

China's Internet Development Surveys: From Internet Surveys to Data-Driven Connectivity Policy

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Data Matters for Connectivity Policy

Who are we?

China Internet Network Information Center
(CNNIC)

CNNIC is an administration and service organization, has conducted China's Internet development survey since 1997, providing a continuous evidence base on Internet access and use.

Why Measure?

The Statistical Survey on China's Internet Development

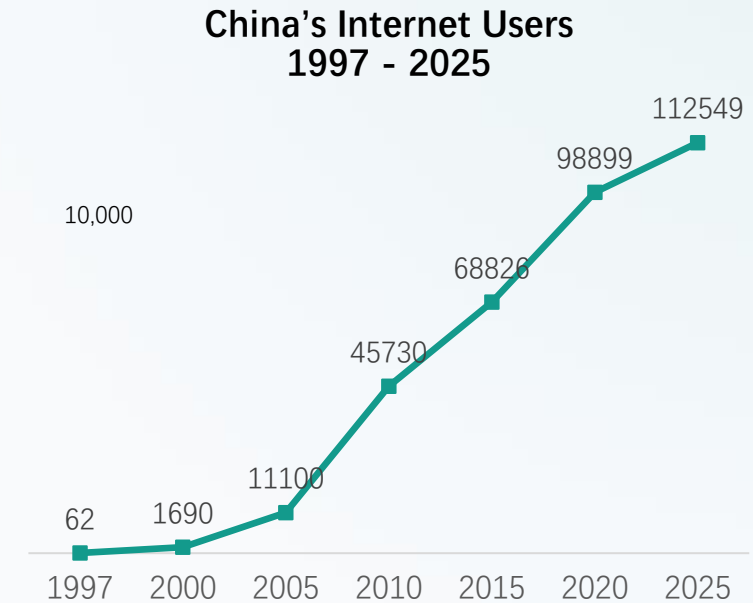
The survey provides a macroscopic overview of China's Internet landscape, serves as a long-term data source for national statistics, digital planning, and policy monitoring.

 **How can longitudinal and disaggregated Internet data be translated into better connectivity policies?**

Building a Long-Term National Evidence Base

The value of the series lies not only in its scale, but in its ability to support long-term comparison and policy monitoring.

- ✓ **Historical Longevity:** The survey has been continuously conducted for 29 years, publishing **57 consecutive reports** as of 2025.
- ✓ **Massive Scale:** The survey has collected empirical data through over **2 million** telephone interviews and near **1.4 million** online questionnaires.
- ✓ **A Witness to Growth:** The survey has documented China's internet users growing from just 620 thousand in 1997 to over **1.1 billion** today.



Evolving the Survey while Preserving Comparability

Update the survey, but protect the stable core for time-series comparability.

Sampling Redesign

- In 2001, utilized Probability Proportional to Size (PPS) sampling to determine sampling units, ensuring scientific and unbiased respondent distribution.
- Leveraging PPS sampling improved representativeness and supported subnational estimation where the design permits.
- The sample size is expanded to **90,000** every year.

Mobile Sample Integration

- In 2007, introduced **mobile samples**, originally accounted for 40% of the total samples and have risen to nearly 100% today, accurately capturing the mobile internet boom.

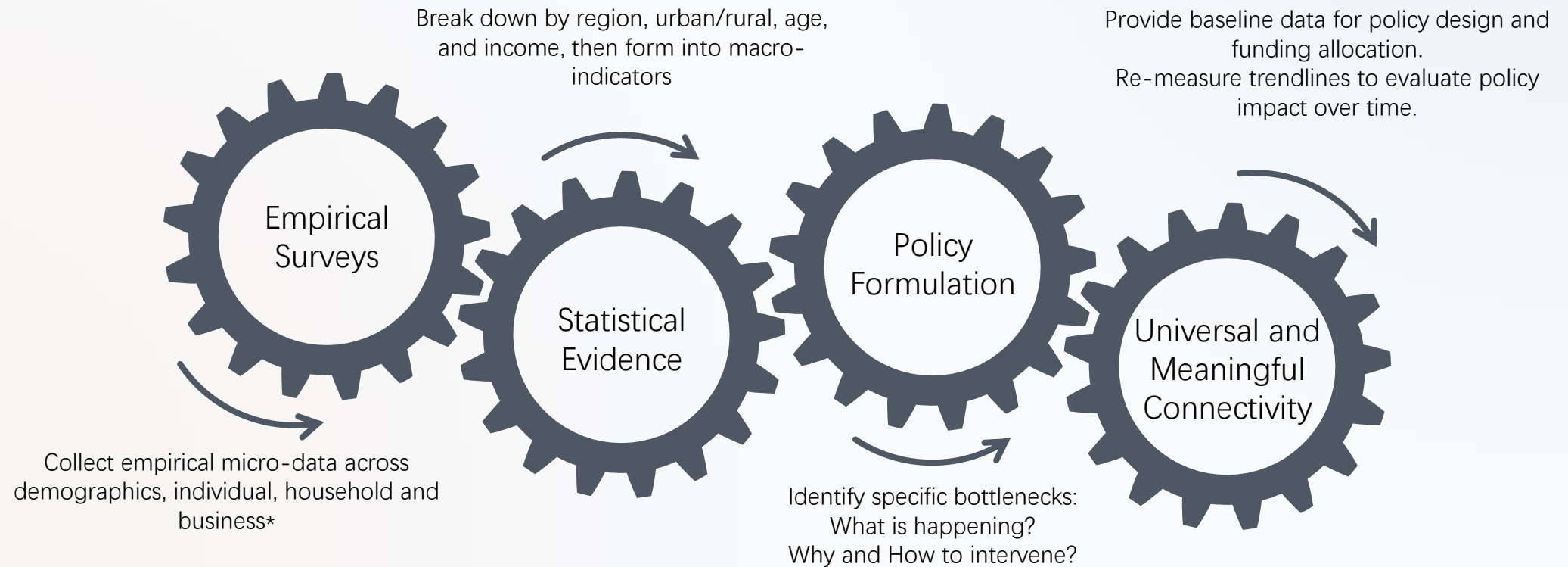
Global Standardization

- In 2007, aligned with global ICT measurement principles, redefined 'Internet users' as individuals using the Internet in the past 6 months - adapting ITU's core indicator to China's biannual survey cycle and national context.

From Measurement to Policy

The value of a national survey lies not in data collection itself, but in the policy feedback loop it enables.

- Measure → Disaggregation → Diagnosis → Inform Policy → Monitoring → Updated evidence & Re-measure



Bridging Data & Policy

Survey findings are incorporated into official statistics, national planning and subnational monitoring, creating institutional channels through which evidence can inform policy.



Official Statistics

Integrating core survey indicators into Official National Statistics

- The Statistical Communiqué on National Economic and Social Development
- The China Statistical Yearbook

Evidence

Time-series micro-data across urban/rural, elderly, and low-income demographics locate specific digital divide bottlenecks.



National policy planning

Serving as the analytical foundation for major state strategies

- The Five-Year Plan for National Economic and Social Development of the People's Republic of China, The Five-Year Plan for National Informatization
- The Network Strong Country Strategy

Decision Channel

Provide a recognized evidence base for policy formulation, while multi-year trendlines help inform predictive analysis and ex-ante policy targeting.



Subnational targeting and monitoring

Empowerment through Subnational Guidance

- Subnational Metric Provisions, including internet penetration rates, user scale, and digital application adoption
- Regional and Provincial Internet Development Indicators and Reports

Monitoring

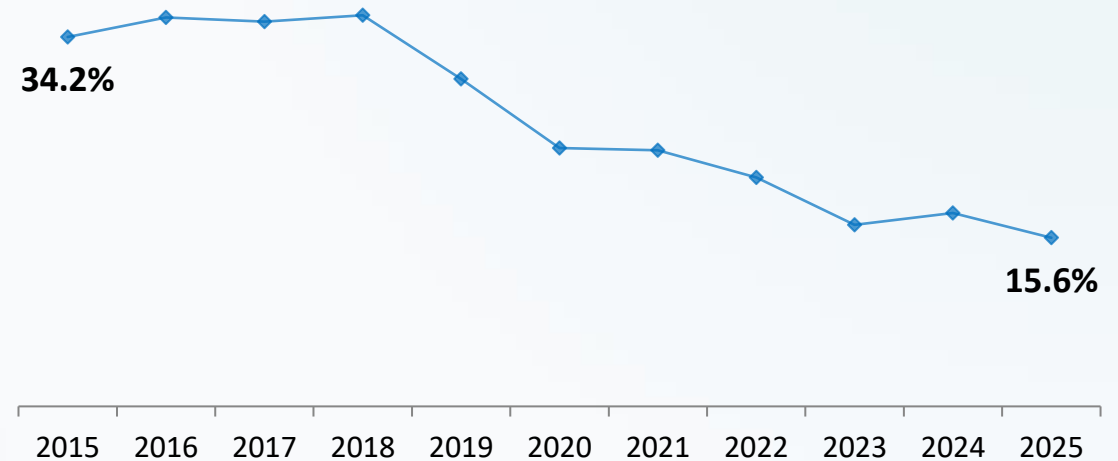
Guide targeted intervention, e.g. USF subsidies, tariff reductions, Elder Accessibility Initiatives.

Monitor the Rural Connectivity Gap

Disaggregated survey data helps identify where connectivity gaps persist, inform the targeting of interventions, and monitor changes over time.

- **Identify Gap:** Surveying rural and remote communities to locate structural disparities in access, network quality and digital literacy.
- **Inform targeting:** Providing evidence to guide universal service mechanisms and rural digital inclusion policies.
- **Monitor trend:** Tracking long-term trends, capturing the combined impact of policy measures and broader socio-economic factors.

Internet penetration gap in urban and rural areas of China



Over the past decade, **118 million** new rural users, and the urban-rural penetration gap narrowed by nearly **19 percentage points**.

Stable Core + Adaptive Modules

A practical survey architecture combines a stable core of long-term connectivity indicators with adaptive modules for emerging technologies and policy issues.

Operationalizing UMC Measurement

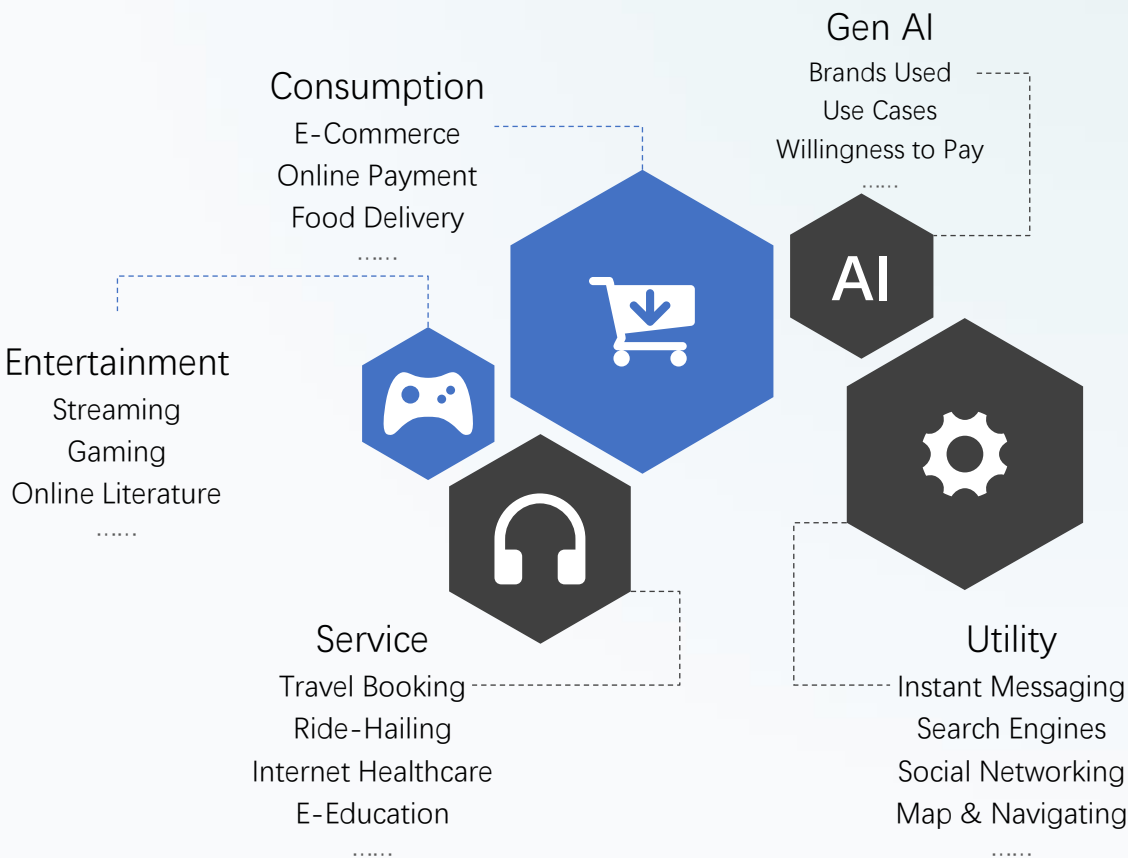
Maintain core indicators, e.g., access rates, application usage, and demographic breakdowns (urban-rural, age, gender)—that directly map onto actionable UMC dimensions, specifically availability and devices.

Agile Application Tracking

Pioneered early-stage tracking of e-commerce (1998) and mobile internet usage (2006), expanding to over 20 core digital application categories, inform evidence-based policy and empower industry strategy.

Beyond Connectivity

Evaluated user perception, digital literacy, and security awareness, including pioneering non-user analyses as early as 2002.



China's UMC Metrics: Indicators adopted by ITU

The surveys provide essential micro-data inputs to complement the broader ITU UMC framework.

Internet users ● Advanced

Individuals aged 10+ using the Internet %



91.6%

Target is considered met if at least 95% of individuals use the Internet

Mobile phone ownership ✓ Target met

Individuals who own a mobile cellular telephone %



98.4%

The target is met if at least 95% of the population own a mobile phone

Internet use gender parity ✓ Target met

Internet use gender parity



0.991

Internet use gender parity

| Takeaways

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Disaggregate Around Policy Needs: Maintain a stable core for long-term comparison while disaggregating data to identify vulnerable populations.
- 
Institutionalize the Feedback Loop: Build formal mechanisms linking survey findings directly to national planning and policy evaluation.
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Adapt to National Capacity: Tailor survey scale and methodologies to country-specific resources rather than attempting to replicate large-scale models.
- 
Protect the Core while Adapting the Scope: Maintain core indicator comparability over time, while adapting survey scope to emerging technologies (e.g., AI, digital skills).

Thank you!

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