Digital Inequality in BRICS

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Part of SDGs
Including 4.4 on education and 17.6-17.8 on Industry 4.0

Constantly on BRICS agenda
Since 2015 and of high relevance for all members

Highly relevant
In time of lockdowns

Incorporates three levels
Including infrastructure, digital skills and social advantages

Scope for research and cooperation
Given no universally accepted definition and assessment methodology of digital literacy

Digital inequality

BRICS digital agenda

2013	2015	2016	2018	2019	2020
eThekwini Declaration	Ufa Declaration	Goa Declaration	Goa Declaration	5th Meeting of ICT ministers	Strategy for BRICS economic partnership 2025
Role of the internet in promoting economic and social development	Importance of ICT in sustainable development; first meeting of ICT ministers	The value of sharing experiences among BRICS in bridging the digital divide	Creation of PartNIR	Digital connectivity is a key enabler of the inclusive growth and sustainable development	Digital Economy is an independent block in the new strategy

BRICS in international ratings

	B	R	I	C	S
ICT Development Index | ITU 2017 (place of 176)	67	43	138	83	88
Digital Competitiveness Ranking| IMD 2020 (of 63)	51	43	48	16	60
E-Government Development Index | UN DESA 2020 (of 193)	54	36	100	45	78
Network Readiness Index | Portulans 2020 (of 134)	59	48	88	40	76
Inclusive Internet Index| The Economist 2021 (of 120)	36	25	49	39	47

All five BRICS members
are actively implementing digitalization policies

Building of infrastructure
Is the most popular measure for spreading Internet access, it is included in the programme documents of all five countries

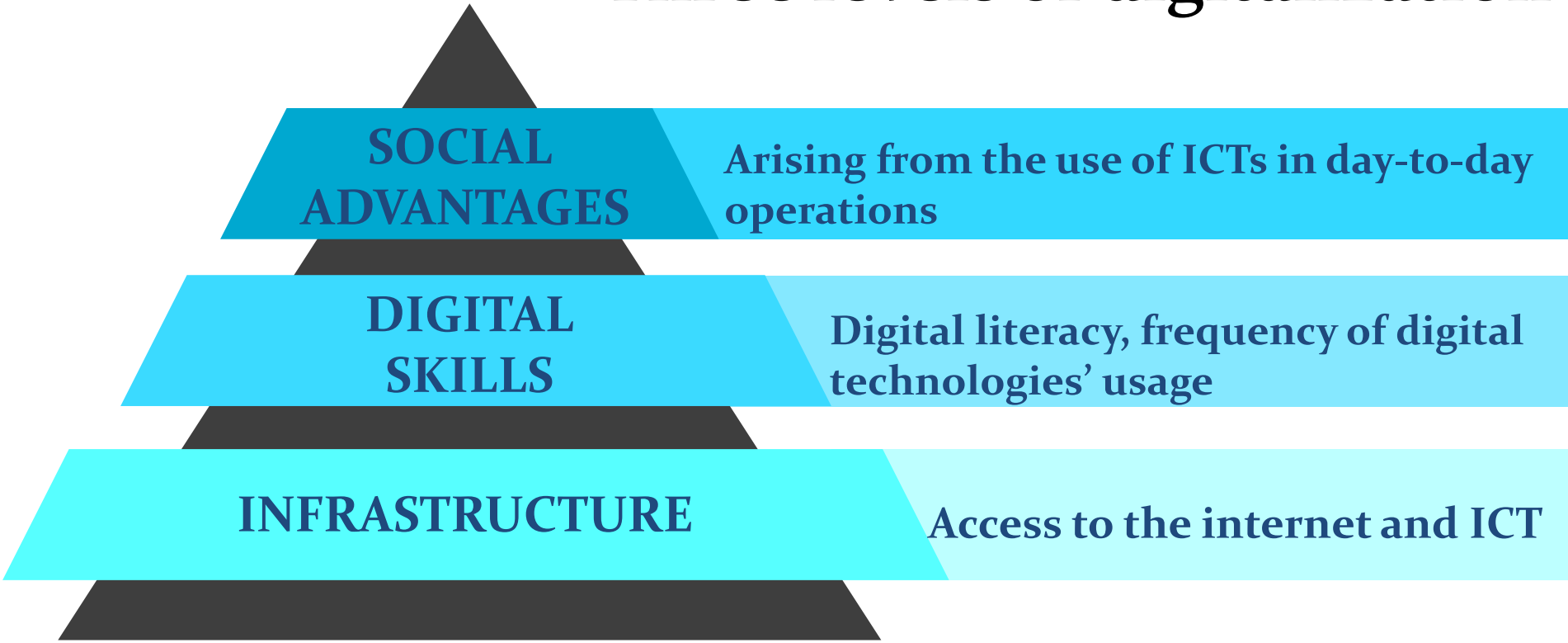
Digital divide indicators

	Brazil	India	China	Russia	SAR
Access					
Mobile broadband subscriptions (per 100 inhabitants)	90.2	25.8	83.6	80.8	70
Download speed, fixed bb (Mbps)	47.8	38	101.3	60.7	27.9
Usage					
Use of virtual social networks (%)	66	23	71	49	40
Internet shopping (% of pop)	14.2	2.9	45.3	26.9	7.9
Adult literacy (% of pop)	93.2	74.4	96.8	99.7	87
Opportunities					
OSI (Online Service Index), UN DESA	0.92	0.95	0.86	0.92	0.83
Firms with website (% of firms)	54	48.9	66.1	64.6	36

There are extensive data on national level

Which allows for comparison between countries, but there are less detailed data on the regional level

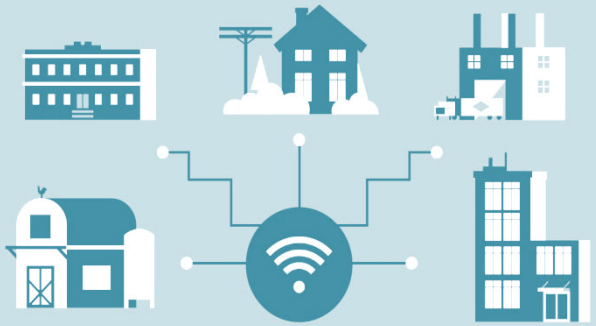
Three levels of digitalization



In BRICS, digital divide of the second level

i.e. "capabilities for harnessing digital data and frontier technologies", comes to the fore with the development of ICT infrastructure

First-level digital divide in BRICS



	B	R	I	C	S
Inequality by region groups within BRICS					
Economic centers	81	88	96	76	72
Developed	73	81	46	59	55
Middle-income	63	79	36	50	59
Less developed	56	83	29	44	48
Total	**70**	**82**	**37**	**53**	**62**
Inequality indicators					
Relative variability	0.56	0.34	3.58	0.72	0.51
Variation ratio	0.14	0.07	0.69	0.19	0.16
Theil index	0.01	0.002	0.02	0.17	0.01

Monitoring of regional inequality is essential

To perceive whether an increase in the application of digital technologies at the national level is accompanied by the lagging behind of least developed areas

	B	R	I	C	S
Digital literacy		70%	20%		
Share of people who do not use the internet due to the lack of knowledge (% of non-netizens)	24%			52%	13%

- **Second-level digital divide**
  becomes more important with the development of digital infrastructure
- **India and Russia**
  regularly assess digital literacy levels
- **Brazil, China, South Africa**
  conduct sample surveys on ICT issues, which include the question on reasons for not using internet

Second-level digital divide

DigComp 2.0

- Used in EU, Russia, UNESCO Digital Literacy Global Framework;
- covers 21 components of digital competence within the following five areas
  - Information and data literacy;
  - Communication and collaboration;
  - Digital content creation;
  - Safety;
  - Problem solving.

Comprehensive, but too complex for realization in wide range of countries

India (*PMGDISHA* program)

- Used to evaluate outcomes of Indian digital literacy program by following indicators:
  - Sending an e-mail
  - Opening and using e-government service portal, applying for certificates;
  - Registration on online learning and Scholarship portals;
  - Creating login credentials for Indian Railways Catering and Tourism Corporation;
  - Applying online for insurance;
  - Executing at least 5 electronic payments

Focused on national priorities, such as ability to deal with government e-services

Digitalization of agriculture

	Urban	Rural	Total
Brazil	80	59	70
India	76	16	37
China	75	35	53
Russia	82	71	82
S.Africa	62	40	62

Different competencies – potential for cooperation

- Russia – coverage of rural areas
- Brazil – digital agriculture
- China – big data on agriculture and digital platform for support
- India – large number of programs supporting digital agriculture development

Potential for cooperation

Cases

Of best projects, effective technologies and comprehensive national strategies aimed at increase of broadband internet coverage

Methodology

Of digital literacy assessment best suited for developing countries and reflecting their priorities, including abilities to use e-government services and access to digital agriculture programs

Curriculum

Aimed at increase of digital literacy levels, including establishment of BRICS Digital Literacy School