



# Pakistan School of Internet Governance

“Internet and the Digital Divide”

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Give people the power  
to build community and  
bring the world closer  
together



Bring internet access  
to the remaining  
**3.8 billion people** who  
are not yet connected

# The Inclusive Internet Index (3i)

In-depth look at the global state of Internet connectivity and inclusiveness. This is the second year of the index, designed to build a time series of important data.



# 57 3i Indicators For Each Country In 2018



- |  |  |   |
|--|--|---|
| <ul style="list-style-type: none"> <li>• Internet users</li> <li>• Fixed &amp; mobile subscribers</li> <li>• Gender gap in access</li> </ul>   | <ul style="list-style-type: none"> <li>• Fixed &amp; mobile speed, latency metrics</li> <li>• Bandwidth capacity</li> <li>• Network coverage (2G, 3G, 4G)</li> </ul>   | <ul style="list-style-type: none"> <li>• Wi-fi initiatives</li> <li>• Internet Exchange Points (IXPs)</li> <li>• Electricity access</li> </ul>                                |
| <ul style="list-style-type: none"> <li>• Handset cost</li> <li>• Mobile phone cost (prepaid)</li> <li>• Mobile phone cost (postpaid)</li> </ul>  | <ul style="list-style-type: none"> <li>• Monthly fixed broadband cost</li> <li>• Average revenue per user (ARPU)</li> </ul>  | <ul style="list-style-type: none"> <li>• Wireless operators' market share</li> <li>• Broadband operators' market share</li> </ul>   |
| <ul style="list-style-type: none"> <li>• Basic information in local language</li> <li>• Concentration of websites using ccTLD</li> </ul>   | <ul style="list-style-type: none"> <li>• Local language device keyboard</li> <li>• Local language e-gov services</li> </ul>  | <ul style="list-style-type: none"> <li>• e-content: Finance, Health, Entertainment and e-Commerce</li> <li>• Value of the Internet for e-content</li> </ul>                   |
| <ul style="list-style-type: none"> <li>• Literacy level</li> <li>• Educational attainment</li> <li>• Digital literacy support</li> <li>• Web accessibility</li> <li>• Privacy regulations</li> </ul> | <ul style="list-style-type: none"> <li>• Trust: online privacy, gov't sites, non-gov't sites and social media</li> <li>• e-Commerce safety</li> <li>• Female e-inclusion</li> <li>• Underserved e-inclusion</li> </ul> | <ul style="list-style-type: none"> <li>• National broadband strategy</li> <li>• Broadband buildout funding</li> <li>• Spectrum policy</li> <li>• Digital ID system</li> </ul> |

# Key Global Findings: 2018

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- Internet connectivity grew 8.3% over the last year, with a 65.1% increase in low-income countries
- The 2G-4G “under-connected” gap is narrowing spurred by rapid 4G adoption in low-income countries
- Mobile broadband data is more affordable on average, but just over half the countries in the Index have had price increases
- There is a gender gap in Internet access in 80% of Index countries
- The UK, Namibia and Ireland are enabling female e-inclusion
- Internet use is empowering, especially to citizens in Asia, the Middle East and Africa

# Pakistan's Metrics

Indicator	Global	SSA	MENA	Asia	Pakistan	Europe	Latin America	North America
<b>Internet users</b> (% of households)	53.4	20.0	74.4	52.3	<b>22.1</b>	80.9	42.3	86.6
<b>Mobile subscribers</b> (per 100 inhabitants; %)	107.9	81.9	125.2	111.8	<b>71.4</b>	119.4	114.7	105.6
<b>Average mobile download speed</b> (Kbps)	15,949	6,414	13,648	16,949	<b>7,015</b>	25,914	9,470	36,556
<b>Average mobile upload speed</b> (Kbps)	7,559	3,045	8,119	8,617	<b>4,249</b>	10,835	5,644	14,081
<b>Average mobile latency</b> (ms)	69.4	123.8	50.8	56.9	<b>78.0</b>	40.5	65.2	54.5
<b>Network coverage</b> (min. 2G) (% of population)	95.0	86.1	99.6	97.0	<b>87.0</b>	99.2	95.0	99.6
<b>Network coverage</b> (min. 3G) (% of population)	85.0	61.2	93.6	88.0	<b>67.0</b>	97.4	90.4	99.6
<b>Network coverage</b> (min. 4G) (% of population)	60.8	27.9	67.9	60.2	<b>27.0</b>	88.7	56.9	98.6
<b>Gender gap in internet access</b> (% difference between male & female)	33.5	62.2	22.9	52.2	<b>266.7</b>	5.5	7.1	0.6



# Country briefing: Pakistan



## Pakistan index performance

Category	Global rank/86	Asia rank/23
Overall	68	21
(1) Availability	77	23
(2) Affordability	43	13
(3) Relevance	70	19
(4) Readiness	68	19

## Pakistan: Largest YoY changes

Indicator	% change
Mobile phone cost (prepaid tariff)	+554.8%
Network coverage (min. 4G)	+68.8%
Network coverage (min. 3G)	+45.7%

## Pakistan: strengths

Sub-category	Global rank/86	Asia rank/23
(4.2) Trust & Safety	15	6
(2.2) Competitive Environment	44	13
(4.3) Policy	=48	16

## Pakistan: areas for improvement

Sub-category	Global rank/86	Asia rank/23
(1.1) Usage	86	23
(4.1) Literacy	85	23
(1.3) Infrastructure	78	23

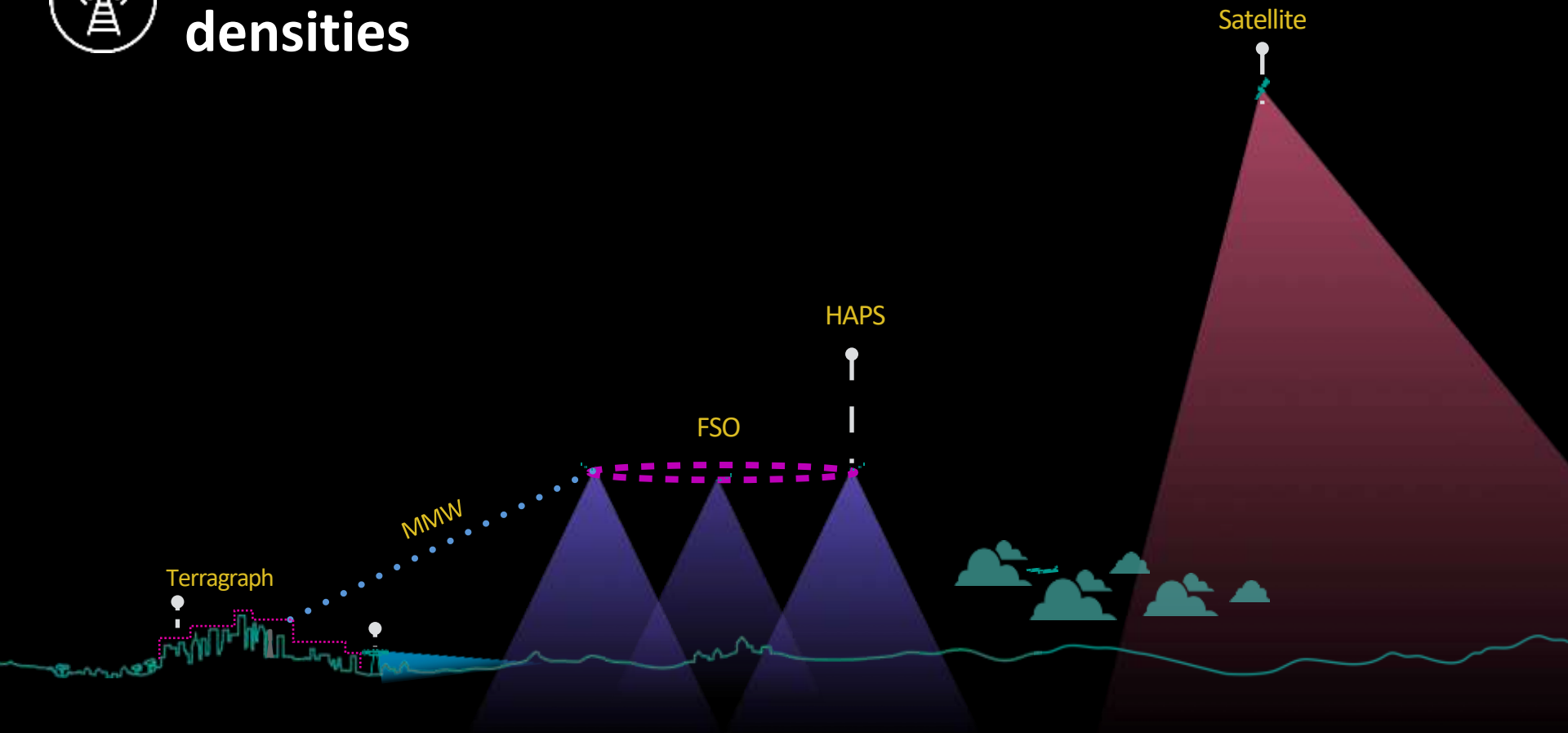
# Value of the Internet Survey: Asia

Question	Asia	Males	Females	Millennials	Gen X	Baby Boomers	Low income	High income
<b>Internet use frequency</b> (% who use 'several times a day')	<b>80%</b>	80%	79%	81%	82%	75%	79%	79%
<b>Mobile preference</b> (% mobile is primary device for internet)	<b>39%</b>	33%	44%	47%	39%	26%	42%	38%
<b>Internet use frequency (work)</b> (% who use 'several times a day' for work)	<b>42%</b>	45%	39%	45%	48%	32%	37%	51%
<b>Job prospects</b> (% who agree prospects have improved from internet use)	<b>73%</b>	75%	71%	78%	72%	67%	73%	77%
<b>Entertainment</b> (% who use internet for entertainment every day)	<b>75%</b>	76%	74%	82%	77%	65%	76%	79%
<b>Shopping</b> (% who use internet for shopping at least once a month)	<b>54%</b>	53%	55%	54%	57%	51%	49%	69%
<b>Independence</b> (% who say internet has made them more independent)	<b>59%</b>	61%	58%	63%	60%	53%	59%	71%
<b>Privacy concerns</b> (% who say privacy concerns have limited internet use)	<b>85%</b>	84%	86%	84%	85%	84%	84%	88%
<b>Security concerns</b> (% who say security concerns have limited internet use)	<b>51%</b>	49%	53%	52%	49%	51%	52%	50%
<b>Internet has improved life in my country</b> (% who agree)	<b>69%</b>	73%	65%	70%	70%	67%	66%	80%
<b>Internet access should be a human right</b> (% who agree)	<b>68%</b>	69%	67%	65%	71%	68%	67%	72%





# Connectivity platforms to serve different population densities



# connectivity.fb.com

- Analytics
- Free Basics
- High-Altitude Connectivity
- Open Cellular
- Rural Access
- Shared Backhaul Infra
- Terragraph
- Wi-Fi



# Open Cellular

As an open-source wireless access platform, OpenCellular is focused on developing new and affordable mobile base station technology that can help expand network capacity and coverage, making it more cost-effective for operators to deploy networks in rural places where coverage is scarce.

OpenCellular can be deployed to support a range of access and backhaul options, from a mobile network-in-a-box to an access point supporting everything from 2G to Wi-Fi to LTE.



# Shared Backhaul

As the highway to connectivity, reliable fiber and wireless backhaul allows multiple operators to benefit from the infrastructure we're putting in place with our partners. In addition to expanding capacity, we expect that our backhaul investments will help reduce network costs and improve performance.

As an early step forward, working with our partners, we've completed a 770km fiber build in northwest Uganda, that will cover more than 3 million people and enable future cross-border connectivity to neighboring countries.



# Free Basics

Even in areas where internet access is available, the benefits of connectivity may not be obvious.

The [Free Basics](#) program addresses this barrier by partnering with mobile operators to provide people with useful online services — such as news, health information, local jobs, communications tools, education resources, and local government information – without data charges.

By allowing people to experience the relevance and value of being online, Free Basics provides an onramp to the broader internet.



# Enabling policies

- Need new frameworks that support innovation, investment, new business models, competition that (re)align economics with incentives, complexity and competition
- Supply side: policies (not just regulation) that lower costs, speed deployment—e.g., more spectrum/reduce cost
- Demand side: policies that foster relevance and readiness; e.g., local content/language, eGov services, low cost/free apps
- Transition is difficult but answer is not more traditional regulation—competition enables less regulation that is sensible, appropriate, proportionate to close the gaps



**Thank you!**  
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