Gender Gaps Seen Through Advertising Data

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Joint work with Ridhi Kashyap, Masoomali Fatehkia, Ian Knowles

www.digitalgendergaps.org

Official ITU data
Model predictions
Joint work with Ridhi Kashyap, Masoomali Fatehkia, Douglas Leasure

Subnational Variation Across Africa

Covers 90% of population

Missing:
- Sudan
- Areas w/ < 1000 women on FB
Where is your target audience?

Locations (Recent or Permanent)
- United States

Who is your target audience?

Include people who have **ANY** of the following attributes:

**Member Gender**
- Female

By checking the box to enable this field, I certify that I will not use LinkedIn to discriminate based on gender or other protected characteristics in ads relating to employment, housing, education or credit. Learn more

AND also have **ANY** of the following attributes:

**Company Industries**

Forecasted Results

- Target audience size: 4,200,000+
- Segment breakdown:
  - Business Development: 10%
  - Operations: 10%
  - Sales: 10%
  - Engineering: 9%
  - Information Technology: 9%
Gendered Social Capital in IT

LinkedIn users in the US, currently working in IT and not at Big Five

Social connections to Big Five

Joint work with Temesgen Tewolde, Ridhi Kashyap, Florianne Verkroost
# Social Capital and the Career Ladder

LinkedIn users living in the US, working in Information Technology & Services sector, not working for Amazon, Apple, Facebook, Google, or Microsoft (Big Five), disaggregated by inferred gender and seniority

<table>
<thead>
<tr>
<th>Seniority</th>
<th>%-female</th>
<th>%-male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry level</td>
<td>37.3%</td>
<td>57.3%</td>
</tr>
<tr>
<td>Senior</td>
<td>34.1%</td>
<td>58.2%</td>
</tr>
<tr>
<td>Manager</td>
<td>34.2%</td>
<td>61.0%</td>
</tr>
<tr>
<td>Director</td>
<td>29.4%</td>
<td>65.6%</td>
</tr>
<tr>
<td>VP</td>
<td>23.8%</td>
<td>75.0%</td>
</tr>
</tbody>
</table>

- Fewer women the more senior the rank.
- Connectivity gap lower at more senior ranks.

Joint work with Temesgen Tewolde, Ridhi Kashyap, Florianne Verkroost

LinkedIn users living in the US, working in Information Technology & Services sector, not working for Amazon, Apple, Facebook, Google, or Microsoft (Big Five), disaggregated by inferred gender and seniority

The right table further disaggregates by the percentage of users who have at least one connection to a LinkedIn user at Amazon, Apple, Facebook, Google, or Microsoft.
Beware: Selection/Survivorship Bias

In Pakistan there are:
- 8.3 million women vs. 34 million men (18+) Facebook users
- This gender gap is expected based on other indicators

But, among those women who are on Facebook:
- 7.2% (600k) have access to an iOS device vs. only 5.0% (1.7M) for men
- 1.8% (150k) self-report MA/PhD vs. only 1.5% (520k) for men

Difficult to extrapolate to the “general public”
Recent Changes in Afghanistan

DAU Estimates for Women Aged 15-19 on Facebook in Afghanistan

Fall of Kabul to the Taliban

Joint work with Ridhi Kashyap, Ian Knowles
Hard to Derive Root Causes from Big Data

% women in public tweets (active engagement)

% women targetable for ads (passive engagement)

Joint work with Hamdy Mubarak, Kareem Darwish
Facebook made big mistake in data it provided to researchers, undermining academic work

Company accidentally left out half of all of its U.S. users in providing data to a research consortium