Digital Technologies, Inequality, and the Diffusion of Global Culture

UT-Austin Statistics and Data Science Seminar

Casey F. Breen[1]

October 23, 2026

[1]UT-Austin, Department of Sociology and Population Research Center

Roadmap for today's talk

1. **Mapping** subnational digital gender inequality across countries
2. **Digital diffusion** of cultural scripts about family life

Benefits of digital revolution

- The **digital revolution** has ushered in tremendous societal and economic benefits

Benefits of digital revolution

- The **digital revolution** has ushered in tremendous societal and economic benefits
  - Lower gender inequality, lower maternal/child mortality, higher contraception (Rotondi et al., 2020)

Benefits of digital revolution

- The **digital revolution** has ushered in tremendous societal and economic benefits
  - Lower gender inequality, lower maternal/child mortality, higher contraception (Rotondi et al., 2020)
  - Boost social connectivity, social learning, access to vital services (Unwin, 2009; DiMaggio and Hargittai, 2001; Suri and Jack, 2016)

Benefits of digital revolution

- The **digital revolution** has ushered in tremendous societal and economic benefits
  - Lower gender inequality, lower maternal/child mortality, higher contraception (Rotondi et al., 2020)
  - Boost social connectivity, social learning, access to vital services (Unwin, 2009; DiMaggio and Hargittai, 2001; Suri and Jack, 2016)
  - Increases levels of education, economic benefits (Hjort and Poulsen, 2019; Kho, Lakdawala and Nakasone, 2018; Kharisma, 2022)

Benefits of digital revolution

- The **digital revolution** has ushered in tremendous societal and economic benefits
  - Lower gender inequality, lower maternal/child mortality, higher contraception (Rotondi et al., 2020)
  - Boost social connectivity, social learning, access to vital services (Unwin, 2009; DiMaggio and Hargittai, 2001; Suri and Jack, 2016)
  - Increases levels of education, economic benefits (Hjort and Poulsen, 2019; Kho, Lakdawala and Nakasone, 2018; Kharisma, 2022)
- Large **inequality** in who has access to digital technology

Adoption of digital technology varies geographically

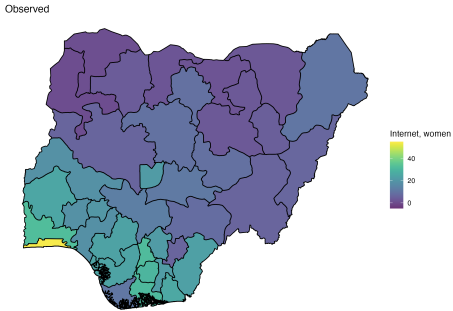
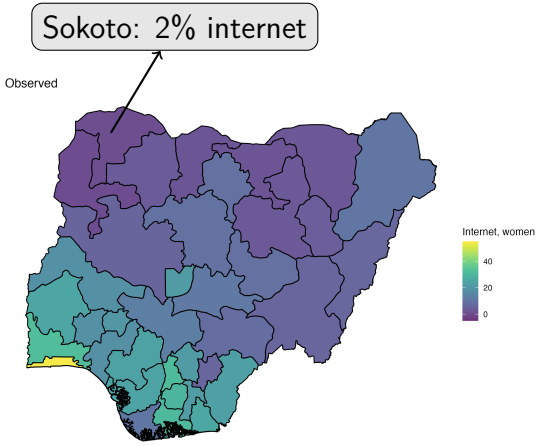
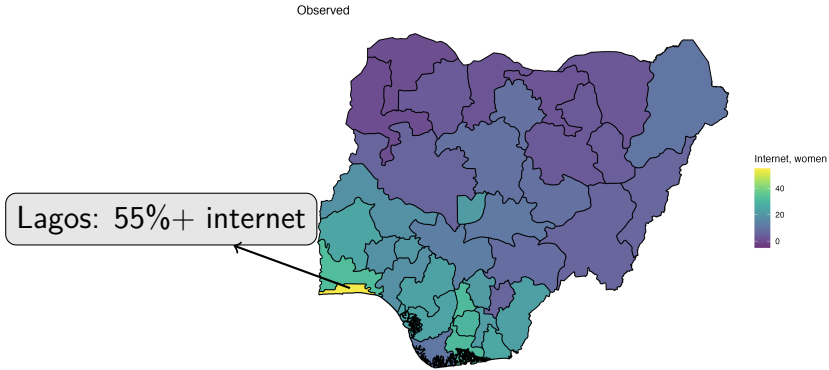


Figure: Source: Nigeria, Demographic and Health Survey

Women using internet, past 12 months



Women using internet, past 12 months

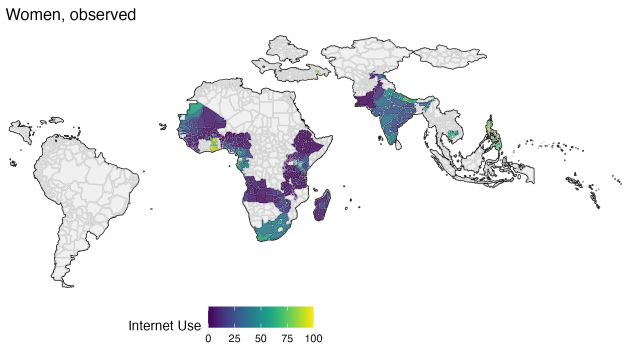


Develop subnational estimates of adoption

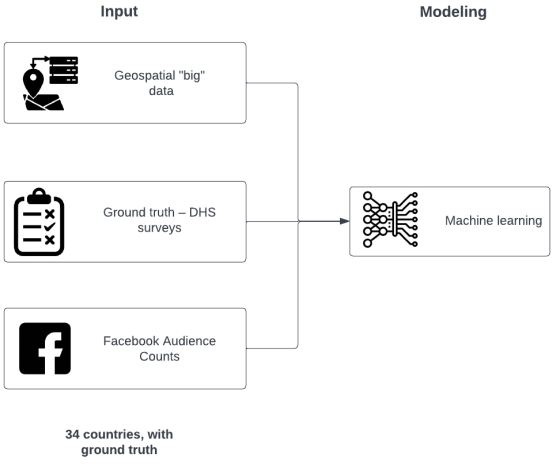
- **Goal**: Develop estimates of internet and mobile adoption by gender and digital gender gaps

Develop subnational estimates of adoption

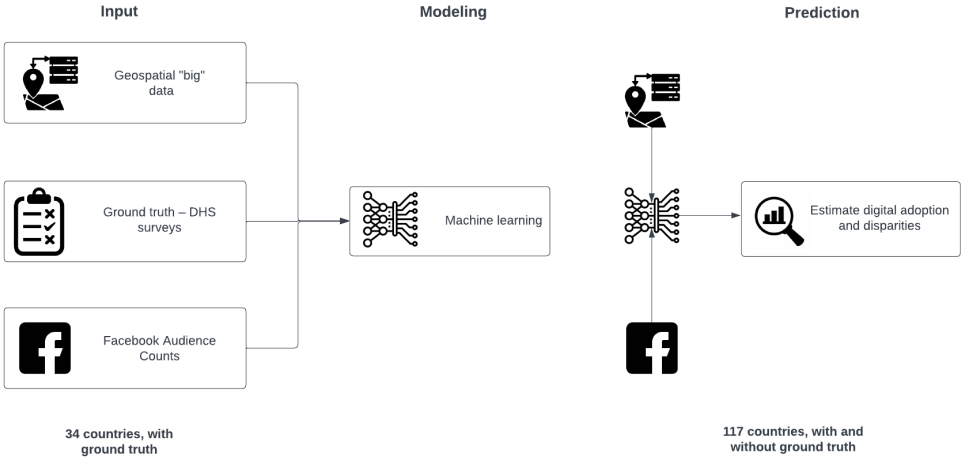
- **Goal**: Develop estimates of internet and mobile adoption by gender and digital gender gaps
- First subnational level
  - 117 countries, 2,075 subnational units



Overview of approach



Overview of approach

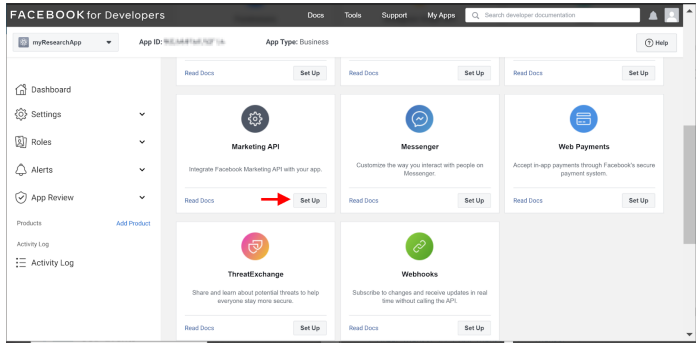


Ground truth – Demographic and Health Surveys (DHS)

- Household surveys representative at the first subnational level
  - Standardized sample design, questionnaire, implementation, etc.
  - Questions on **individual-level** internet use and mobile phone use (wave 7 onwards)
- Focus on 34 different DHS surveys, 2016-2024

Facebook monthly active users counts

- Collected through public marketing API
- Specify geographic region (FB template or custom region)
- Disaggregated counts by gender, age, device type, etc.



Big geospatial and population data

- Include 'offline' predictors that are uniformly available and consistent across subnational units
  - Satellite-derived nighlights data
  - Population density (World pop)
  - Subnational education index, income index, human development index (HDI), gender development index (GDI)

Outcomes of interest (from DHS)

Indicators	Women	Men	Gender Gap
Mobile Phone Ownership	✓	✓	✓
Internet Use, Past 12 Mo	✓	✓	✓

Modeling approach - ensemble machine learning

Algorithm	Description
glmnet (Lasso)	Lasso Regression
glmnet (Ridge)	Ridge Regression
glmnet (Elastic Net)	Elastic Net with 50% L1 Ratio
polspline	Polynomial Spline
ranger	Random Forest with 100 Trees
gbm	Gradient Boosted Machine
glm	Generalized Linear Model
xgboost	Extreme Gradient Boosting
SuperLearner	Ensemble method combining multiple learning algorithms

Making predictions across space and time

- **Goal**: Generate consistent subnational estimates of digital adoption over time

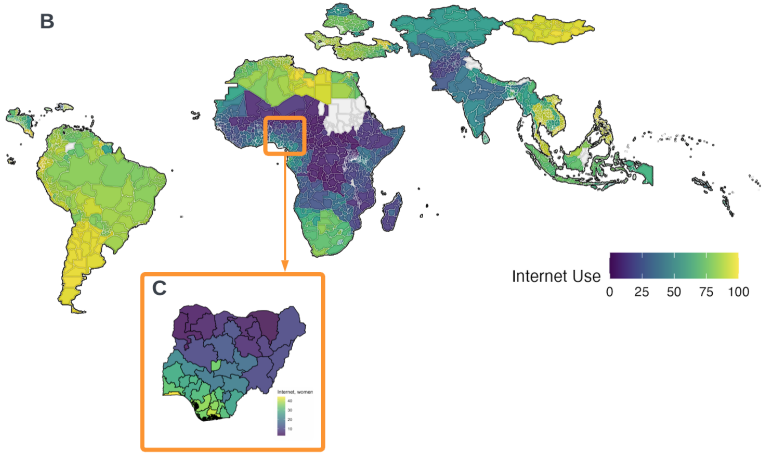
Making predictions across space and time

- **Goal**: Generate consistent subnational estimates of digital adoption over time
- Train models using temporally aligned predictors and DHS survey data from multiple years
  - Include year-specific features

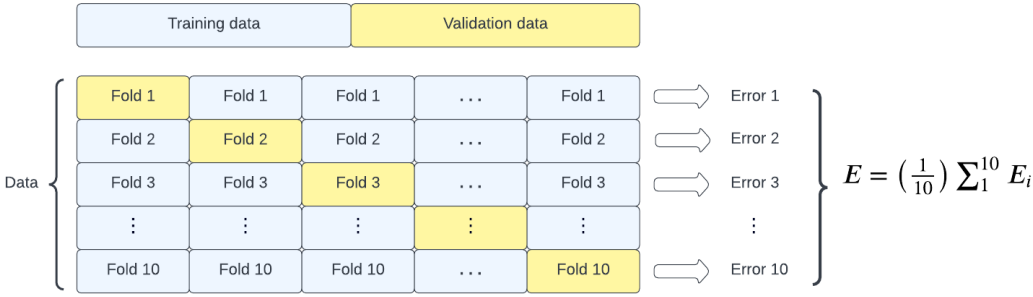
Making predictions across space and time

- **Goal**: Generate consistent subnational estimates of digital adoption over time
- Train models using temporally aligned predictors and DHS survey data from multiple years
  - Include year-specific features
- Generate predictions for 2,075 subnational regions
  - Annually from 2015–2023
  - Monthly from January 2024 onward

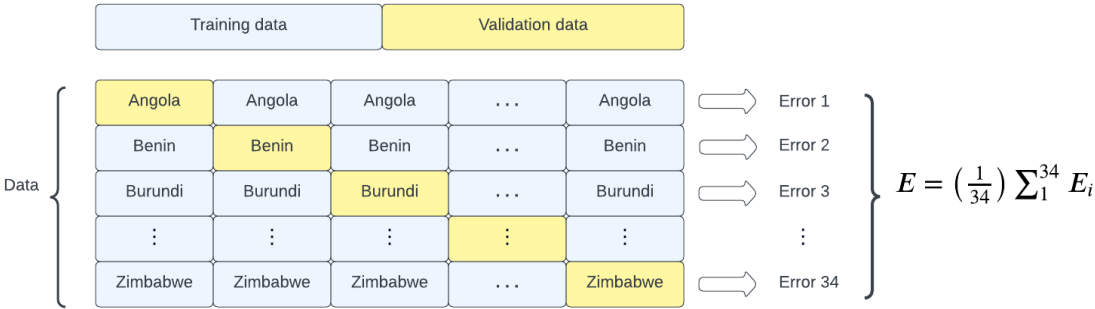
Expanded geographic + temporal coverage



10-fold cross validation



Leave-one-country-out cross validation

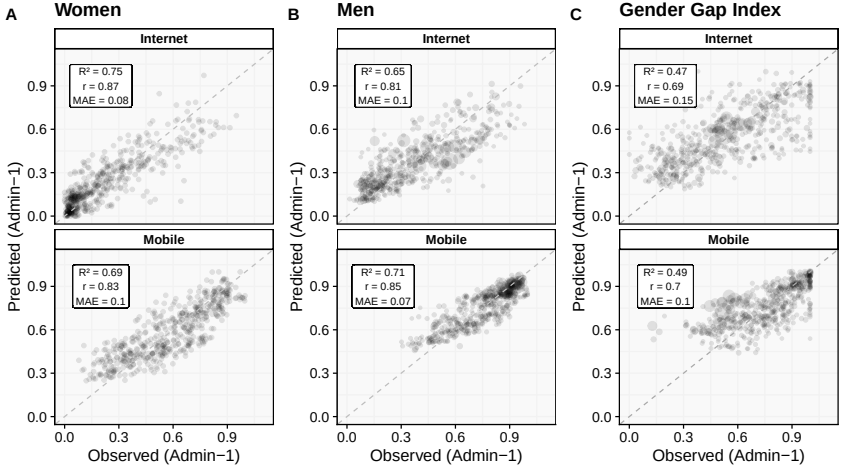


Validation Metric: R^2

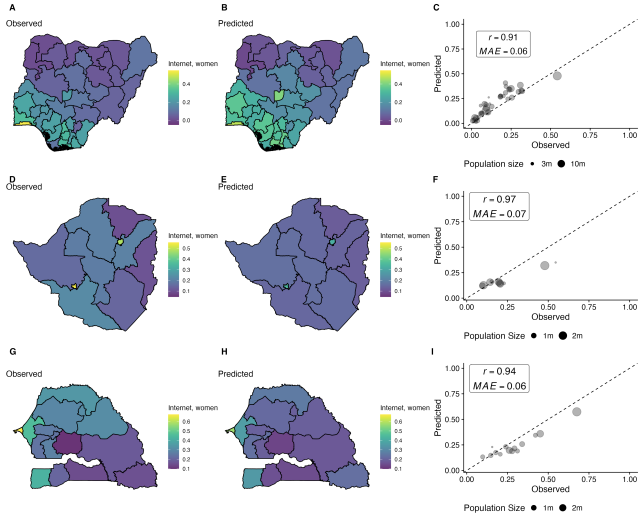
$$
\begin{aligned}
R^2 &= 1 - \frac{SS_{res}}{SS_{tot}} \\
&= 1 - \frac{\sum_{i=1}^{n}(y_i - \hat{y}_i)^2}{\sum_{i=1}^{n}(y_i - \bar{y}_i)^2}
\end{aligned}
\tag{1}
$$

- 1 = **Perfect predictions**
- 0 = **Mean**

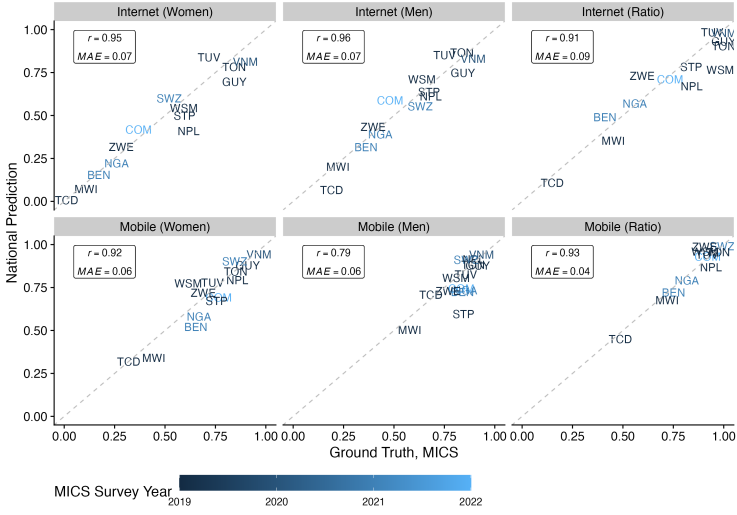
Overall predictive accuracy



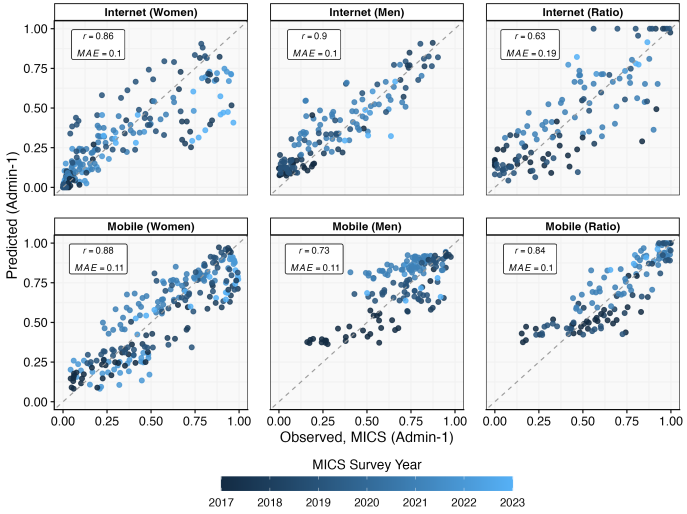
Error by country (held out)



External benchmark (national)

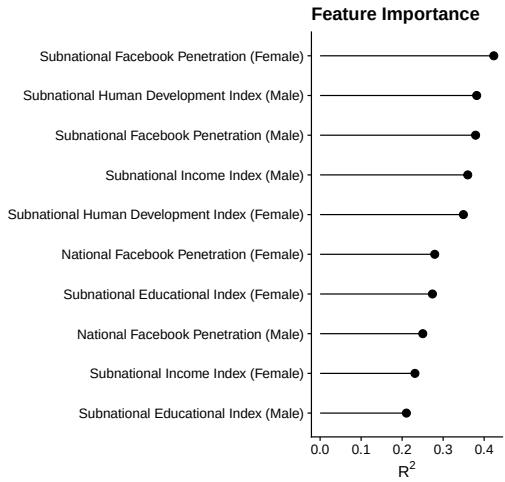


External benchmark (subnational)

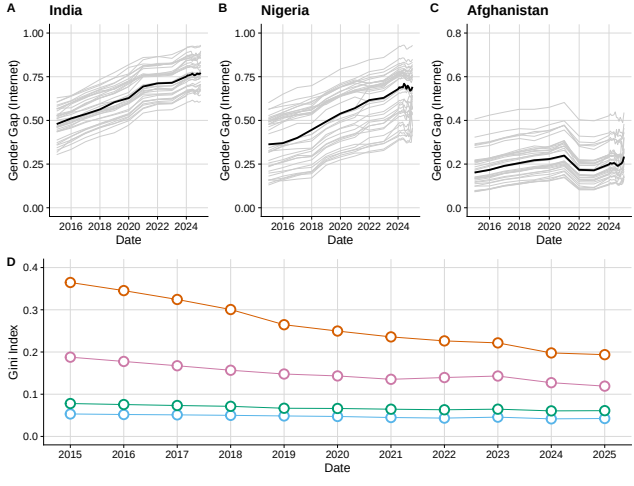


Most important predictors

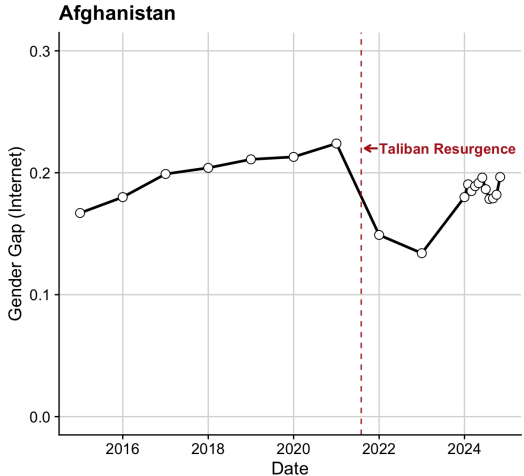




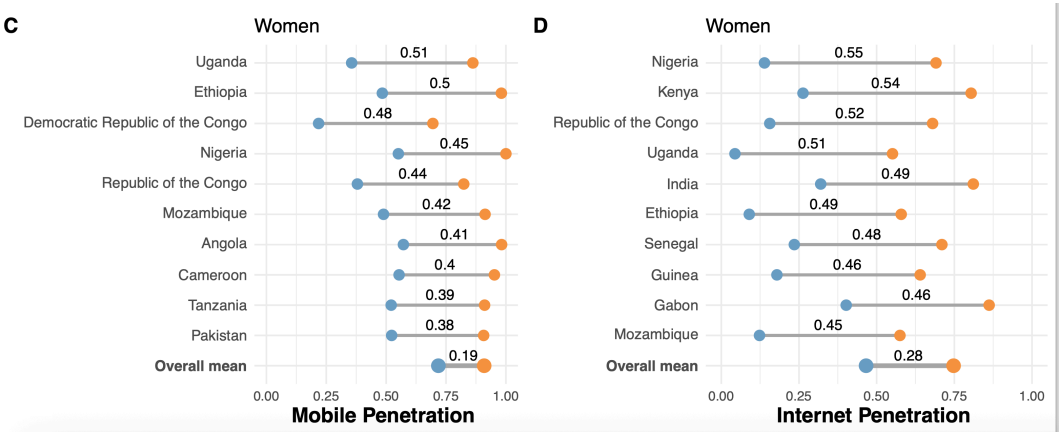
Trends from 2015 - 2026



Extreme example: Taliban resurgence

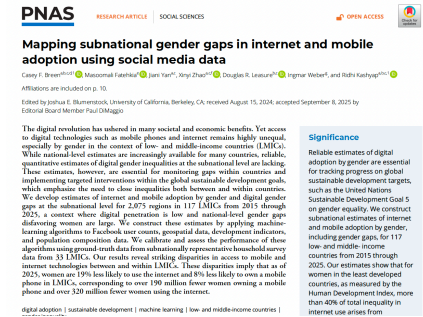


Within-country disparities



Summary

- Using Facebook audience counts **greatly expands** our ability to predict internet adoption in countries with no ground truth
  - 2,075 subnational units, 2015–2025
- Huge **disparities** in access to mobile and internet technologies between and within countries
- New opportunities to study **population-level impacts** of digital technology using these subnational estimates



PNAS RESEARCH ARTICLE | SOCIAL SCIENCES OPEN ACCESS

Mapping subnational gender gaps in internet and mobile adoption using social media data

Casey F. Breen[a,b,c,d], Masoomali Fatehkia[a], Jiani Yan[a,e], Xinyi Zhao[a,f], Douglas R. Leasure[a], Ingmar Weber[g], and Ridhi Kashyap[a,h,c]

Affiliations are included on p. 10.

Edited by Joshua E. Blumenstock, University of California, Berkeley, CA; received August 15, 2024; accepted September 8, 2025 by Editorial Board Member Paul DiMaggio

The digital revolution has ushered in many societal and economic benefits. Yet access to digital technologies such as mobile phones and internet remains highly unequal, especially by gender in the context of low- and middle-income countries (LMICs). While national-level estimates are increasingly available for many countries, reliable, quantitative estimates of digital gender inequalities at the subnational level are lacking. These estimates, however, are essential for monitoring gaps within countries and implementing targeted interventions within the global sustainable development goals, which emphasize the need to close inequalities both between and within countries. We develop estimates of internet and mobile adoption by gender and digital gender gaps at the subnational level for 2,075 regions in 117 LMICs from 2015 through 2025, a context where digital penetration is low and national-level gender gaps disfavoring women are large. We construct these estimates by applying machine-learning algorithms to Facebook user counts, geospatial data, development indicators, and population composition data. We calibrate and assess the performance of these algorithms using ground-truth data from subnationally representative household survey data from 33 LMICs. Our results reveal striking disparities in access to mobile and internet technologies between and within LMICs. These disparities imply that as of 2025, women are 19% less likely to use the internet and 8% less likely to own a mobile phone in LMICs, corresponding to over 190 million fewer women owning a mobile phone and over 320 million fewer women using the internet.

digital adoption | sustainable development | machine learning | low- and middle-income countries |

Significance

Reliable estimates of digital adoption by gender are essential for tracking progress on global sustainable development targets, such as the United Nations Sustainable Development Goal 5 on gender equality. We construct subnational estimates of internet and mobile adoption by gender, including gender gaps, for 117 low- and middle- income countries from 2015 through 2025. Our estimates show that for women in the least developed countries, as measured by the Human Development Index, more than 40% of total inequality in internet use arises from

Figure: Authors: Casey Breen (UT-Austin), Masoomali Fatehkia (Qatar Computing), Ingmar Weber (Saarland), Jiani Yan (Oxford), Xinyi Zhao (Oxford), Doug Leasure (Oxford), Ridhi Kashyap (Oxford)

Project 2

Digital Diffusion

Mobile Internet and the Spread of Cultural Scripts about Family Life

Casey F. Breen (UT-Austin) Till Koebe (Saarland) Ridhi Kashyap (Oxford)

Background: How do ideas and culture spread?

- Diffusion theories such as World Polity Theory argue that **cultural scripts** (shared models of appropriate behavior) circulate globally and shape social culture (Meyer et al., 1997)

Background: How do ideas and culture spread?

- Diffusion theories such as World Polity Theory argue that **cultural scripts** (shared models of appropriate behavior) circulate globally and shape social culture (Meyer et al., 1997)

- **Developmental idealism**: a cultural model linking low and planned fertility, monogamy, and gender equality to modernity and prosperity (Thornton, 2001)

Background: How do ideas and culture spread?

- Diffusion theories such as World Polity Theory argue that **cultural scripts** (shared models of appropriate behavior) circulate globally and shape social culture (Meyer et al., 1997)
- **Developmental idealism**: a cultural model linking low and planned fertility, monogamy, and gender equality to modernity and prosperity (Thornton, 2001)
- Classic diffusion pathways are **centralized** and **institutionally mediated**:
  - States, intergovernmental organizations, NGOs
  - Mass media (radio, television) (Montgomery and Casterline, 1996; La Ferrara, Chong and Duryea, 2012)
  - Elites and colonialism

Mobile internet as a qualitatively distinct pathway

- Billions of people have come online in the past decade, largely through **mobile internet**

Mobile internet as a qualitatively distinct pathway

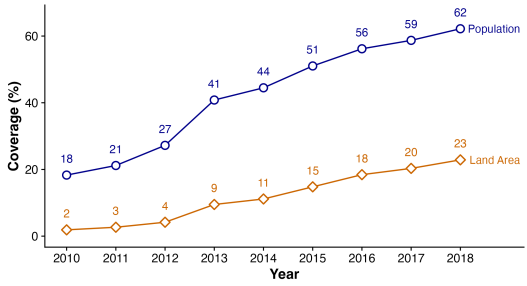
- Billions of people have come online in the past decade, largely through **mobile internet**
- We theorize that mobile internet differs from broadcast media on three dimensions:
  1. **Decentralized**: peer-mediated sharing turns users into diffusion nodes
  2. **Continuous**: portable access embeds exposure in daily routines
  3. **Algorithmically curated**: exposure is personalized and self-reinforcing

Mobile internet as a qualitatively distinct pathway

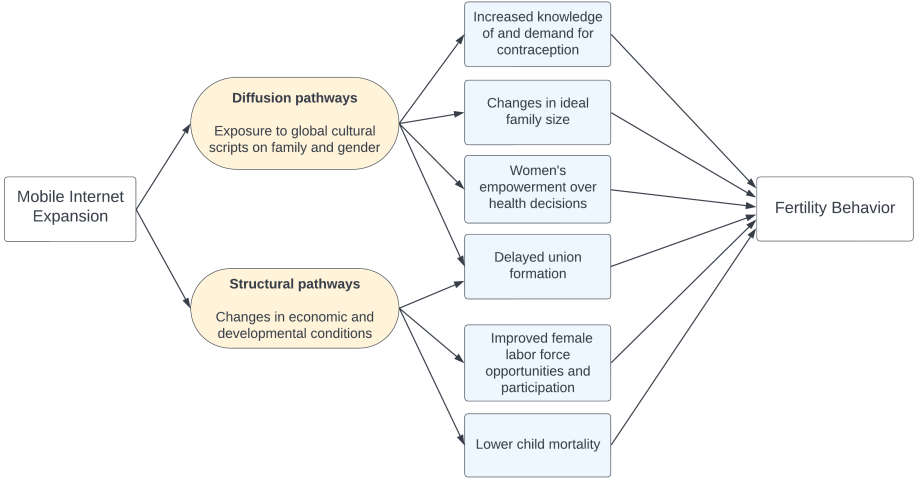
- Billions of people have come online in the past decade, largely through **mobile internet**
- We theorize that mobile internet differs from broadcast media on three dimensions:
  1. **Decentralized**: peer-mediated sharing turns users into diffusion nodes
  2. **Continuous**: portable access embeds exposure in daily routines
  3. **Algorithmically curated**: exposure is personalized and self-reinforcing
- Shifts exposure from **uniform and episodic** to **individualized and repeated**

The empirical case of fertility in Nigeria

- Mobile internet coverage grew from roughly **20% to 65%** of the population, 2010–2018
- **Leapfrogged** fixed-line internet: a mobile-first digital environment
- Persistently **high fertility**, high desired family size, large gender gaps in fertility preferences, fertility reflects cultural choices

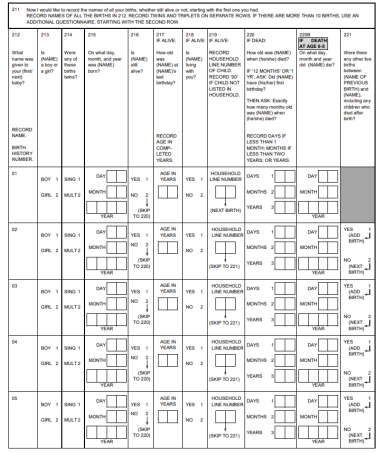


Theoretical Framework



Fertility + Mobile Coverage Data

- Generate longitudinal panel, 2010–2018:
  - 2018 Nigeria DHS: 41,623 women aged 15–49, complete retrospective birth histories, GPS-referenced clusters
  - Annual 2G and 3G+ mobile coverage maps from GSMA
  - WorldPop 100m population grids


SECTION 2. REPRODUCTION

211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had.
RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE ROWS. IF THERE ARE MORE THAN 10 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE, STARTING WITH THE SECOND ROW.

212 What name was given to your (first/ next) baby? RECORD NAME. BIRTH HISTORY NUMBER.	213 Is (NAME) a boy or a girl?	214 Were any of these births twins?	215 On what day, month, and year was (NAME) born?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD. IF CHILD NOT LISTED IN HOUSEHOLD:	220 IF DEAD: How old was (NAME) when (he/she) died? IF '12 MONTHS' OR 'LESS THAN 1 YEAR', ASK: Did (NAME) have (his/her) first birthday? THEN ASK: Exactly how many months old was (NAME) when (he/she) died? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN 2 YEARS; OR YEARS.	220A IF DEATH AT AGE 0-5 On what day, month and year did (NAME) die?	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	BOY 1 GIRL 2	SING 1 MULT 2	DAY / MONTH / YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (NEXT BIRTH)	DAYS 1 MONTHS 2 YEARS 3	DAY / MONTH / YEAR	
02	BOY 1 GIRL 2	SING 1 MULT 2	DAY / MONTH / YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (SKIP TO 221)	DAYS 1 MONTHS 2 YEARS 3	DAY / MONTH / YEAR	YES 1 (ADD BIRTH) NO 2 (NEXT BIRTH)
03	BOY 1 GIRL 2	SING 1 MULT 2	DAY / MONTH / YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (SKIP TO 221)	DAYS 1 MONTHS 2 YEARS 3	DAY / MONTH / YEAR	YES 1 (ADD BIRTH) NO 2 (NEXT BIRTH)
04	BOY 1 GIRL 2	SING 1 MULT 2	DAY / MONTH / YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (SKIP TO 221)	DAYS 1 MONTHS 2 YEARS 3	DAY / MONTH / YEAR	YES 1 (ADD BIRTH) NO 2 (NEXT BIRTH)
05	BOY 1 GIRL 2	SING 1 MULT 2	DAY / MONTH / YEAR	YES 1 NO 2 (SKIP TO 220)	AGE IN YEARS	YES 1 NO 2	HOUSEHOLD LINE NUMBER (SKIP TO 221)	DAYS 1 MONTHS 2 YEARS 3	DAY / MONTH / YEAR	YES 1 (ADD BIRTH) NO 2 (NEXT BIRTH)

Figure: DHS Birth History

3G Coverage Rollout in Nigeria

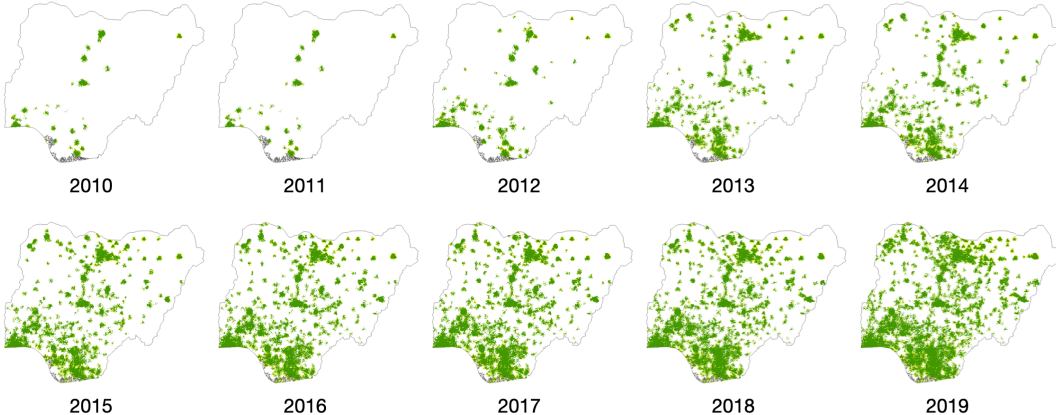
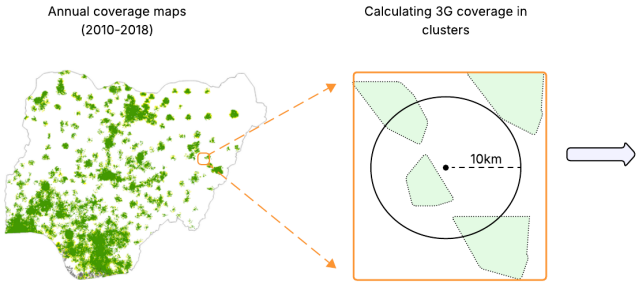


Figure: Source: GSMA Mobile Coverage Maps

Constructing longitudinal panel



Woman ID	Year	Birth	3G Coverage	DHS Cluster	DHS Covariates
10 47 3	2010	0	0.000	001	X
10 47 3	2011	0	0.000	001	X
10 47 3	2012	1	0.000	001	X
10 47 3	2013	0	0.000	001	X
10 47 3	2014	1	0.716	001	X
10 47 3	2015	0	0.771	001	X
10 47 3	2016	0	0.780	001	X
10 47 3	2017	0	0.781	001	X
10 47 3	2018	0	0.916	001	X

Figure: Buffers of 2 km (urban) and 10 km (rural) around displaced DHS cluster coordinates; share of buffer population covered by 2G and 3G+ each year

Analytic Strategy (Two-Way Fixed Effects)

$$B_{ic,t} = \beta_0 + \underbrace{\beta_1 3\text{G}_{c,t-1} + \beta_2 2\text{G}_{c,t-1}}_{\text{Lagged coverage intensity}} + \underbrace{\gamma_c}_{\text{Cluster FE}} + \underbrace{\delta_t}_{\text{Year FE}} + \underbrace{\boldsymbol{\beta}\mathbf{X}_i}_{\text{Controls}} + \epsilon_{ic,t}$$

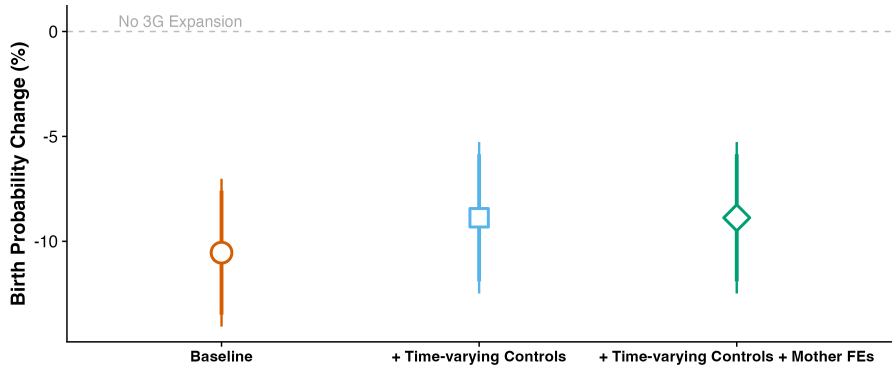
where

- $B_{ic,t}$ indicates whether woman i in cluster c had a live birth in year t
- $3\text{G}_{c,t-1}$ is the share of the population in cluster c covered by 3G+ in year $t-1$ (2G analogous)
- Sample: clusters with **no 3G coverage in 2010** (75% of clusters) and women who have not moved in the past 5 years (84%)

Identifying assumption: rollout is plausibly exogenous

- Rollout timing driven by technical and business factors, not by local fertility
- Cluster FE absorb all time-invariant differences; year FE absorb common shocks
- No meaningful relationship between change in 3G coverage and change in GDP at the cluster level, 2010–2018 (consistent with Flückiger and Ludwig, 2023 for Africa)
- No differential **pre-trends**
- Robustness: time-varying cluster controls (GDP, nightlights, rainfall, temperature), mother FE, Sun and Abraham estimator, full sample without restrictions

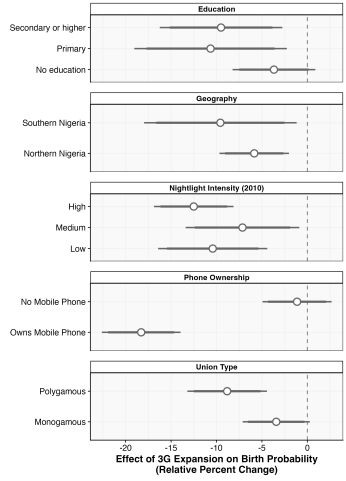
Effect of mobile internet expansion on probability of birth



Full expansion (0% to 100% coverage) reduces annual births by **9–10% relative decline**

Effect heterogeneity

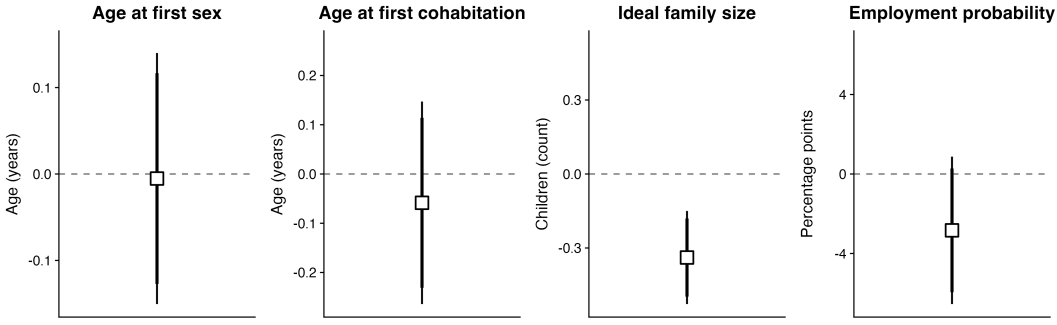
- Effects **concentrated among phone owners**;
- No clear differences by baseline development or North vs. South



Testing mechanisms

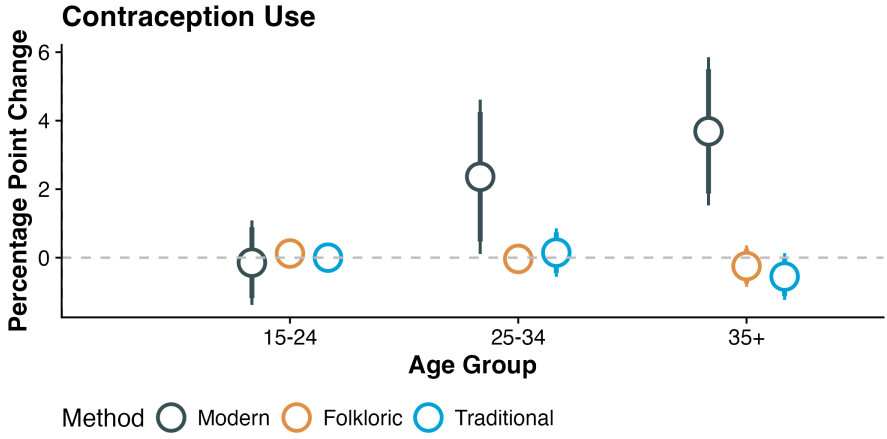
- Mechanism outcomes are observed **cross-sectionally** in the 2018 DHS (except infant mortality)
- We examine associations between 3G+ expansion in a cluster (2010–2018) and 2018 outcomes, with individual controls, and state and age FE
- Suggestive and descriptive, not causal

Lower ideal family size; no change in union timing or employment

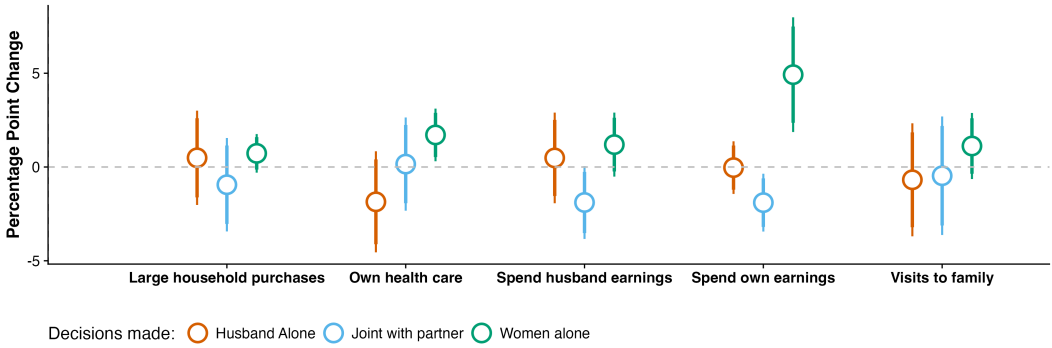


Full 3G+ expansion associated with an ideal family size **0.33 children lower**. No association with age at first sex, age at first cohabitation, or employment.

Higher modern contraception uptake, not traditional or folkloric methods

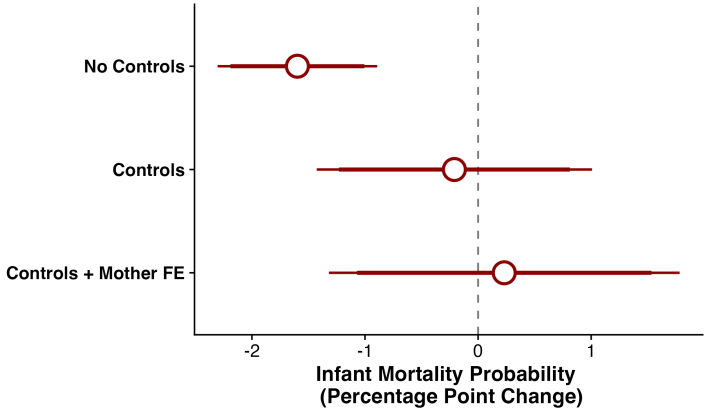


Greater autonomy over health care and own earnings



Women deciding **alone** about own health care and own earnings; no change in joint decision-making.

No evidence of reduced infant mortality



Same TWFE specification as main model, with infant death as the outcome.

Mechanisms: summary

Cultural diffusion

- Ideal family size ↓
- Modern contraception ↑
- Women's autonomy ↑

Structural change

- Labor force participation ∅
- Age at first sex / cohabitation ∅
- Infant mortality ∅

Mechanisms: summary

Cultural diffusion

- Ideal family size ↓
- Modern contraception ↑
- Women's autonomy ↑

Structural change

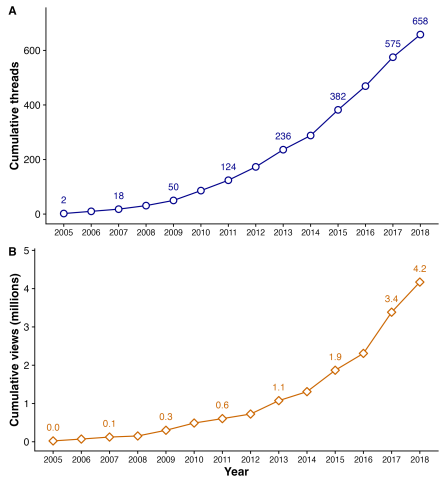
- Labor force participation ∅
- Age at first sex / cohabitation ∅
- Infant mortality ∅

Preference change without structural change, concentrated among phone owners: consistent with **diffusion of cultural scripts** rather than economic development.

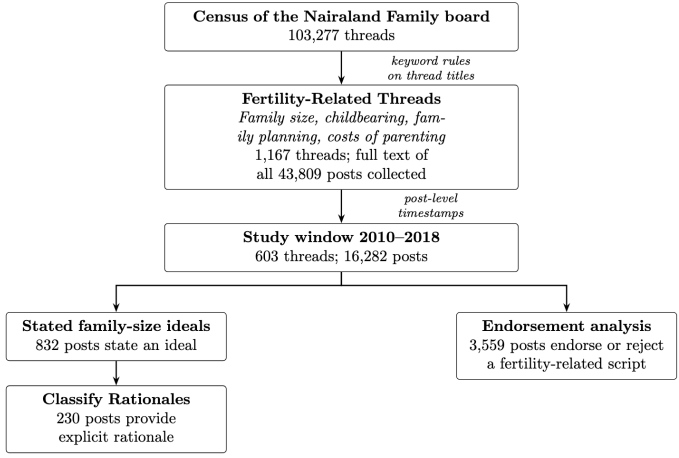
What content was circulating online?

What content was circulating online?

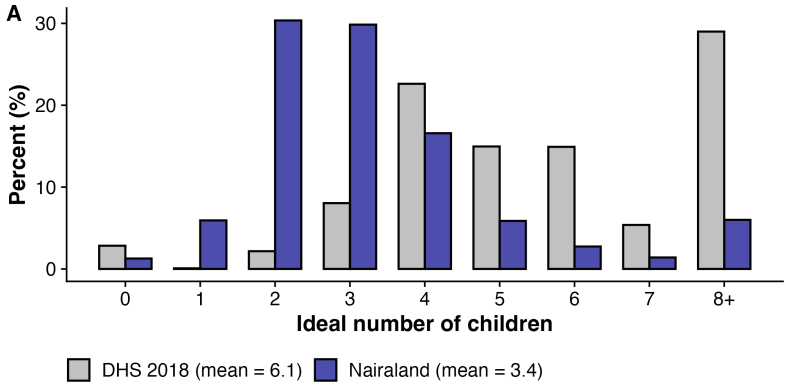
- Nairaland: Nigeria's largest online forum. A **top-five website** in Nigeria during the study period
- Census of the Family board (103,277 threads), screened for family size, childbearing, family planning
- 2010–2018: **603 threads**, **16,282 posts**, 4.2 million views



Classifying 16,282 Posts: Hybrid Human/LLM Approach

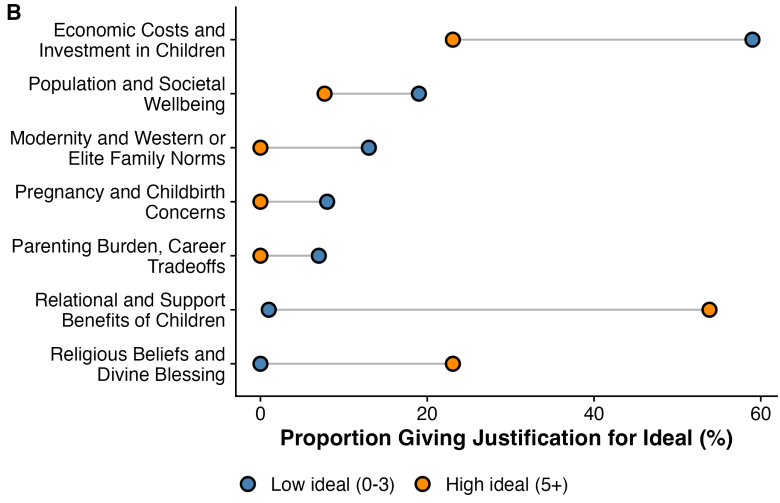


Online ideals are far lower than survey ideals



832 Nairaland posts stated an ideal family size; modal ideal is two children.

Rationales differ for low and high ideals



Example post: evoking Western elites

"I checked thru d list of the richest men in africa #forbes, and the person w highest no of children on the list is 3. Just someone had 4. Obama has 2, clinton has 1."

Nairaland Family board poster, rationale for a low ideal family size

Fertility scripts in Nairaland family-life threads, 2010–2018

	Endorsing		Opposing		Ratio
Script	*Posts*	*%*	*Posts*	*%*	*endorse/oppose*
Planned fertility	933	5.7	38	0.2	**24.6**
Modern contraception / medical authority	400	2.5	51	0.3	**7.8**
Female reproductive autonomy	203	1.2	87	0.5	**2.3**
Any script	1,276	7.8	165	1.0	**7.7**

- Posts counted only where both LLM codings agree ($\kappa = 0.77, 0.84, 0.57$ for the three endorsing scripts)
- Strong consensus for **deliberate fertility control**; female reproductive autonomy more **contested**

Key Findings

- Mobile internet is a qualitatively distinct diffusion pathway: decentralized, continuous, algorithmically curated
- Full exposure to 3G+ rollout (0-100%) across Nigeria **reduced fertility** by roughly 9%, isolating mobile internet from basic 2G phones
- Mechanisms point to **cultural diffusion**: lower ideal family size, more modern contraception, greater autonomy
- Scripts circulating online align with developmental idealism, evoking modern/elite norms

Digital Technology, Inequality, and Cultural Change

- **Digital inequality (Study 1)**: Access to mobile internet varies dramatically across and within countries

Digital Technology, Inequality, and Cultural Change

- **Digital inequality (Study 1)**: Access to mobile internet varies dramatically across and within countries
- **Digital diffusion (Study 2)**: Mobile internet diffuses culture scripts that affects major life outcomes like fertility

Digital Technology, Inequality, and Cultural Change

- **Digital inequality (Study 1)**: Access to mobile internet varies dramatically across and within countries
- **Digital diffusion (Study 2)**: Mobile internet diffuses culture scripts that affects major life outcomes like fertility
- **Broader implication**: Inequalities in digital access may shape who participates in global cultural change

Thank You

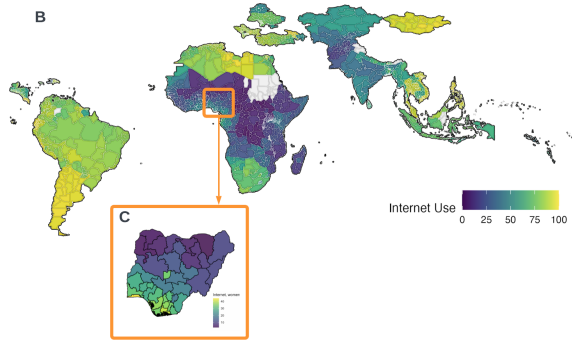
Funders:

- Bill and Melinda Gates Foundation (INV-045370)
- NICHD (P2CHD042849), NIA (P30AG066614)

Contact:

caseyfbreen

casey.breen@austin.utexas.edu



References

DiMaggio, Paul and Eszter Hargittai. 2001. "From the 'Digital Divide' to 'Digital Inequality': Studying Internet Use as Penetration Increases." p. 25.

Flückiger, Matthias and Markus Ludwig. 2023. "Mobile Phone Coverage and Infant Mortality in Sub-Saharan Africa." *Journal of Economic Behavior & Organization* 211:462–485.

Hjort, Jonas and Jonas Poulsen. 2019. "The Arrival of Fast Internet and Employment in Africa." *American Economic Review* 109(3):1032–1079.

Kharisma, Bayu. 2022. "Surfing Alone? The Internet and Social Capital: Evidence from Indonesia." *Journal of Economic Structures* 11(1):8.

Kho, Kevin, Leah K Lakdawala and Eduardo Nakasone. 2018. "Impact of Internet Access on Student Learning in Peruvian Schools.".

La Ferrara, Eliana, Alberto Chong and Suzanne Duryea. 2012. "Soap Operas and Fertility: Evidence from Brazil." *American Economic Journal: Applied Economics* 4(4):1–31.

Meyer, John W., John Boli, George Thomas and Francisco O. Ramirez. 1997. "World Society and the Nation-State." *American Journal of Sociology* 103(1):144–181.

Montgomery, Mark R. and John B. Casterline. 1996. "Social Learning, Social Influence, and New Models of Fertility." *Population and Development Review* 22:151.

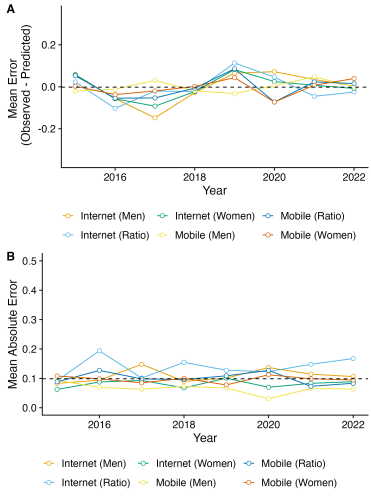
Rotondi, Valentina, Ridhi Kashyap, Luca Maria Pesando, Simone Spinelli and Francesco C. Billari. 2020. "Leveraging Mobile Phones to Attain Sustainable Development." *Proceedings of the National Academy of Sciences* 117(24):13413–13420.

Suri, Tavneet and William Jack. 2016. "The Long-Run Poverty and Gender Impacts of Mobile Money." *Science* 354(6317):1288–1292.

Thornton, Arland. 2001. "The Developmental Paradigm, Reading History Sideways, and Family Change." *Demography* 38(4):449–465.

Unwin, P. T. H. 2009. *ICT4D: Information and Communication Technology for Development*. Cambridge University Press.

Trends validation

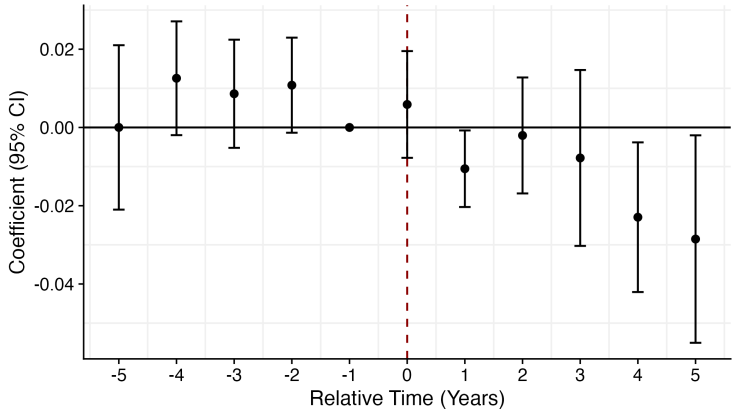


Robust to removing sample restrictions



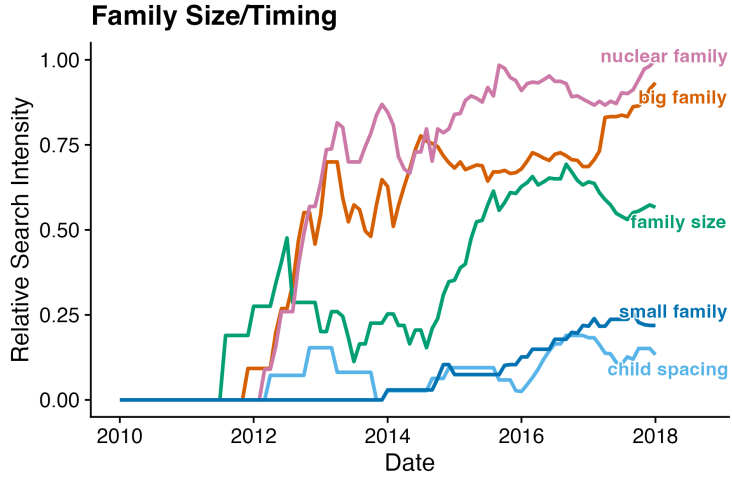
Main TWFE specification re-fit on the full sample, including clusters with 3G coverage in 2010 and women who moved in the past five years.

Event study: no differential pre-trends



Sun and Abraham (2021) estimator; treatment defined as first year 3G+ reaches a cluster.

Google search interest in contraception and family size, Nigeria



Reliability of the LLM Coding

	Independent codings		Combined		Agreement	
Script	*GPT Solis*	*Claude Fable 5.1*	*Both*	*Either*	*% agree*	κ
Endorsing						
Planned fertility	1,176	1,200	933	1,443	96.9	0.77
Modern contraception / medical authority	461	490	400	551	99.1	0.84
Female reproductive autonomy	214	483	203	494	98.2	0.57
Opposing						
Female reproductive autonomy	109	129	87	151	99.6	0.73
Modern contraception / medical authority	54	87	51	90	99.8	0.72
Planned fertility	58	51	38	71	99.8	0.70

All six categories are rare, so percent agreement is high throughout and κ is the informative statistic. The consensus rule discards more flagged posts where agreement is weaker, so those counts are lower bounds.