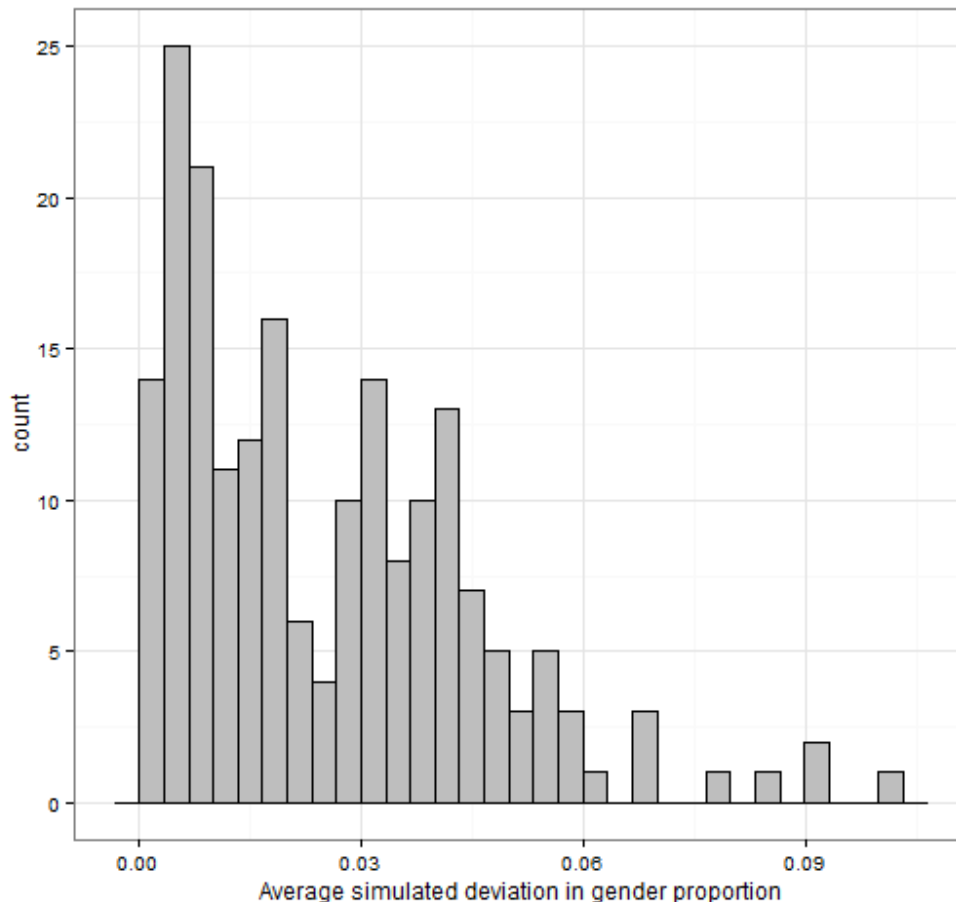
GOTV experiments in participatory budgeting



Change.org Gender coding accuracy I

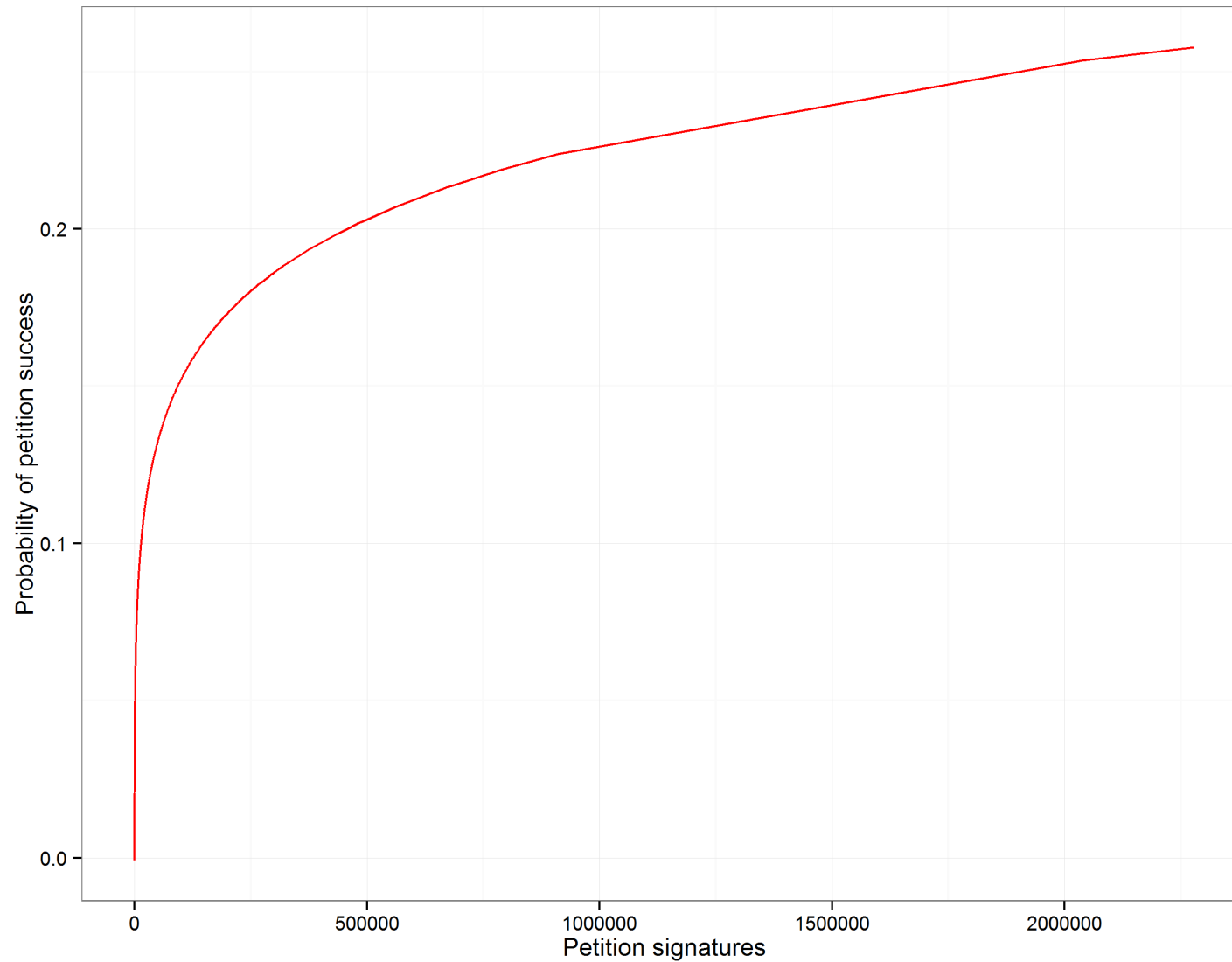


Change.org Gender coding accuracy II



- ▶ Randomly simulate error into coding dictionary
- ▶ Assume that name is more likely to have large deviation across countries if it is closer to 50% in US
- ▶ Mean expected error: 1.9 percentage points

Change.org Signatures predict success



Effect of responsiveness in change.org

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(Intercept)	5.45 (.001)	.02 (.001)	5.41 (.001)	.03 (.001)	5.46 (.001)	.02 (.001)	5.43 (.001)	.02 (.001)
Log Signatures	.02 (1e-4)	.02 (1e-4)	.02 (1e-4)	.02 (1e-4)	.02 (1e-4)	.02 (1e-4)	.002 (1e-4)	.02 (1e-4)
Victory	.23 (3e-3)	.27 (.003)	.07 (4e-3)	.11 (.004)	.24 (3e-3)	.27 (3e-3)	.08 (3e-3)	.11 (4e-3)
Log Sigs*Vict	-.03 (2e-4)	-.03 (3e-4)	-.009 (4e-4)	-.01 (4e-4)	-.03 (2e-4)	-.03 (3e-4)	-.01 (4e-4)	-.01 (4e-4)
Date FE	Yes	No	Yes	No	Yes	No	Yes	No
<i>N</i>	22292 62	22292 62	20260 64	20260 64	22128 84	22128 84	20096 86	20096 86

