Willingness to participate in a metered online panel

Melanie Revilla, Mick P. Couper, Ezequiel Paura, Carlos Ochoa

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1RECSM-Universitat Pompeu Fabra; 2Survey Research Center, University of Michigan; 3Netquest
**Metered data** = passive data coming from a tracking application (called a "meter") installed by the participants on their devices to record their online activities

**Metered online panel** = group of people who 1) actively answer web surveys, 2) have accepted installation of a meter on at least one of their devices, and 3) send (passively) information through the meter
Introduction

Why is it attractive to have such a panel?

1. Avoid problems of memory limitations and/or satisficing

2. Decrease respondent burden by reducing number of survey questions

3. Almost no effort (setting up) for the participants (passive data collection)

4. Data collected continuously once installed: can be used for different projects

5. Collect new kinds of data

6. Link between different kinds of data for the same panelists
1. Selection bias in who provides meter data

→ Participation depends on \textit{willingness} of people to install the meter

2. Observation of only part of the activity

3. Shared devices

4. Limited information available

5. Difficulties in analyzing the data

[Revilla, Ochoa, Loewe, 2017]
Introduction

**Previous research on willingness**

<table>
<thead>
<tr>
<th>Study</th>
<th>Stated willingness</th>
<th>Observed willingness</th>
</tr>
</thead>
<tbody>
<tr>
<td>de Reuver &amp; Bouwman (2015)</td>
<td>31%</td>
<td>14%</td>
</tr>
<tr>
<td>Van Duivenvoorde &amp; Dillon (2015)</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Kissau &amp; Fischer (2016)</td>
<td>23% main sample</td>
<td>10% main sample</td>
</tr>
<tr>
<td></td>
<td>8% boost sample</td>
<td>3% boost sample</td>
</tr>
<tr>
<td>Revilla, Couper &amp; Ochoa (2018)</td>
<td>18% on smartphone</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17% on PC</td>
<td></td>
</tr>
</tbody>
</table>

Main reasons unwillingness: privacy/trust

More research needed
Goals of this presentation

Three main research questions

**RQ1. To what extent are people willing to install a meter?**
How many panelists were invited to install the meter, accepted, sent data at least once, still sending data 3 and 6 months later
Acceptance & participation rates

**RQ2. On which devices did they install the meter?**
Proportions of each device combination out of all meters installed
Number of devices on which the panelists have installed the meter

**RQ3. To what extent do panelists who installed the meter differ from those who were invited but did not install it?**
In terms of socio-demographic characteristics
In terms of panel loyalty
Data analysed

Netquest metered panels

Netquest online panels
- Started in 2006
- In 23 countries

Netquest metered panels
- Started in 2014
- In 11 countries

Data for 9 countries
- Argentina, Brazil, Chile, Colombia, Mexico, Peru, Portugal, Spain & USA

Look at panelists invited in 2017
- Maximize number of countries with data allowing to have information for all panelists 6 months after they installed the meter
Data analysed

Meter invitation process

Usual invitation process to the meter:

1. Identify the need for more panelists with a meter
2. Select panelists with more than 10 surveys completed
3. Run a machine learning algorithm that returns a probability of installing the meter for each of the selected panelists
4. Invite all panelists above a given threshold depending on the need and on quotas

For USA, different invitation process:

Need to quickly create the metered panel so invited anyone who has completed at least one survey
1. At the end of a survey, panelists are asked if they would like to become “Premium” panelists.

2. If they click on “Become Premium”, they get details about what this is.

3. If they say “yes”, they have to install the meter on at least one device.

The meter sends data until the panelists cancel the installation.
Incentives received:

+ 100 points for installing
+ 5 points extra for each survey answered per device with the meter (maximum of 15 points)

Same number of points across countries
The goal is that panelists can get the same with the same effort in all countries
Still the value of the points is slightly different

**Example**: number of points needed for a cinema ticket

<table>
<thead>
<tr>
<th></th>
<th>Argentina</th>
<th>Brazil</th>
<th>Chile</th>
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<th>Peru</th>
<th>Portugal</th>
<th>Spain</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Points</td>
<td>100</td>
<td>120</td>
<td>90</td>
<td>80</td>
<td>80</td>
<td>100</td>
<td>115</td>
<td>140</td>
<td>170</td>
</tr>
</tbody>
</table>
## Willingness to install a meter

From invitation to participation

<table>
<thead>
<tr>
<th>Number of...</th>
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<tbody>
<tr>
<td>Loyal panelists</td>
<td>79,376</td>
<td>104,340</td>
<td>85,557</td>
<td>58,317</td>
<td>106,583</td>
<td>28,139</td>
<td><strong>17,296</strong></td>
<td><strong>126,961</strong></td>
<td>20,727</td>
</tr>
<tr>
<td>Invited</td>
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<td>7,980</td>
<td>4,346</td>
<td>7,448</td>
<td>12,542</td>
<td>1,800</td>
<td>2,436</td>
<td>7,764</td>
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Loyal panelists = participated in at least 10 surveys
### Willingness to install a meter

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<td>2,436</td>
<td>7,764</td>
<td><strong>59,936</strong></td>
</tr>
<tr>
<td>Accepted</td>
<td>3,594</td>
<td>4,116</td>
<td>2,182</td>
<td>4,001</td>
<td>6,204</td>
<td><strong>769</strong></td>
<td>1,148</td>
<td>3,113</td>
<td><strong>16,828</strong></td>
</tr>
</tbody>
</table>

*Loyal panelists = participated in at least 10 surveys*
### Willingness to install a meter

#### From invitation to participation

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<td>4,001</td>
<td>6,204</td>
<td>769</td>
<td>1,148</td>
<td>3,113</td>
<td>16,828</td>
</tr>
<tr>
<td>Sent data at least once</td>
<td>2,835</td>
<td>3,309</td>
<td>1,611</td>
<td>3,133</td>
<td>4,758</td>
<td>535</td>
<td>827</td>
<td>2,277</td>
<td>12,207</td>
</tr>
<tr>
<td>Still sent data 3 months later</td>
<td>1,586</td>
<td>1,652</td>
<td>887</td>
<td>1,887</td>
<td>2,481</td>
<td>301</td>
<td>504</td>
<td>1182</td>
<td>2,631</td>
</tr>
<tr>
<td>Still sent data 6 months later</td>
<td>1,320</td>
<td>1,273</td>
<td>686</td>
<td>1,563</td>
<td>1,873</td>
<td>254</td>
<td>402</td>
<td>961</td>
<td>1,824</td>
</tr>
</tbody>
</table>

*Loyal panelists = participated in at least 10 surveys*
Willingness to install a meter

From invitation to participation

Acceptance rate = \( \frac{\text{number accepted} \times 100}{\text{number invited}} \)

Participation rate = \( \frac{\text{number sent data at least once} \times 100}{\text{number invited}} \)

Participation 3 (or 6) months = \( \frac{\text{number still send data} \times 100}{\text{number invited}} \)
## Willingness to install a meter

### From invitation to participation

<table>
<thead>
<tr>
<th>Country</th>
<th>Argentina</th>
<th>Brazil</th>
<th>Chile</th>
<th>Colombia</th>
<th>Mexico</th>
<th>Peru</th>
<th>Portugal</th>
<th>Spain</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptance rate</td>
<td>49.0</td>
<td>51.6</td>
<td>50.2</td>
<td>53.7</td>
<td>49.5</td>
<td>42.7</td>
<td>47.1</td>
<td>40.1</td>
<td>28.1</td>
</tr>
<tr>
<td>Participation rate</td>
<td>38.6</td>
<td>41.5</td>
<td>37.1</td>
<td>42.1</td>
<td>37.9</td>
<td>29.7</td>
<td>33.9</td>
<td>29.3</td>
<td>20.4</td>
</tr>
<tr>
<td>Participation 3 months</td>
<td>21.6</td>
<td>20.7</td>
<td>20.4</td>
<td>25.3</td>
<td>19.8</td>
<td>16.7</td>
<td>20.7</td>
<td>15.2</td>
<td>4.4</td>
</tr>
<tr>
<td>Participation 6 months</td>
<td>18.0</td>
<td>16.0</td>
<td>15.8</td>
<td>21.0</td>
<td>14.9</td>
<td>14.1</td>
<td>16.5</td>
<td>12.4</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Devices on which they install the meter

Proportions of each device out of all meter installed

PC+S: from 9.4% (USA) to 43.1% (Brazil)

Only PC: from 21.2% (Chile) to 45.6% (Portugal)

Only S: from 13.5% (Portugal) to 35.2% (USA)
### Devices on which they install the meter

#### Number of devices on which panelists installed the meter

<table>
<thead>
<tr>
<th>Installed on</th>
<th>Argentina</th>
<th>Brazil</th>
<th>Chile</th>
<th>Colombia</th>
<th>Mexico</th>
<th>Peru</th>
<th>Portugal</th>
<th>Spain</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 device (%)</td>
<td>42.0</td>
<td>41.3</td>
<td>50.8</td>
<td>41.7</td>
<td>46.8</td>
<td>51.0</td>
<td>54.5</td>
<td>53.9</td>
<td>81.1</td>
</tr>
<tr>
<td>2 devices (%)</td>
<td>33.8</td>
<td>37.8</td>
<td>30.1</td>
<td>32.7</td>
<td>32.1</td>
<td>33.5</td>
<td>26.5</td>
<td>27.8</td>
<td>12.5</td>
</tr>
<tr>
<td>≥3 devices (%)</td>
<td>24.2</td>
<td>20.9</td>
<td>19.1</td>
<td>25.6</td>
<td>21.0</td>
<td>15.5</td>
<td>19.0</td>
<td>18.3</td>
<td>6.3</td>
</tr>
</tbody>
</table>
Panelists who installed the meter vs were invited but did not install it

**Socio-demographic characteristics**

<table>
<thead>
<tr>
<th></th>
<th>Argentina</th>
<th>Brazil</th>
<th>Chile</th>
<th>Colombia</th>
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<th>Peru</th>
<th>Portugal</th>
<th>Spain</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installed % men</td>
<td>52.2</td>
<td>60.8</td>
<td>59.1</td>
<td>48.1</td>
<td>47.1</td>
<td>57.8</td>
<td>45.3</td>
<td>51.0</td>
<td>49.7</td>
</tr>
<tr>
<td>Not Installed % men</td>
<td>50.5</td>
<td>61.2</td>
<td>54.6</td>
<td>44.7</td>
<td>45.1</td>
<td>57.4</td>
<td>42.0</td>
<td>47.1</td>
<td>45.1</td>
</tr>
<tr>
<td>Installed % univ.</td>
<td>23.3</td>
<td>38.3</td>
<td>3.1</td>
<td>69.0</td>
<td>1.9</td>
<td>46.5</td>
<td>59.3</td>
<td>25.5</td>
<td>33.4</td>
</tr>
<tr>
<td>Not Installed % univ</td>
<td>23.4</td>
<td>34.3</td>
<td>3.4</td>
<td>62.8</td>
<td>2.6</td>
<td>34.7</td>
<td>50.1</td>
<td>24.6</td>
<td>22.4</td>
</tr>
<tr>
<td>Installed Median age</td>
<td>31</td>
<td>29</td>
<td>28</td>
<td>28</td>
<td>26</td>
<td>27</td>
<td>44</td>
<td>42</td>
<td>34</td>
</tr>
<tr>
<td>Not Installed Median age</td>
<td>36</td>
<td>28</td>
<td>31</td>
<td>30</td>
<td>25</td>
<td>27</td>
<td>53</td>
<td>44</td>
<td>40</td>
</tr>
<tr>
<td>Installed Median cat. income</td>
<td>33-40.9</td>
<td>2.8-6</td>
<td>480-830</td>
<td>2,000-4,000</td>
<td>5.5-11</td>
<td>2.5-5</td>
<td>1.5-1.8</td>
<td>2-2.5</td>
<td>35-45</td>
</tr>
<tr>
<td>Not Installed Median cat. income</td>
<td>41-49</td>
<td>2.8-6</td>
<td>480-830</td>
<td>2,000-4,000</td>
<td>5.5-11</td>
<td>2.5-5</td>
<td>1.5-1.8</td>
<td>2-2.5</td>
<td>35-45</td>
</tr>
</tbody>
</table>

*Note*: income expressed in thousands

**Installed (compared to non installed)**: higher percentage of men (in 8 countries) and of people with university degree (in 6 countries); median age lower (in 6 countries); and median income similar (except for one country).
Panelists who installed the meter vs were invited but did not install it

## Panel loyalty

<table>
<thead>
<tr>
<th></th>
<th>Argentina</th>
<th>Brazil</th>
<th>Chile</th>
<th>Colombia</th>
<th>Mexico</th>
<th>Peru</th>
<th>Portugal</th>
<th>Spain</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No. days in panel</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installed</td>
<td>1,094</td>
<td>906</td>
<td>892</td>
<td>1,192</td>
<td>790</td>
<td>1,126</td>
<td>1,571</td>
<td>1,233</td>
<td>450</td>
</tr>
<tr>
<td>Not Installed</td>
<td>1,042</td>
<td>1,033</td>
<td>775</td>
<td>1,192</td>
<td>671</td>
<td>976</td>
<td>1,566</td>
<td>1,177</td>
<td>450</td>
</tr>
<tr>
<td><strong>Survey participation rate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installed</td>
<td>0.86</td>
<td>0.80</td>
<td>0.76</td>
<td>0.85</td>
<td>0.80</td>
<td>0.76</td>
<td>0.88</td>
<td>0.87</td>
<td>0.50</td>
</tr>
<tr>
<td>Not Installed</td>
<td>0.70</td>
<td>0.62</td>
<td>0.52</td>
<td>0.68</td>
<td>0.48</td>
<td>0.55</td>
<td>0.83</td>
<td>0.75</td>
<td>0.13</td>
</tr>
</tbody>
</table>

**Really different:** could explain the other differences

**Installed:** more days in the panel (median) in 6 countries; and higher survey participation rates in all countries.
Conclusions

Main results

**RQ1: willingness**
Participation rate: from 20 to 42% → higher than expected from previous literature
In most countries, participation after 3 months is around 20-25%
The decline between 3 and 6 months is not that high (around 5%)
However, the number of metered panelists still present after 6 months is overall quite small

**RQ2: which devices**
Quite similar proportions of participants installed the meter on PC+Smartphone, and on only PC or only smartphone
Independent of the device type, 20-25% of participants have installed the meter in 3 or more devices in a majority of countries

**RQ3: differences those who installed vs. did not install**
Group who installed: higher percentage of men and people with university degree; median age lower; median income similar; higher panel loyalty

**Overall**
Clear differences across countries, mainly USA vs. the rest
Most probably due to differences in the invitation process + cultural differences too
Conclusions

Limits / further research

• Difficult to compare countries
  – Panels started at different points in time
  – Different needs for panelists with a meter
  – Different invitation process

• No information about the number or type of devices the participants have

• Limited background variables to be compared

• Strategies to improve participation?

• Strategies to correct for selection bias?
Thank you for your attention!

Questions?

Contact author: melanie.revilla@upf.edu
References


• Revilla, M., Couper, M.P., & Ochoa, C. (2018). Willingness of online panelists to perform additional tasks. *Methods, data, analyses*. Published online first on 05 April, 2018. DOI: [https://doi.org/10.12758/mda.2018.01](https://doi.org/10.12758/mda.2018.01)


Appendix

Screenshots Meter invitation process

You’ve successfully completed the survey

For this survey: 6

Total collected: 1,525

Earn 100 extra Shells by upgrading to Premium now.

Become Premium for free

Want to become Premium?

1. Install the Nicestats Program on all your devices to share your internet usage.
   More Info

2. Earn 100 welcome Shells and unlock exclusive gifts.
   More Info

3. Earn up to 15 extra Shells for each survey you take.
   More Info

I have read and accept the Terms of Use and the Privacy Policy.

Not now

Yes
Appendix

Screenshots Meter invitation process

Install the Nicestats Program on your computer, smartphone and tablet, to share your internet usage with us. The information received will be strictly protected, and only used for research purposes. You will be able to pause the Program or deactivate it at any time.

Earn 100 Shells once your first device is sharing your internet usage. And be rewarded with exclusive gifts, accessible only to Premium members.

For every different device (computer, smartphone, and tablet) in which you install the Nicestats Program, and continue sharing your internet usage, you’ll get 5 extra Shells per survey (up to 15 extra Shells per survey).