Uruguay

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 Uruguay
Uruguay ranks 45th out of the 134 economies included in the NRI 2023 (Figure 2). Its main strength relates to Impact. The greatest scope for improvement, meanwhile, concerns Governance.

Figure 2: Uruguay global ranking, overall and by pillar
Performance at sub-pillar level

When it comes to sub-pillars, the strongest showings of Uruguay relate to Individuals, Content and Governments, among others (Table 1). More could be done, though, to improve the economy’s performances in the Future Technologies, Inclusion and Businesses sub-pillars.

<table>
<thead>
<tr>
<th>Sub-pillar</th>
<th>Rank</th>
<th>Sub-pillar</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals</td>
<td>25</td>
<td>SDG Contribution</td>
<td>45</td>
</tr>
<tr>
<td>Content</td>
<td>32</td>
<td>Economy</td>
<td>49</td>
</tr>
<tr>
<td>Governments</td>
<td>36</td>
<td>Trust</td>
<td>58</td>
</tr>
<tr>
<td>Regulation</td>
<td>36</td>
<td>Future Technologies</td>
<td>64</td>
</tr>
<tr>
<td>Access</td>
<td>40</td>
<td>Inclusion</td>
<td>71</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>44</td>
<td>Businesses</td>
<td>86</td>
</tr>
</tbody>
</table>

NRI score and income

Figure 3 shows the position of Uruguay 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, Uruguay 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). Uruguay belongs to the group of high-income countries, where the best performer is United States of America (USA). The top performer of its region-The Americas-is also United States of America (USA).
Performance against its income group and region

**High-income countries**
Uruguay is ranked 39th in the group of high-income countries (Figure 4, left panel). In terms of pillar performance, it has a score below the income group average in each of the four pillars. At the sub-pillar level, it outperforms high-income countries in one of the twelve sub-pillars: Individuals.

**The Americas**
Uruguay is ranked 4th within The Americas (Figure 4, right panel). It outperforms its region in each of the four pillars. With regard to sub-pillars, it outperforms the average in The Americas in eleven of the twelve sub-pillars: Access, Content, Future Technologies, Individuals, Governments, Trust, Regulation, Inclusion, Economy, Quality of Life and SDG Contribution.

![Figure 4: Performance of Uruguay against its income group and region, overall and by pillar](image)

| Table 2: Uruguay scores vs. averages of its income group and region, overall and by pillar |
|-------------------------------|------------------|------------------|------------------|
| **Dimension** | **Uruguay** | **High-income countries** | **The Americas** |
| NRI | 54.50 | 64.07 | 47.41 |
| Technology | 47.80 | 55.76 | 38.24 |
| People | 47.80 | 56.99 | 42.35 |
| Governance | 62.12 | 76.81 | 54.12 |
| Impact | 60.29 | 66.73 | 54.93 |
**Strongest and weakest indicators**

The indicators where Uruguay performs particularly well include 3.2.4 E-commerce legislation, 4.1.6 ICT services exports, and 3.3.4 Gender gap in Internet use (Table 3). By contrast, the economy’s weakest indicators include 1.3.2 Investment in emerging technologies, 3.3.5 Rural gap in use of digital payments, and 1.2.4 AI scientific publications.

<table>
<thead>
<tr>
<th>Strongest indicators</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2.4 E-commerce legislation</td>
<td>1</td>
</tr>
<tr>
<td>4.1.6 ICT services exports</td>
<td>7</td>
</tr>
<tr>
<td>3.3.4 Gender gap in Internet use</td>
<td>10</td>
</tr>
<tr>
<td>1.2.1 GitHub commits</td>
<td>11</td>
</tr>
<tr>
<td>2.3.2 Publication and use of open data</td>
<td>14</td>
</tr>
<tr>
<td>2.1.5 Adult literacy rate</td>
<td>24</td>
</tr>
<tr>
<td>4.2.1 Happiness</td>
<td>24</td>
</tr>
<tr>
<td>2.1.3 Use of virtual social networks</td>
<td>25</td>
</tr>
<tr>
<td>3.2.5 Privacy protection by law content</td>
<td>28</td>
</tr>
<tr>
<td>4.3.1 SDG 3: Good Health and Well-Being</td>
<td>32</td>
</tr>
<tr>
<td>4.3.4 SDG 7: Affordable and Clean Energy</td>
<td>33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weakest indicators</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.2 GERD financed by business enterprise</td>
<td>81</td>
</tr>
<tr>
<td>4.1.5 Prevalence of gig economy</td>
<td>97</td>
</tr>
<tr>
<td>1.2.4 AI scientific publications</td>
<td>100</td>
</tr>
<tr>
<td>1.3.2 Investment in emerging technologies</td>
<td>106</td>
</tr>
<tr>
<td>3.3.5 Rural gap in use of digital payments</td>
<td>106</td>
</tr>
</tbody>
</table>

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

**Network Readiness Index**

**Rank:** 45 (out of 134)  
**Score:** 54.50

<table>
<thead>
<tr>
<th>Pillar/sub-pillar</th>
<th>Rank</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Technology pillar</td>
<td>44</td>
<td>47.80</td>
</tr>
<tr>
<td>1st sub-pillar: Access</td>
<td>40</td>
<td>72.06</td>
</tr>
<tr>
<td>2nd sub-pillar: Content</td>
<td>32</td>
<td>38.83</td>
</tr>
<tr>
<td>3rd sub-pillar: Future Technologies</td>
<td>64</td>
<td>32.51</td>
</tr>
<tr>
<td>B. People pillar</td>
<td>50</td>
<td>47.80</td>
</tr>
<tr>
<td>1st sub-pillar: Individuals</td>
<td>25</td>
<td>56.51</td>
</tr>
<tr>
<td>2nd sub-pillar: Businesses</td>
<td>86</td>
<td>37.89</td>
</tr>
<tr>
<td>3rd sub-pillar: Governments</td>
<td>36</td>
<td>48.99</td>
</tr>
<tr>
<td>C. Governance pillar</td>
<td>55</td>
<td>62.12</td>
</tr>
<tr>
<td>1st sub-pillar: Trust</td>
<td>58</td>
<td>49.78</td>
</tr>
<tr>
<td>2nd sub-pillar: Regulation</td>
<td>36</td>
<td>76.57</td>
</tr>
<tr>
<td>3rd sub-pillar: Inclusion</td>
<td>71</td>
<td>60.03</td>
</tr>
<tr>
<td>D. Impact pillar</td>
<td>38</td>
<td>60.29</td>
</tr>
<tr>
<td>1st sub-pillar: Economy</td>
<td>49</td>
<td>34.28</td>
</tr>
<tr>
<td>2nd sub-pillar: Quality of Life</td>
<td>44</td>
<td>74.46</td>
</tr>
<tr>
<td>3rd sub-pillar: SDG Contribution</td>
<td>45</td>
<td>72.12</td>
</tr>
</tbody>
</table>

#### The Network Readiness Index in detail

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Rank</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Technology pillar</td>
<td>44</td>
<td>47.80</td>
</tr>
<tr>
<td>1st sub-pillar: Access</td>
<td>40</td>
<td>72.06</td>
</tr>
<tr>
<td>1.1.1 Mobile tariffs</td>
<td>41</td>
<td>74.22</td>
</tr>
<tr>
<td>1.1.2 Handset prices</td>
<td>49</td>
<td>58.42</td>
</tr>
<tr>
<td>1.1.3 FTTH/building Internet subscriptions</td>
<td>48</td>
<td>35.71</td>
</tr>
<tr>
<td>1.1.4 Population covered by at least a 3G mobile network</td>
<td>92</td>
<td>98.45</td>
</tr>
<tr>
<td>1.1.5 International Internet bandwidth</td>
<td>97</td>
<td>65.69</td>
</tr>
<tr>
<td>1.1.6 Internet access in schools</td>
<td>27</td>
<td>99.88</td>
</tr>
<tr>
<td>2nd sub-pillar: Content</td>
<td>32</td>
<td>38.83</td>
</tr>
<tr>
<td>1.2.1 GitHub commits</td>
<td>11</td>
<td>72.35</td>
</tr>
<tr>
<td>1.2.2 Internet domain registrations</td>
<td>44</td>
<td>10.44</td>
</tr>
<tr>
<td>1.2.3 Mobile apps development</td>
<td>47</td>
<td>71.39</td>
</tr>
<tr>
<td>1.2.4 AI scientific publications</td>
<td>100</td>
<td>1.16</td>
</tr>
<tr>
<td>3rd sub-pillar: Future Technologies</td>
<td>64</td>
<td>32.51</td>
</tr>
<tr>
<td>1.3.1 Adoption of emerging technologies</td>
<td>54</td>
<td>51.47</td>
</tr>
<tr>
<td>1.3.2 Investment in emerging technologies</td>
<td>106</td>
<td>27.00</td>
</tr>
</tbody>
</table>

**Indicator**

- **33.1** E-Participation | **61** 58.14
- **33.2** Socioeconomic gap in use of digital payments | **75** 69.00
- **33.3** Availability of local online content | **62** 61.78

---

**A. Technology pillar**

- **1st sub-pillar: Access**
  - **1.1.1 Mobile tariffs**
    - **Rank:** 41  
      - **Score:** 74.22
  - **1.1.2 Handset prices**
    - **Rank:** 49  
      - **Score:** 58.42
  - **1.1.3 FTTH/building Internet subscriptions**
    - **Rank:** 48  
      - **Score:** 35.71
  - **1.1.4 Population covered by at least a 3G mobile network**
    - **Rank:** 92  
      - **Score:** 98.45
  - **1.1.5 International Internet bandwidth**
    - **Rank:** 97  
      - **Score:** 65.69
  - **1.1.6 Internet access in schools**
    - **Rank:** 27  
      - **Score:** 99.88

**B. People pillar**

- **1st sub-pillar: Individuals**
  - **1.2.1 GitHub commits**
    - **Rank:** 11  
      - **Score:** 72.35
  - **1.2.2 Internet domain registrations**
    - **Rank:** 44  
      - **Score:** 10.44
  - **1.2.3 Mobile apps development**
    - **Rank:** 47  
      - **Score:** 71.39
  - **1.2.4 AI scientific publications**
    - **Rank:** 100  
      - **Score:** 1.16

**C. Governance pillar**

- **1st sub-pillar: Trust**
  - **3.1.1 Secure Internet servers**
    - **Rank:** 56  
      - **Score:** 60.44
  - **3.1.2 Cybersecurity**
    - **Rank:** 72  
      - **Score:** 74.71
  - **3.1.3 Online access to financial account**
    - **Rank:** 67  
      - **Score:** 27.88
  - **3.1.4 Internet shopping**
    - **Rank:** 54  
      - **Score:** 36.09

**D. Impact pillar**

- **1st sub-pillar: Economy**
  - **2.1.1 Adoption of emerging technologies**
    - **Rank:** 54  
      - **Score:** 51.47
  - **2.1.2 Investment in emerging technologies**
    - **Rank:** 106  
      - **Score:** 27.00

- **2nd sub-pillar: Regulation**
  - **2.2.1 ICT regulatory environment**
    - **Rank:** 92  
      - **Score:** 70.00
  - **2.2.2 E-commerce legislation**
    - **Rank:** 1  
      - **Score:** 100.00

- **2.3.1 E-Participation**
  - **3.3.1 E-Participation**
    - **Rank:** 61  
      - **Score:** 58.14
  - **3.3.2 Socioeconomic gap in use of digital payments**
    - **Rank:** 75  
      - **Score:** 69.00
  - **3.3.3 Availability of local online content**
    - **Rank:** 62  
      - **Score:** 61.78

---
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Rank</th>
<th>Score</th>
<th>Indicator</th>
<th>Rank</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3.3 Robot density</td>
<td>NA</td>
<td>NA</td>
<td>3.3.4 Gender gap in Internet use</td>
<td>10</td>
<td>75.45</td>
</tr>
<tr>
<td>1.3.4 Computer software spending</td>
<td>71</td>
<td>19.07</td>
<td>3.3.5 Rural gap in use of digital payments</td>
<td>106</td>
<td>35.76</td>
</tr>
<tr>
<td><strong>B. People pillar</strong></td>
<td></td>
<td></td>
<td><strong>D. Impact pillar</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st sub-pillar: Individuals</td>
<td>50</td>
<td>47.80</td>
<td>1st sub-pillar: Economy</td>
<td>49</td>
<td>34.28</td>
</tr>
<tr>
<td>2.1.1 Mobile broadband internet traffic</td>
<td>74</td>
<td>7.35</td>
<td>4.1.1 High-tech and medium-high-tech</td>
<td>76</td>
<td>17.10</td>
</tr>
<tr>
<td>within the country</td>
<td></td>
<td></td>
<td>manufacturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1.2 ICT skills in the education system</td>
<td>51</td>
<td>55.57</td>
<td>4.1.2 High-tech exports</td>
<td>48</td>
<td>17.45</td>
</tr>
<tr>
<td>2.1.3 Use of virtual social networks</td>
<td>25</td>
<td>77.32</td>
<td>4.1.3 PCT patent applications</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>2.1.4 Tertiary enrollment</td>
<td>45</td>
<td>43.98</td>
<td>4.1.4 Domestic market size</td>
<td>89</td>
<td>43.96</td>
</tr>
<tr>
<td>2.1.5 Adult literacy rate</td>
<td>24</td>
<td>98.32</td>
<td>4.1.5 Prevalence of gig economy</td>
<td>97</td>
<td>27.62</td>
</tr>
<tr>
<td>2.1.6 AI talent concentration</td>
<td>NA</td>
<td>NA</td>
<td>4.1.6 ICT services exports</td>
<td>7</td>
<td>65.28</td>
</tr>
<tr>
<td>2nd sub-pillar: Businesses</td>
<td>86</td>
<td>37.89</td>
<td>2nd sub-pillar: Quality of Life</td>
<td>44</td>
<td>74.46</td>
</tr>
<tr>
<td>2.2.1 Firms with website</td>
<td>37</td>
<td>68.85</td>
<td>4.2.1 Happiness</td>
<td>24</td>
<td>80.32</td>
</tr>
<tr>
<td>2.2.2 GERD financed by business enterprise</td>
<td>81</td>
<td>5.20</td>
<td>4.2.2 Freedom to make life choices</td>
<td>35</td>
<td>83.78</td>
</tr>
<tr>
<td>2.2.3 Knowledge intensive employment</td>
<td>53</td>
<td>35.82</td>
<td>4.2.3 Income inequality</td>
<td>82</td>
<td>55.78</td>
</tr>
<tr>
<td>2.2.4 Annual investment in telecommunication</td>
<td>77</td>
<td>76.34</td>
<td>4.2.4 Healthy life expectancy at birth</td>
<td>46</td>
<td>77.94</td>
</tr>
<tr>
<td>services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2.5 GERD performed by business enterprise</td>
<td>58</td>
<td>3.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd sub-pillar: Governments</td>
<td>36</td>
<td>48.99</td>
<td>3rd sub-pillar: SDG Contribution</td>
<td>45</td>
<td>72.12</td>
</tr>
<tr>
<td>2.3.1 Government online services</td>
<td>52</td>
<td>73.93</td>
<td>4.3.1 SDG 3: Good Health and Well-Being</td>
<td>32</td>
<td>83.62</td>
</tr>
<tr>
<td>2.3.2 Publication and use of open data</td>
<td>14</td>
<td>70.59</td>
<td>4.3.2 SDG 4: Quality Education</td>
<td>51</td>
<td>36.51</td>
</tr>
<tr>
<td>2.3.3 Government promotion of investment</td>
<td>52</td>
<td>43.54</td>
<td>4.3.3 SDG 5: Women's economic opportunity</td>
<td>44</td>
<td>84.07</td>
</tr>
<tr>
<td>in emerging tech</td>
<td></td>
<td></td>
<td>4.3.4 SDG 7: Affordable and Clean Energy</td>
<td>33</td>
<td>78.54</td>
</tr>
<tr>
<td>2.3.4 R&amp;D expenditure by governments and</td>
<td>64</td>
<td>7.88</td>
<td>4.3.5 SDG 11: Sustainable Cities and</td>
<td>40</td>
<td>77.85</td>
</tr>
<tr>
<td>higher education</td>
<td></td>
<td></td>
<td>Communities</td>
<td></td>
<td></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


