Digital Literacy Framework: BRICS approach

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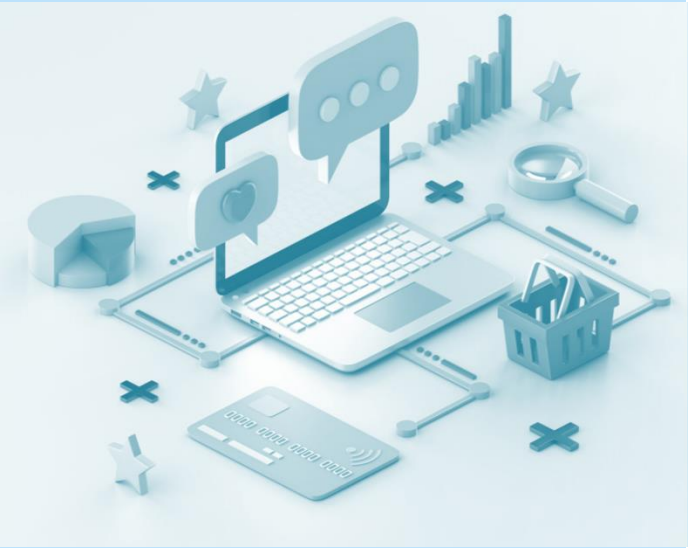
Internet users profile



	Adv. Ec.	Trans. Ec.	Dev. - Africa	Dev. - Asia	Dev.- LA
Top Internet activities undertaken by individuals, %					
Social networks	70	71	86	87	79
E-mailing	85	45	47	60	52
Information on goods	84	51	31	68	52
Reading online	76	42	39	46	30
Music/video/games	57	53	64	66	51
Making calls	57	71	48	63	73

Source: UN (2021) Digital economy report

Participation in social media is high in all the regions

Whereas doing a formal online course ranges from 8% to 28%, and using internet for learning purposes is also low: from 13% to 31%

Definition of Digital literacy

Paul Glister, 1997:

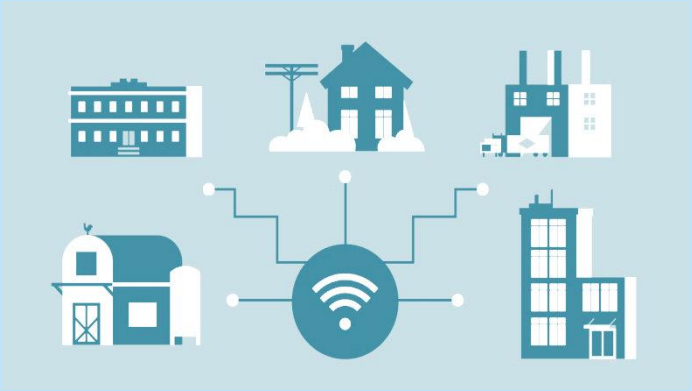
"the ability to access networked computer resources and use them"

UNESCO, 2018:

"the ability to access, manage, understand, integrate, communicate, evaluate and create information safely and appropriately through digital technologies for employment, decent jobs and entrepreneurship"

A clear trend towards broadening the concept to include areas that are not directly related to ICT and digital technologies, such as information evaluation and critical reasoning (or information literacy)

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

Source: Morozkina (2020) Regional Perspective of Digitalization in BRICS

Regional inequality and internet access in remote areas is the main challenge for all five countries. A decrease of digital gap at the national level must be accompanied by respective progress in the 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%			48%	13%

Source: Morozkina, Tonkikh (2021) Developing a BRICS-Led Digital Literacy Framework

- **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

Russia

- NAFI Analytical Centre
- Based on DigComp 2.0;
- covers 21 components of digital competence within the following five areas
  - Information literacy;
  - Communication literacy;
  - Digital content creation;
  - Safety;
  - Problem solving.

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

India

- National Statistical office
- Indicators of Household Social Consumption on Education in India
  - Ability to use internet meant that the household member was able to use internet browser for website navigation, using e-mail and social networking applications, etc., to find, evaluate and communicate information.
- Digital literacy improvement program - (PGDISHA)

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

Brazil

- Cetic.br – assessment of usage of digital technologies;
- Components of Digital Competence Framework for Educators (DigCompEdu)
  - Collaboration;
  - Professional development;
  - Digital resources;
  - Teaching and learning;
  - Information and media literacy;
  - Digital communication and collaboration;
  - Responsible use

China

- China Internet Network Information Center
- Statistical Report on China's Internet Development
- 14th Five-year Plan for National Informatization:
  - By 2023: establishment of a nationwide digital skills education system
  - Improvement of digital literacy and information skills of disadvantaged groups
- Academic research (Fan, C., Wang, J., 2022), which is partly based on Chinese legislation

South Africa

- Statistics South Africa
- General Household survey
- Answer
- Lack of knowledge/ skills/ confidence to the question about the main reason for not having internet access at home

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 programs and comprehensive national strategies aimed at increase of digital literacy

Methodology

Of narrow 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 and platform for exchange of best practices