The Network Readiness Index (NRI) is one of the leading global indices on the application and impact of information and communication technology (ICT) in economies around the world. In its latest version of 2023 the NRI Report maps the network-based readiness landscape of 134 economies based on their performances in four different pillars: Technology, People, Governance, and Impact. Each of these pillars is itself comprised of three sub-pillars (see Figure 1) that have been populated by a total of 58 variables.

Figure 1: The NRI 2023 model

Global NRI position of Nigeria
Nigeria ranks 106th out of the 134 economies included in the NRI 2023 (Figure 2). Its main strength relates to Technology. The greatest scope for improvement, meanwhile, concerns Impact.

Figure 2: Nigeria global ranking, overall and by pillar
Performance at sub-pillar level
When it comes to sub-pillars, the strongest showings of Nigeria relate to Businesses, Content and Trust, among others (Table 1). More could be done, though, to improve the economy’s performances in the Individuals, Inclusion and SDG Contribution sub-pillars.

Table 1: Nigeria rankings by sub-pillar

<table>
<thead>
<tr>
<th>Sub-pillar</th>
<th>Rank</th>
<th>Sub-pillar</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Businesses</td>
<td>44</td>
<td>Future Technologies</td>
<td>99</td>
</tr>
<tr>
<td>Content</td>
<td>69</td>
<td>Regulation</td>
<td>109</td>
</tr>
<tr>
<td>Trust</td>
<td>82</td>
<td>Quality of Life</td>
<td>109</td>
</tr>
<tr>
<td>Economy</td>
<td>85</td>
<td>Individuals</td>
<td>120</td>
</tr>
<tr>
<td>Access</td>
<td>89</td>
<td>Inclusion</td>
<td>131</td>
</tr>
<tr>
<td>Governments</td>
<td>95</td>
<td>SDG Contribution</td>
<td>131</td>
</tr>
</tbody>
</table>

NRI score and income
Figure 3 shows the position of Nigeria in terms of both NRI score and GDP per capita (PPP). The trend line shows the expected NRI score given an economy's income level. As can be seen, Nigeria is slightly above the trend line, which suggests that its network readiness is more or less in line with what would be expected given its income level.

Figure 3: NRI score and GDP per capita PPP (log)

Note: USA = United States (rank: 1), SGP = Singapore (rank: 2), FIN = Finland (3), NLD = Netherlands (4), SWE = Sweden (5), CHN = China (20), IND = India (61). Nigeria belongs to the group of lower-middle-income countries, where the best performer is Ukraine (UKR). The top performer of its region - Africa is Kenya (KEN).
Performance against its income group and region

Lower-middle-income countries
Nigeria is ranked 25th in the group of lower-middle-income countries (Figure 4, left panel). In terms of pillar performance, it has a score higher than the income group average in one of the four pillars: Technology. At the sub-pillar level, it outperforms lower-middle-income countries in six of the twelve sub-pillars: Access, Content, Businesses, Governments, Trust and Economy.

Africa
Nigeria is ranked 10th within Africa (Figure 4, right panel). It has a score above the regional average in three of the four pillars: NRI, Technology, People and Impact. With regard to sub-pillars, it outperforms the average in Africa in eight of the twelve sub-pillars: Access, Content, Future Technologies, Businesses, Governments, Trust, Economy and Quality of Life.

Table 2: Nigeria scores vs. averages of its income group and region, overall and by pillar

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Nigeria</th>
<th>Lower-middle-income countries</th>
<th>Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRI</td>
<td>35.73</td>
<td>38.41</td>
<td>32.14</td>
</tr>
<tr>
<td>Technology</td>
<td>34.42</td>
<td>32.12</td>
<td>25.14</td>
</tr>
<tr>
<td>People</td>
<td>33.89</td>
<td>34.38</td>
<td>26.19</td>
</tr>
<tr>
<td>Governance</td>
<td>37.40</td>
<td>43.27</td>
<td>40.44</td>
</tr>
<tr>
<td>Impact</td>
<td>37.20</td>
<td>43.89</td>
<td>36.77</td>
</tr>
</tbody>
</table>
Strongest and weakest indicators

The indicators where Nigeria performs particularly well include 1.2.4 AI scientific publications, 2.2.4 Annual investment in telecommunication services, and 4.1.4 Domestic market size (Table 3). By contrast, the economy’s weakest indicators include 4.3.5 SDG 11: Sustainable Cities and Communities, 4.2.4 Healthy life expectancy at birth, and 3.3.2 Socioeconomic gap in use of digital payments.

Table 3: Highlight of Strengths and Opportunities for Nigeria

<table>
<thead>
<tr>
<th>Strongest indicators</th>
<th>Rank</th>
<th>Weakest indicators</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2.4 AI scientific publications</td>
<td>18</td>
<td>2.2.1 Firms with website</td>
<td>105</td>
</tr>
<tr>
<td>2.2.4 Annual investment in telecommunication services</td>
<td>19</td>
<td>3.3.5 Rural gap in use of digital payments</td>
<td>122</td>
</tr>
<tr>
<td>4.1.4 Domestic market size</td>
<td>26</td>
<td>3.3.2 Socioeconomic gap in use of digital payments</td>
<td>124</td>
</tr>
<tr>
<td>2.2.3 Knowledge intensive employment</td>
<td>34</td>
<td>4.2.4 Healthy life expectancy at birth</td>
<td>125</td>
</tr>
<tr>
<td>3.2.2 ICT regulatory environment</td>
<td>45</td>
<td>4.3.5 SDG 11: Sustainable Cities and Communities</td>
<td>131</td>
</tr>
<tr>
<td>4.2.3 Income inequality</td>
<td>51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.2 Cybersecurity</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1.5 International Internet bandwidth</td>
<td>63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1.2 High-tech exports</td>
<td>67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1.2 Handset prices</td>
<td>69</td>
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</table>

Note: For the full list of strengths and weaknesses, see At-A-Glance table.
# Network Readiness Index 2023

## NRI 2023 At-A-Glance: Nigeria

### Network Readiness Index

<table>
<thead>
<tr>
<th>Pillar/sub-pillar</th>
<th>Rank</th>
<th>Score</th>
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<tbody>
<tr>
<td>A. Technology pillar</td>
<td>88</td>
<td>34.42</td>
</tr>
<tr>
<td>1st sub-pillar: Access</td>
<td>89</td>
<td>55.57</td>
</tr>
<tr>
<td>2nd sub-pillar: Content</td>
<td>69</td>
<td>22.29</td>
</tr>
<tr>
<td>3rd sub-pillar: Future Technologies</td>
<td>99</td>
<td>25.40</td>
</tr>
<tr>
<td>B. People pillar</td>
<td>96</td>
<td>33.89</td>
</tr>
<tr>
<td>1st sub-pillar: Individuals</td>
<td>120</td>
<td>20.71</td>
</tr>
<tr>
<td>2nd sub-pillar: Businesses</td>
<td>44</td>
<td>52.97</td>
</tr>
<tr>
<td>3rd sub-pillar: Governments</td>
<td>95</td>
<td>28.00</td>
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<tr>
<td>C. Governance pillar</td>
<td>114</td>
<td>37.40</td>
</tr>
<tr>
<td>1st sub-pillar: Trust</td>
<td>82</td>
<td>35.41</td>
</tr>
<tr>
<td>2nd sub-pillar: Regulation</td>
<td>109</td>
<td>50.62</td>
</tr>
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<td>3rd sub-pillar: Inclusion</td>
<td>131</td>
<td>26.17</td>
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<td>D. Impact pillar</td>
<td>116</td>
<td>37.20</td>
</tr>
<tr>
<td>1st sub-pillar: Economy</td>
<td>85</td>
<td>22.51</td>
</tr>
<tr>
<td>2nd sub-pillar: Quality of Life</td>
<td>109</td>
<td>50.53</td>
</tr>
<tr>
<td>3rd sub-pillar: SDG Contribution</td>
<td>131</td>
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### The Network Readiness Index in detail

<table>
<thead>
<tr>
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<tr>
<td>A. Technology pillar</td>
<td>88</td>
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<tr>
<td>1st sub-pillar: Access</td>
<td>89</td>
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<tr>
<td>1.1.1 Mobile tariffs</td>
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<td>45.92</td>
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<td>1.1.5 International Internet bandwidth</td>
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<td>1.1.6 Internet access in schools</td>
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<tr>
<td>2nd sub-pillar: Content</td>
<td>69</td>
<td>22.29</td>
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<td>1.2.1 GitHub commits</td>
<td>83</td>
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<td>1.2.2 Internet domain registrations</td>
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<td>0.49</td>
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<th>Indicator</th>
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<tr>
<td>1st sub-pillar: Trust</td>
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<tr>
<td>2nd sub-pillar: Regulation</td>
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<td>50.62</td>
</tr>
<tr>
<td>3rd sub-pillar: Inclusion</td>
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<td>26.17</td>
</tr>
<tr>
<td>1st sub-pillar: Economy</td>
<td>85</td>
<td>22.51</td>
</tr>
<tr>
<td>2nd sub-pillar: Quality of Life</td>
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<td>50.53</td>
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<td>3rd sub-pillar: SDG Contribution</td>
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<td>38.56</td>
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<thead>
<tr>
<th>Indicator</th>
<th>Rank</th>
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<td>3.1.1 Secure Internet servers</td>
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<td>3.1.2 Cybersecurity</td>
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<tr>
<td>3.1.3 Online access to financial account</td>
<td>80</td>
<td>19.70</td>
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<td>3.1.4 Internet shopping</td>
<td>117</td>
<td>3.23</td>
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<td>3.2.1 Regulatory quality</td>
<td>123</td>
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<td>3.2.2 ICT regulatory environment</td>
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<tr>
<td>3.2.3 Regulation of emerging technologies</td>
<td>105</td>
<td>18.70</td>
</tr>
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<td>3.2.4 E-commerce legislation</td>
<td>87</td>
<td>66.67</td>
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<tr>
<td>3.2.5 Privacy protection by law content</td>
<td>90</td>
<td>52.16</td>
</tr>
<tr>
<td>3.3.1 E-Participation</td>
<td>104</td>
<td>29.07</td>
</tr>
<tr>
<td>3.3.2 Socioeconomic gap in use of digital payments</td>
<td>124</td>
<td>33.24</td>
</tr>
<tr>
<td>3.3.3 Availability of local online content</td>
<td>117</td>
<td>27.40</td>
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<tr>
<td>Indicator</td>
<td>Rank</td>
<td>Score</td>
</tr>
<tr>
<td>-----------</td>
<td>------</td>
<td>-------</td>
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<tr>
<td>1.3.3 Robot density</td>
<td>NA</td>
<td>NA</td>
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<td>1.3.4 Computer software spending</td>
<td>88</td>
<td>10.29</td>
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<td>96</td>
<td>33.89</td>
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<td>20.71</td>
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<td>2.1.1 Mobile broadband internet traffic within the country</td>
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<td>7.52</td>
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<tr>
<td>2.1.2 ICT skills in the education system</td>
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<td>2.1.3 Use of virtual social networks</td>
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<td>2.1.4 Tertiary enrollment</td>
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<td>2.1.5 Adult literacy rate</td>
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<td>48.14</td>
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<td>2.1.6 AI talent concentration</td>
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<td>NA</td>
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<td>2nd sub-pillar: Businesses</td>
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<td>2.2.1 Firms with website</td>
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<td>14.79 ○</td>
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<td>2.2.2 GERD financed by business enterprise</td>
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<td>NA</td>
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<tr>
<td>2.2.3 Knowledge intensive employment</td>
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<td>57.66 ●</td>
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<td>2.2.4 Annual investment in telecommunication services</td>
<td>19</td>
<td>86.47 ●</td>
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<td>2.2.5 GERD performed by business enterprise</td>
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<td>NA</td>
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<tr>
<td>3rd sub-pillar: Governments</td>
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</tr>
<tr>
<td>2.3.1 Government online services</td>
<td>93</td>
<td>47.50</td>
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<tr>
<td>2.3.2 Publication and use of open data</td>
<td>73</td>
<td>19.12</td>
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<td>2.3.3 Government promotion of investment in emerging tech</td>
<td>110</td>
<td>17.38</td>
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<tr>
<td>2.3.4 R&amp;D expenditure by governments and higher education</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

NOTE: ● a strength and ○ a weakness.
Sources


Nakazawa, M. (2019). fmsb: Functions for Medical Statistics Book with some Demographic Data. R package version 0.7.0. URL: https://CRAN.R-project.org/package=fmsb


