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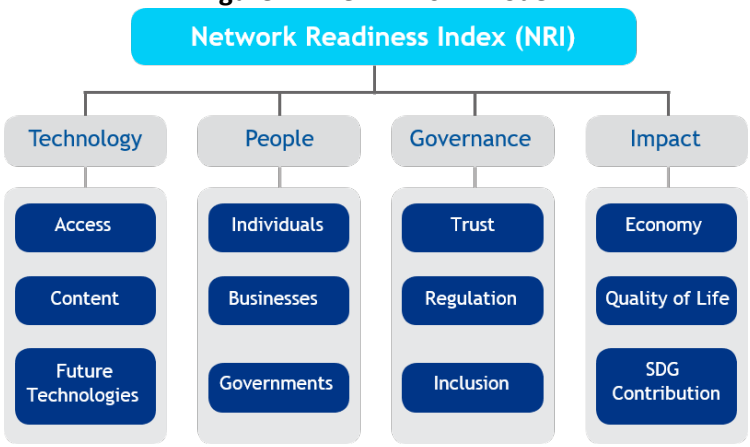
Network Readiness Index 2021 United States

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 2021 the NRI Report maps the network-based readiness landscape of 130 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 60 variables.

Figure 1: The NRI 2021 model



Global NRI position of United States

United States ranks 4th out of the 130 economies included in the NRI 2021 (Figure 2). Its main strength relates to Technology. The greatest scope for improvement, meanwhile, concerns Impact.

Figure 2: United States global ranking, overall and by pillar

Performance at sub-pillar level

When it comes to sub-pillars, the strongest showings of United States relate to Future Technologies, Access and Content, among others (Table 1). More could be done, though, to improve the economy's performances in the SDG Contribution, Regulation and Quality of Life sub-pillars.

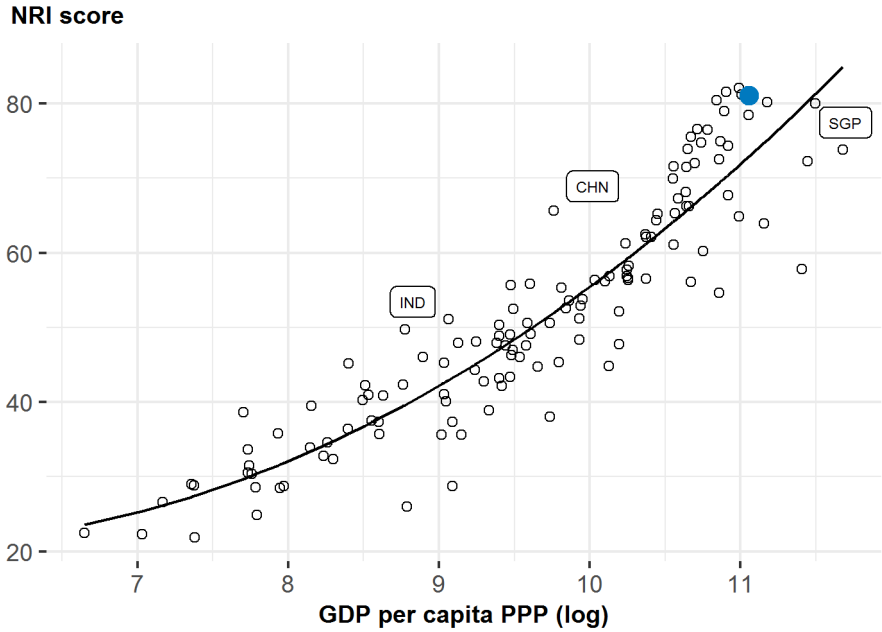
Table 1: United States rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Future Technologies	1	Governments	9
Access	2	Economy	9
Content	4	Individuals	13
Trust	4	SDG Contribution	15
Inclusion	4	Regulation	19
Businesses	9	Quality of Life	45

NRI score and income

Figure 3 shows the position of United States 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, United States is well above the trend line, which suggests that it has a greater network readiness than would be expected given its income level.

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



Note: NLD = Netherlands (rank: 1), SWE = Sweden (2), DNK = Denmark (3), CHN = China (29), IND = India (67). USA is ranked 4th. United States belongs to the group of high-income countries, where the best performer is Netherlands (NLD). The top performer of its region-The Americas- is United States (USA).

Performance against its income group and region

High-income countries

United States is ranked 4th in the group of high-income countries (Figure 4, left panel). In terms of pillar performance, it has a score higher than the income group average in each of the four pillars. At the sub-pillar level, it outperforms high-income countries in eleven of the twelve sub-pillars: Access, Content, Future Technologies, Individuals, Businesses, Governments, Trust, Regulation, Inclusion, Economy and SDG Contribution.

The Americas

United States is ranked 1st within The Americas (Figure 4, right panel). It outperforms its region in each of the four pillars. With regard to sub-pillars, it has a higher score than the regional average in each of the twelve sub-pillars.

Figure 4: Performance of United States against its income group and region, overall and by pillar

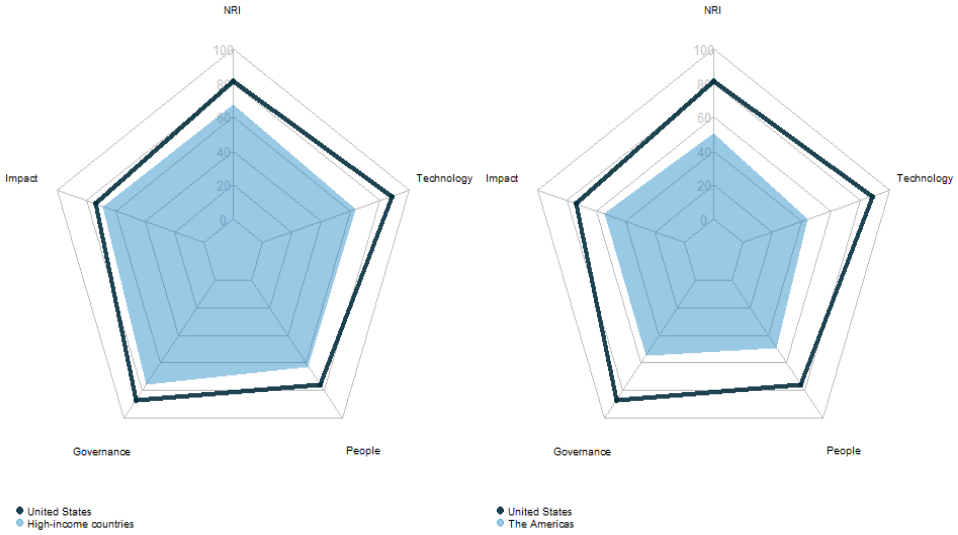


Table 2: United States scores vs. averages of its income group and region, overall and by pillar

Dimension	United States	High-income countries	The Americas
NRI	81.09	67.45	50.62
Technology	87.81	62.99	44.08
People	75.65	62.65	49.00
Governance	87.26	75.52	54.95
Impact	73.64	68.63	54.45

Strongest and weakest indicators

The indicators where United States performs particularly well include 1.1.2 Handset prices, 1.1.4 SMS sent by population 15-69, and 1.2.4 Mobile apps development (Table 3). By contrast, the economy's weakest indicators include 4.3.4 SDG 7: Affordable and Clean Energy, 4.2.3 Income inequality, and 3.2.5 Privacy protection by law content.

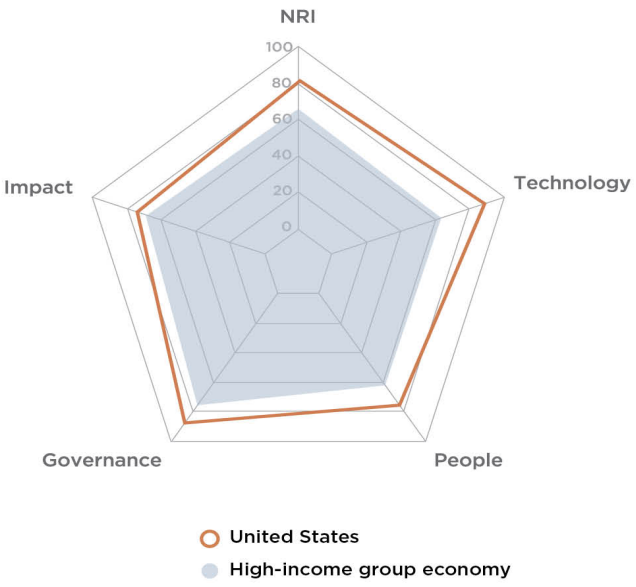
Table 3: Strongest and weakest indicators of United States

Strongest indicators	Rank	Weakest indicators	Rank
1.1.2 Handset prices	1	4.2.4 Healthy life expectancy at birth	65
1.1.4 SMS sent by population 15-69	1	3.2.5 Privacy protection by law content	76
1.2.4 Mobile apps development	1	4.2.3 Income inequality	81
1.3.2 Investment in emerging technologies	1	4.3.4 SDG 7: Affordable and Clean Energy	83
1.3.4 Computer software spending	1		
2.2.5 Annual investment in telecommunication services	1		
3.1.2 Cybersecurity	1		
3.2.4 E-commerce legislation	1		
3.3.1 E-Participation	1		
4.1.5 Prevalence of gig economy	1		
1.2.5 AI scientific publications	2		
1.3.1 Adoption of emerging technologies	2		
3.1.1 Secure Internet servers	2		
2.1.1 Active mobile broadband subscriptions	3		
3.2.3 Legal framework's adaptability to emerging technologies	3		

United States

	Rank (out of 130)	Score
Network Readiness Index	**4**	**81.09**

Pillar/sub-pillar	Rank	Score
A. Technology pillar	**1**	**87.81**
1st sub-pillar: Access	2	93.26
2nd sub-pillar: Content	4	79.55
3rd sub-pillar: Future Technologies	1	90.60
B. People pillar	**5**	**75.65**
1st sub-pillar: Individuals	13	76.33
2nd sub-pillar: Businesses	9	72.37
3rd sub-pillar: Governments	9	78.25
C. Governance pillar	**7**	**87.26**
1st sub-pillar: Trust	4	92.35
2nd sub-pillar: Regulation	19	83.78
3rd sub-pillar: Inclusion	4	85.67
D. Impact pillar	**16**	**73.64**
1st sub-pillar: Economy	9	67.10
2nd sub-pillar: Quality of Life	45	73.00
3rd sub-pillar: SDG Contribution	15	80.83



Network Readiness Index in detail

Indicator	Rank	Score	
A. Technology pillar	1	87.81	
1st sub-pillar: Access	2	93.26	
1.1.1 Mobile tariffs	21	79.59	
1.1.2 Handset prices	1	100.00	●
1.1.3 Households with internet access	39	86.75	
1.1.4 SMS sent by population 15-69	1	100.00	●
1.1.5 Population covered by at least a 3G mobile network	24	99.97	
1.1.6 International Internet bandwidth	NA	NA	
1.1.7 Internet access in schools	NA	NA	
2nd sub-pillar: Content	4	79.55	
1.2.1 GitHub commits	10	64.94	
1.2.2 Wikipedia edits	39	72.19	
1.2.3 Internet domain registrations	*	*	
1.2.4 Mobile apps development	1	100.00	●
1.2.5 AI scientific publications	2	92.41	●
3rd sub-pillar: Future Technologies	1	90.60	
1.3.1 Adoption of emerging technologies	2	99.75	●
1.3.2 Investment in emerging technologies	1	100.00	●
1.3.3 Robot density	8	62.65	
1.3.4 Computer software spending	1	100.00	●
B. People pillar	5	75.65	
1st sub-pillar: Individuals	13	76.33	
2.1.1 Active mobile broadband subscriptions	3	95.16	●
2.1.2 ICT skills	NA	NA	
2.1.3 Use of virtual social networks	52	72.25	
2.1.4 Tertiary enrollment	11	61.59	
2.1.5 Adult literacy rate	NA	NA	
2nd sub-pillar: Businesses	9	72.37	
2.2.1 Firms with website	32	73.31	
2.2.2 GERD financed by business enterprise	10	78.07	
2.2.3 Professionals	17	56.06	
2.2.4 Technicians and associate professionals	11	75.16	
2.2.5 Annual investment in telecommunication services	1	100.00	●
2.2.6 GERD performed by business enterprise	5	51.60	
3rd sub-pillar: Governments	9	78.25	
2.3.1 Government online services	7	94.55	
2.3.2 Publication and use of open data	4	81.57	
2.3.3 Government promotion of investment in emerging tech	7	78.84	
2.3.4 R&D expenditure by governments and higher education	21	58.04	

Indicator	Rank	Score	
C. Governance pillar	7	87.26	
1st sub-pillar: Trust	4	92.35	
3.1.1 Secure Internet servers	2	94.65	●
3.1.2 Cybersecurity	1	100.00	●
3.1.3 Online access to financial account	7	84.40	
3.1.4 Internet shopping	7	90.33	
2nd sub-pillar: Regulation	19	83.78	
3.2.1 Regulatory quality	20	77.77	
3.2.2 ICT regulatory environment	32	90.00	
3.2.3 Legal framework's adaptability to emerging technologies	3	88.10	●
3.2.4 E-commerce legislation	1	100.00	●
3.2.5 Privacy protection by law content	76	63.02	○
3rd sub-pillar: Inclusion	4	85.67	
3.3.1 E-Participation	1	100.00	●
3.3.2 Socioeconomic gap in use of digital payments	39	75.24	
3.3.3 Availability of local online content	6	93.52	
3.3.4 Gender gap in Internet use	NA	NA	
3.3.5 Rural gap in use of digital payments	40	73.90	
D. Impact pillar	16	73.64	
1st sub-pillar: Economy	9	67.10	
4.1.1 High-tech and medium-high-tech manufacturing	19	57.53	
4.1.2 High-tech exports	17	61.78	
4.1.3 PCT patent applications	12	82.27	
4.1.4 Growth rate of GDP per person engaged	28	68.75	
4.1.5 Prevalence of gig economy	1	100.00	●
4.1.6 ICT services exports	55	32.30	
2nd sub-pillar: Quality of Life	45	73.00	
4.2.1 Happiness	15	81.79	
4.2.2 Freedom to make life choices	52	80.66	
4.2.3 Income inequality	81	56.25	○
4.2.4 Healthy life expectancy at birth	65	73.28	○
3rd sub-pillar: SDG Contribution	15	80.83	
4.3.1 SDG 3: Good Health and Well-Being	10	91.80	
4.3.2 SDG 4: Quality Education	24	65.82	
4.3.3 Females employed with advanced degrees	4	92.80	
4.3.4 SDG 7: Affordable and Clean Energy	83	70.69	○
4.3.5 SDG 11: Sustainable Cities and Communities	59	83.02	

NOTE: * Indicates confidential data; ● a strength and ○ a weakness.

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