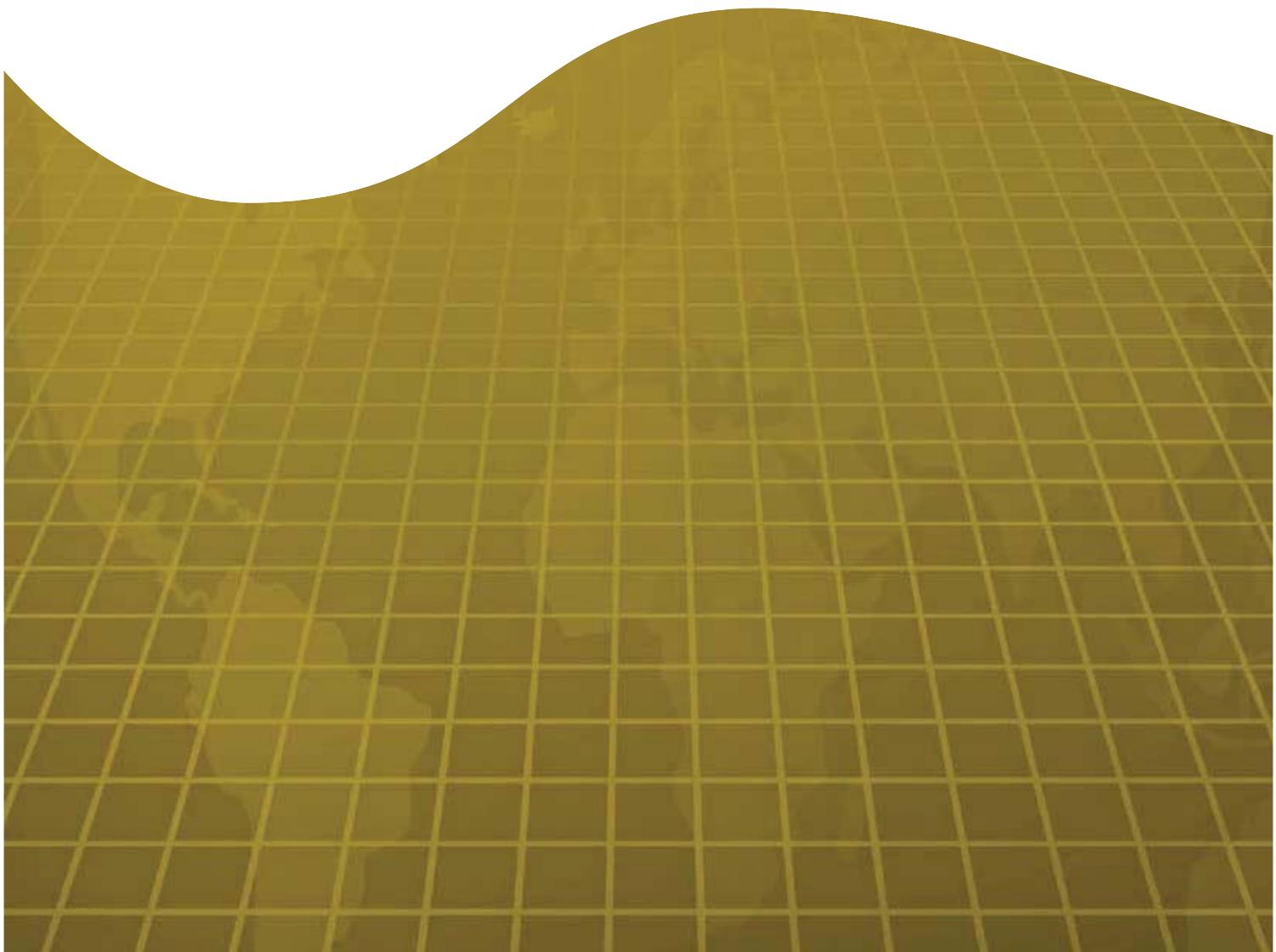


ANNEXES



Annexes

Survey Methodology

A.1. E-Government Development Index (EGDI): An Overview

Mathematically, the E-Government Development Index (EGDI) is a weighted average of normalised scores on the three most important dimensions of e-government, namely: scope and quality of online services (Online Service Index, OSI), status of the development of telecommunication infrastructure (Telecommunication Infrastructure Index, TII) and inherent human capital (Human Capital Index, HCI). Each of these sets of indices is in itself a composite measure that can be extracted and analysed independently (See Figure A.1).

$$\text{EGDI} = \frac{1}{3} (\text{OSI}_{\text{normalized}} + \text{TII}_{\text{normalized}} + \text{HCI}_{\text{normalized}})$$

Prior to the normalization of the three component indicators, the Z-score standardization procedure is implemented for each component indicator to ensure that the overall EGDI is equally decided by the three component indexes, (i.e., each component index presents comparable variance subsequent to the Z-score standardization.) In the absence of the Z-score standardization treatment, the EGDI would mainly depend on the component index with the greatest dispersion. After the Z-score standardization, the arithmetic average sum becomes a good statistical indicator, where “equal weights” truly means “equal importance.”

For standard Z-score calculation of each component indicator:

$$x_{\text{new}} = \frac{(x - \mu)}{\sigma}$$

Where:

x is a raw score to be standardized;

σ

μ is the mean of the population;

is the standard deviation of the population.

The composite value of each component index is then normalised to fall between the range of 0 to 1 and the overall EGDI is derived by taking the arithmetic average of the three component indexes.

As indicated, the EGDI is used as a benchmark to provide a numerical ranking of e-government development across United Nations Member States. While the methodological framework for EGDI has remained consistent across the Survey editions, each edition of the Survey has been adjusted to reflect emerging trends of e-government strategies, evolving knowledge of best practices in e-government, changes in technology and other factors. In addition, data collection practices have been periodically refined.

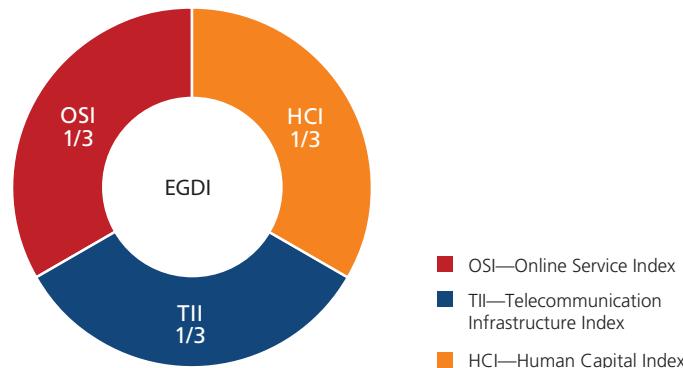


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Figure A.1. The three components of the E-Government Development Index (EGDI)



A.2. Telecommunication Infrastructure Index (TII)

The Telecommunication Infrastructure Index (TII) is an arithmetic average composite of five indicators: (i) estimated internet users per 100 inhabitants; (ii) number of main fixed telephone lines per 100 inhabitants; (iii) number of mobile subscribers per 100 inhabitants; (iv) number of wireless broadband subscriptions per 100 inhabitants; and (v) number of fixed broadband subscriptions per 100 inhabitants. The International Telecommunication Union is the primary source of data in each case. (See Figure A.2)

The definitions of the five components of TII¹ are:

1. Internet users (per 100 inhabitants) refer to individuals who used the Internet from any location in the last three months.²
2. Main fixed telephone lines (per 100 inhabitants) refers to telephone lines connecting a customer's terminal equipment (e.g., telephone set, facsimile machine) to the public switched telephone network (PSTN), which has a dedicated port on a telephone exchange. This term is synonymous with the terms main station or Direct Exchange Line (DEL), which are commonly used in telecommunication documents. It may not be the same as an access line or a subscription.
3. Mobile subscribers (per 100 inhabitants) are the number of subscriptions to mobile service in the last three months. A mobile (cellular) telephone refers to a portable telephone subscribed to a public mobile telephone service using cellular technology, which provides access to the PSTN. This includes analogue and digital cellular systems and technologies such as IMT-2000 (3G) and IMT-Advanced. Users of both post-paid subscriptions and prepaid accounts are included.

1 ITU - http://www.itu.int/dms_pub/itu-d/opb/ind/D-IND-ITCMEAS-2014-PDF-E.pdf

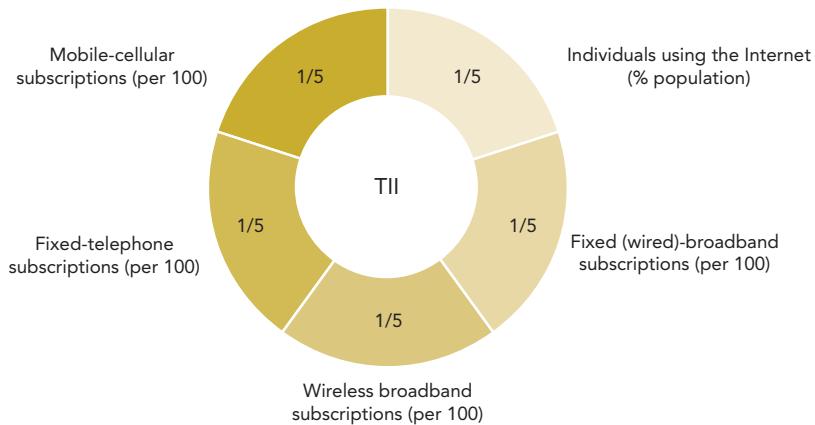
2 Note: The Internet is a worldwide public computer network. It provides access to a number of communication services including the World Wide Web and carries e-mail, news, entertainment and data files, irrespective of the device used (not assumed to be only via a computer – it may also be by mobile telephone, tablet, PDA, games machine, digital TV etc.). Access can be via a fixed or mobile network. (*Ibid*)

3 https://www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2014/MIS2014_without_Annex_4.pdf p.223

Note: Satellite broadband subscriptions refers to the number of satellite Internet subscriptions with an advertised download speed of at least 256 kbit/s. It refers to the retail subscription technology and not the backbone technology. Terrestrial fixed wireless broadband subscriptions refers to the number of terrestrial fixed wireless Internet subscriptions with an advertised download speed of at least 256 kbit/s. This includes fixed WiMAX and fixed wireless subscriptions, but excludes occasional users at hotspots and Wi-Fi hotspot subscribers. It also excludes mobile broadband subscriptions where users can access a service throughout the country wherever coverage is available. Active mobile-broadband subscriptions refers to the sum of standard mobile broadband subscriptions and dedicated mobile-broadband data subscriptions to the public Internet. It covers actual subscribers, not potential subscribers, even though the latter may have broadband-enabled handsets.

4. Wireless-broadband subscriptions refers to the sum of satellite broadband, terrestrial fixed wireless broadband and active mobile-broadband subscriptions to the public Internet.³
5. Fixed broadband subscriptions (per 100 inhabitants) refers to fixed subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or greater than, 256 kbit/s. This includes cable modem, DSL, fibre-to-the-home/building, other fixed (wired)-broadband subscriptions, satellite broadband and terrestrial fixed wireless broadband. This total is measured irrespective of the method of payment.

Figure A.2. Telecommunication Infrastructure Index (TII) and its components



It excludes subscriptions that have access to data communications (including the Internet) via mobile-cellular networks. It should include fixed WiMAX and any other fixed wireless technologies. It includes both residential subscriptions and subscriptions for organizations.

The TII has remained largely unchanged since 2002, except for the replacement of online population with fixed-broadband subscription and the removal of number of television sets in 2008; the replacement of personal computer (PC) users with fixed Internet subscriptions in 2012; and the replacement of fixed Internet subscriptions with wireless broadband subscriptions in 2014 (See Table A.1).

Each of these indicators was standardised via the Z-score procedure to derive the Z-score for each component indicator. The telecommunication infrastructure composite value for country "x" is the simple arithmetic mean of the five standardised indicators derived this way:

Telecommunication infrastructure composite value=

Average (Internet user Z-score

+ Telephone line Z-score

+ Mobile subscription Z-score

Table A.1. Telecommunication infrastructure index (TII) and changes of its components (2003-2016)

TII (2001)	TII (2003)	TII (2004)	TII (2005)	TII (2008)	TII (2010)	TII (2012)	TII (2014)	TII (2016)
Internet users	Internet users							
Online population	Online population	Online population	Online population	Fixed-broadband subscriptions	Fixed-broadband subscriptions	Fixed-broadband subscriptions	Fixed-broadband subscriptions	Fixed-broadband subscriptions
Personal computer (PC) users	Fixed Internet subscriptions	Wireless broadband subscriptions	Wireless broadband subscriptions					
Fixed-telephone subscriptions	Fixed-telephone subscriptions							
Mobile-cellular subscriptions	Mobile-cellular subscriptions							
Television sets	Television sets	Television sets	Television sets	-	-	-	-	-

+ Wireless broadband subscription Z-score

+ Fixed broadband Z-score)

Finally, the TII composite value is normalized by taking its value for a given country, subtracting

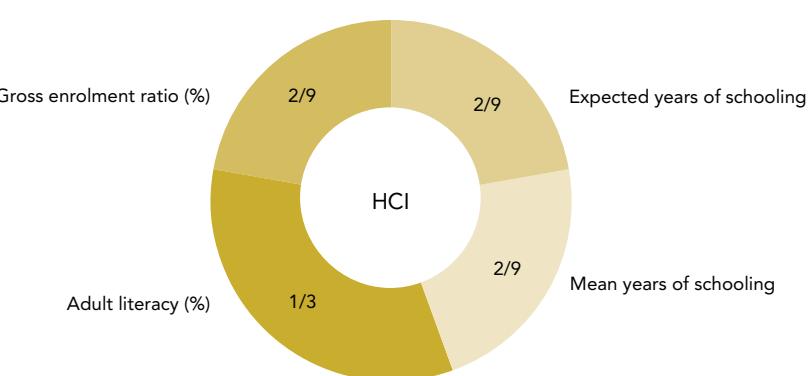
$$\text{TII (Country "x")} = \frac{[1.3813 - (-1.1358)]}{[2.3640 - (-1.1358)]} = 0.7192$$

the lowest composite value in the Survey and dividing by the range of composite values for all countries. For example, if country "x" has the composite value of 1.3813, and the lowest composite value for all countries is -1.1358 and the highest is 2.3640, then the normalized value of TII for country "x" would be:

A.3. Human Capital Index (HCI)

The Human Capital Index (HCI) consists of four components, namely: (i) adult literacy rate; (ii) the combined primary, secondary and tertiary gross enrolment ratio; (iii) expected years of schooling; and (iv) average years of schooling. (See Figure A.3)

Figure A.3. Human Capital Index (HCI) and its components



The definitions of the four indicators of HCI are:

1. Adult literacy is measured as the percentage of people aged 15 years and above who can, with understanding, both read and write a short simple statement on their everyday life.
2. Gross enrolment ratio is measured as the combined primary, secondary and tertiary gross enrolment ratio, of the total number of students enrolled at the primary, secondary and tertiary level, regardless of age, as a percentage of the population of school age for that level.
3. Expected years of schooling is the total number of years of schooling that a child of a certain age can expect to receive in the future, assuming that the probability of his or her being in school at any particular age is equal to the current enrolment ratio age .
4. Mean years of schooling (MYS) provides the average number of years of education completed by a country's adult population (25 years and older), excluding the years spent repeating grades (add reference 6).

The first two components, i.e. adult literacy rate and the combined primary, secondary and tertiary gross enrolment ratio have been used for the past Surveys since 2002. Recognizing that education is the fundamental pillar in supporting human capital, the 2014 Survey introduced two new components to the human capital index (HCI), namely (i) expected years of schooling; and (ii) mean years of schooling. The preliminary statistical study commissioned by DESA/DPADM validated the use of the new HCI, accentuating that the two new components has strengthened the HCI and it does not introduce any error (UNDESA, 2014) (See Table A.2).

Table A.2. Human Capital Index and changes of its components (2003–2014)

Components of HCI in past Surveys (2002, 2003, 2004, 2005, 2008, 2010, 2012)	Components of HCI in 2014 Survey
Adult literacy	Adult literacy
Gross enrolment ratio	Gross enrolment ratio
-	Expected years of schooling
-	Mean years of schooling

The HCI is a weighted average composite of the four indicators. Similar to calculating the TII, each of the four component indicators is first standardized via the Z-score procedure to derive the Z-score value for each component indicator. The human capital composite value for country "x" is the weighted arithmetic mean with one-third weight assigned to adult literacy rate and two-ninth weight assigned to the gross enrolment ratio, estimated years of schooling and mean years of schooling derived this way:

Human capital composite value =

1/3 × Adult literacy rate Z-score +

2/9 × Gross enrolment ratio Z-score +

2/9 × Estimated years of schooling Z-score +

2/9 × Mean years of schooling Z-score

Then, the human capital composite value is normalized by taking its composite value for a given country, subtracting the lowest composite value in the Survey and dividing by the range of composite values for all countries. For example, if country “x” has the composite value at 0.8438, and the lowest composite value for all countries is –3.2354 and the highest equal to 1.2752, then the normalized value of the Human Capital Index for country “x” would be:

$$\text{Human Capital Index (Country "x")} = \frac{[0.8438 - (-3.2354)]}{[1.2752 - (-3.2354)]} = 0.9044$$

A.4. Online Service Index (OSI)

To arrive at a set of Online Service Index (OSI) values for 2016, a total of 111 researchers, including UN experts and online United Nations Volunteers (UNVs) from over 60 countries with coverage of 66 languages assessed each country’s national website in the native language, including the national portal, e-services portal and e-participation portal, as well as the websites of the related ministries of education, labour, social services, health, finance and environment as applicable. The UNVs included qualified graduate students and volunteers from universities in the field of public administration.

To ensure consistency of assessments, all the researchers were provided with a rigorous training by e-government and online service delivery experts with years of experience in conducting the assessments, and were guided by Data Team Coordinators who provided support and guidance throughout the assessment period. Researchers were instructed and trained to assume the mind-set of an average citizen user in assessing sites. Thus, responses were generally based on whether the relevant features could be found and accessed easily, not whether they in fact exist although hidden somewhere on the sites. The key point is that the average user needs to find information and features quickly and intuitively for a site to be “usable” with content readily discoverable by the intended beneficiaries.

The data collection and Survey research ran from May 2015 until the end of July 2015. Each country was assessed by at least two researchers who conducted the Survey in the country’s national language. After the initial assessment, the evaluations by the two researchers on each country were compared and questions with discrepancies were reviewed again by the researchers. The third phase, from July to August, was the final review by the Data Team Coordinators who analyzed all the answers and, where needed, carried out further review and verification processes using multiple methods and sources. The scores were then sent for approval by a senior researcher. Through this multilevel approach, all surveyed sites were thoroughly assessed by at least three people, one of whom has years of experience in assessing public sector online services, and reviewed by one of the Data Team Coordinators.

Once the evaluation phase was completed, the statistics team produced the first draft of the OSI ranking. The data was extracted from the platform and the raw OSI scores were created. Rankings were compared with previous OSI scores, and any discrepancies were reviewed thoroughly.

Each question calls for a binary response. Every positive answer generates a new “more in depth question” inside and across the patterns. The outcome is an enhanced quantitative Survey with a wider range of point distributions reflecting differences in levels of e-government development among countries.

The total number of points scored by each country is normalised to the range of 0 to 1. The online index value for a given country is equal to the actual total score less the lowest total score divided by the range of total score values for all countries. For example, if country “x” has a score of 114, and the lowest score of any country is 0 and the highest equal to 153, then the online services value for country “x” would be:

$$\text{Online Service Index (Country "x")} = \frac{(114-0)}{(153-0)} = 0.7451$$

A.5. Challenges in reviewing a country's online presence

Selecting the appropriate site/URL at the national level

As done for each edition of the Survey, the United Nations Member States were requested to provide information regarding their website addresses (URL) for different government ministries and the national portal(s). Information was also requested with regards to open government data, e-participation and the designated authority in charge of e-government policies. Sixty-two (62) Member States returned this information and all appropriate sites were then utilised during the verification process.

One of the essential decisions for researchers when undertaking this Survey is to identify the specific site(s) to review as the national government site for each country. Regardless of the sophistication of e-government in a specific country, the priority for users is to find a clear indication as to which of the many potentially available government sites could be deemed as the “official” national government site – in a sense, the gateway or starting point for national users. Not only is this fairly easy to do – a simple, clear statement at the chosen website is sufficient to start—but it is also an important step towards providing government information and services to the public in an integrated, usable and easy-to-find manner. Many countries have in fact engaged in the procedure of actually noting on their national site that it is their “official” Government site, or “Gateway to Government,” or other such statement.

Yet not all countries provided the appropriate URLs. Thus, some discretion is exerted when deciding whether to use only the country-provided websites. What is noteworthy in this Survey is that the researchers not only reviewed the national portals but also undertook exhaustive research on e-participation and open government data where applicable.

One dilemma facing researchers is that a number of countries provide more than one apparently legitimate national access point. While some have simply not yet consolidated their government entry points into a single site or portal that could be clearly distinguished, others have actually taken this approach on purpose – offering different access points to different audiences. Considering that the use of integrated portals or multi-portals is emerging as a trend in e-government strategies worldwide, researchers would select the integrated website as a National Portal or other portal if it was deemed to be the official homepage of the government. However, more than one site could be scored if the sites were clearly part of a tightly integrated “network” of national sites. It should be noted that for those countries for which more than one site was assessed, having more than one national entry is neither a disadvantage nor a benefit.

Some countries do not offer certain public services at the federal level, but rather at the sub-national or local level. No country is penalised for offering a service at the sub-national level as opposed to the federal level per se. In fact, when the issue arises researchers tend to be inclusive in assessing the matter as long as the information and/or service can be found from the national level.

A more difficult problem arises when not only a specific service is located at the local level but when the entire ministerial functions are altogether missing at the national level. If researchers are unable to locate a ministry as per the above described method, then the next step is to find out whether the country in question actually has such a ministry at the national level or whether the functions might be locally administered.

Integrated Portal and Multi-Portal Approaches

Some countries have adopted a different approach to their online e-government portal, through utilizing multiple websites for different topics. Hence, instead of centralizing all the e-information, e-services, e-participation, open data and other online features in one portal, they have been made available on separate websites for a more audience-targeted approach. Researchers made sure to examine all possible websites when making the assessment, through links or search engines, to cover all government websites where relative information can be found.

Even though the norm has been to follow a one-stop-shop type of service delivery and an integrated portal approach, countries who have used a decentralised approach have not been penalised in their score, and the assessment was conducted as though for an integrated approach.

For example, Finland has a website www.valtioneuvosto.fi, which is the information portal of the Finnish Government, whereas the website www.suomi.fi is the e-service and public service information portal and also has open government data. Information on e-participation is centralised on the websites www.kansalaisaloite.fi and www.otakantaa.fi. This approach of having several websites for different purposes (information, services, participation and open government data) is typical of several European countries.

Accessing in national official languages

The research team was fully equipped to handle the six official languages of the United Nations, namely Arabic, Chinese, English, French, Russian and Spanish. However, as in previous Survey cycles, the team went beyond this mandate and made an effort to review each website in the official language of the country, or where that was not possible, in another of the languages available on the site. Translators provided assistance as necessary so that possible errors based on language have been reduced to a minimum.

Data quality checks

In order to ensure data quality, UNDESA has put Survey procedures under close monitoring including by developing a web-based application platform for data collection and storage, preparing the methodological and training guidelines for researchers, and instituting a training programme for either group training or individual hands-on support for researchers to resolve thorny issues.

Among other tasks, team members were asked to justify the selection of URLs and indicate whether the URLs had been reviewed in past Surveys. Regular discussions were held to discuss concerns and ensure consistency of evaluation methods.

UNDESA applied the Survey scores to generate an ordering of online service presence of all United Nations Member States and compared them with the historical results in previous Surveys so as to detect possible shortcomings in the process. The new scores are then compared to scores from the previous Surveys by removing the new questions and only considering the ones that remain unchanged. The team was assisted in the research by United Nations interns and volunteers with language skills not otherwise covered by the core group.

Towards a more citizen-centric approach

In line with the global trend towards a more citizen-centric approach and the demand for greater efficiency and cost-effectiveness of the public sector, the Survey questionnaire has been designed to reflect this paradigm of e-government. As mentioned above, user take-up has been included as one special subject in the Survey, which encourages governments to take account not only

of the supply side but also the demand side of e-services. Accordingly, the research team was instructed to enforce this approach consistently throughout the whole Survey. If features could not be found easily, quickly and intuitively, then a site would score poorly.

A.6. E-Participation Index (EPI)

The e-participation index (EPI) is derived as a supplementary index to the UN E-Government Survey. It extends the dimension of the Survey by focusing on the use of online services to facilitate provision of information by governments to citizens ("e-information sharing"), interaction with stakeholders ("e-consultation") and engagement in decision-making processes ("e-decision-making;" See Box A.1)

A.1. E-Participation Framework

- E-information: Enabling participation by providing citizens with public information and access to information without or upon demand
- E-consultation: Engaging citizens in contributions to and deliberation on public policies and services
- E-decision-making: Empowering citizens through co-design of policy options and co-production of service components and delivery modalities.

A country's EPI reflects its e-participation mechanisms that are deployed by the government as compared to all other countries. The purpose of this measure is not to prescribe any particular practice, but rather to offer insight into how different countries are using online tools to promote interaction between citizen and government, as well as among citizens, for the benefit of all. As the EPI is a qualitative assessment based on the availability and relevance of participatory services available on government websites, the comparative ranking of countries is for illustrative purposes and should serve only as an indicator of the broad trends in promoting citizen engagement. As with the EGDI, the EPI is not intended as an absolute measurement of e-participation, but rather, it attempts to capture the e-participation performance of countries relative to one another at a particular point in time.

In the 2016 Survey, the e-participation questions were carefully reviewed and expanded to reflect current trends and modalities in how governments engage their citizens in public policy-making, implementation and evaluation. New questions were added to address data publishing and sharing by government agencies. Other updates included: the availability of information on the citizens' rights to access government information; feedback from citizens concerning the improvement of online public services; and tools about public opinion regarding policy deliberation through social media, online polls and online discussion forums. While the EPI provides a useful qualitative analytical tool when comparing the data and ranking of countries for one particular year, caution must be taken in comparing e-participation rankings with past editions of the Survey.

Mathematically, the EPI is normalised by taking the total score value for a given country subtracting the lowest total score for any country in the Survey and dividing by the range of total score values for all countries. For example, if country "x" has an e-participation score of 29, and the lowest value of any country is 0 and the highest equal to 38, then the normalised index value for country "x" would be:

$$\text{E-Participation Index (Country "x")} = \frac{(29-0)}{(38-0)} = 0.7632$$

The e-participation ranking of countries is determined by the value of EPI through the “standard competition ranking”. In standard competition ranking, countries with the same EPI receive the same ranking number and a gap is left in the ranking numbers. This ranking strategy is adopted in view that if two or more countries tie for a position in the ranking, the positions of all those ranked below them are unaffected. For example, if country A ranks ahead of B and C, both of which share the same EPI value and scores ahead of D, then A is ranked first (1st), B and C are ranked second (2nd) and D is ranked fourth (4th). In 2012, the “modified competition ranking” was used and for comparison reasons, all ranks were adjusted in 2014 and 2016 using the standard competition ranking.

A.7. Country Classifications and Nomenclature in the Survey

Regional groupings are taken from the classification of the United Nations Statistics Division. For details, see <http://unstats.un.org/unsd/methods/m49/m49regin.htm>.

Economies are divided according to 2015 GNI per capita, calculated using the World Bank Atlas method. The groups are: low income, USD \$1,045 or less; lower middle income, USD \$1,046 - \$4,125; upper middle income, USD \$4,126 - \$12,735; and high income, US \$12,736 or more. (Accessed on 14 December 2015). Wherever data and statistics are reported by income groups, the report classifies countries according to the World Bank income classification of high, middle and low income groups.

For details, see <http://data.worldbank.org/about/country-classifications>.

The lists of least developing countries, landlocked developing countries and small island developing countries were obtained from the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLS).

For details, see <http://www.unohrlls.org/en/ldc/25/>

A.8. United Nations e-government knowledge base

The Division for Public Administration and Development Management of the United Nations Department of Economic and Social Affairs is maintaining the United Nations e-government knowledge base (egovkb) to provide governments and all stakeholders with easy access to data and information on e-government development.

The egovkb is an interactive online tool to view, sort and download information and datasets in open data formats from the 2016 UN E-Government Survey and previous editions (2003, 2004, 2005, 2008, 2010, 2012 and 2014). The egovkb also includes advanced research features such as customisable regional and country comparisons, rankings and country profiles.

For more information and details, see the United Nations e-Government Knowledge Base at <https://publicadministration.un.org/egovkb/>

A.9. Evolving definitions and understandings of e-Government and its related development

Sources	Definition
2001 Benchmarking E-government: A Global Perspective (UNDESA, 2001)	E-government is 'a tool for information and service provision to citizens'
2003 World Public Sector Report: E-Government at the Crossroads (UNDESA, 2003)	E-government is what enhances the capacity of public administration through the use of ICTs to increase the supply of public value (i.e., to deliver the things that people want).
United Nations Global E-Government Readiness Report 2004: Towards Access for Opportunity (UNDESA, 2004)	E-government is what enhances the capacity of public administration through the use of ICTs to increase the supply of public value (i.e., to deliver the things that people want).
United Nations Global E-Government Readiness Report 2005: From E-Government to E-Inclusion (UNDESA, 2005)	The definition of e-government needs to be enhanced from simply 'government-to-government networking' or 'use of ICTs by governments to provide information and services to the public' to one which encompasses the role of the government in promoting equality and social inclusion.
United Nations E-Government Survey 2008: From E-Government to Connected Governance (UNDESA, 2008)	E-government is the continuous innovation in the delivery of services, public participation and governance through the transformation of external and internal relationships by the use of information technology, especially the Internet.
UN E-Government Survey 2014: E-Government for the Future We Want (UNDESA, 2014)	E-government can be referred to as the use and application of information technologies in public administration to streamline and integrate workflows and processes, to effectively manage data and information, enhance public service delivery, as well as expand communication channels for engagement and empowerment of people.
Organisation for Economic Co-operation and Development (OECD)	E-government is defined as 'the use of information and communications technologies (ICTs), and particularly the Internet, to achieve better government'.
World Bank (WB, 2015)	E-government refers to government agencies' use of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth and/or cost reductions.

A.10. Matrix of assessment parameters used in the UN E-Government Surveys in relation to relevant Sustainable Development Goals (SDGs) and Targets

Sustainable Development Goals (SDGs)	Targets	Relevant assessment parameters used in the UN E-Government Surveys (2003-2016)
Goal 1: No Poverty	<p>1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable.</p> <p>1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.</p>	The Survey evaluates online information and service provision in national, ministry and/or sectoral portal(s) in the six sectors, namely health, education, social, labour, finance and environment.
Goal 3: Good Health and Well-Being	3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.	The Survey evaluates e-health or online services related to health in national, ministry and/or sectoral portal(s).
Goal 4: Quality Education	<p>4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.</p> <p>4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.</p>	Human capital is a requisite and one of the three main components of the E-Government Development Index (EGDI); the four sub-components (indicators) of the Human Capital Index in EGDI are (i) adult literacy; (ii) gross enrolment ratio; (iii) expected years of schooling and (iv) mean years of schooling. The source of human capital data is derived from UNESCO.
Goal 5: Gender Equality	<p>5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women</p> <p>5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.</p>	<p>The Survey evaluates online services for women and girls in national, ministry and/or sectoral portal(s).</p> <p>The Survey evaluates if national, ministry and/or sectoral portal(s) offer specific online services to people living in poverty, older persons, the illiterate, persons with disabilities, immigrants, women and youth.</p>
Goal 8: Decent Work and Economic Growth	<p>8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.</p> <p>8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.</p>	<p>The Survey evaluates online information and services offered by ministries or government agencies responsible for labour and employment, or the labour sector in general.</p> <p>The Survey evaluates if national, ministry and/or sectoral portal(s) offer specific online services to immigrants.</p>
Goal 9: Industry, Innovation and Infrastructure	<p>9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all</p> <p>9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020.</p>	Telecommunication infrastructure is a requisite and one of the three main components of the E-Government Development Index (EGDI); the five sub-components (indicators) of the Telecommunication Infrastructure Index in EGDI are: (i) Internet users; (ii) fixed-telephone subscriptions; (iii) mobile-cellular subscriptions; (iv) fixed-broadband subscriptions; (v) wireless broadband subscriptions. The source of human capital data is derived from ITU.

Sustainable Development Goals (SDGs)	Targets	Relevant assessment parameters used in the UN E-Government Surveys (2003-2016)
Goal 10: Reduced inequalities	10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.	The Survey evaluates if national, ministry and/or sectoral portal(s) offer specific online services to people living in poverty, older persons, the illiterate, persons with disabilities, immigrants, women and youth.
Goal 11: Sustainable cities and communities	11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.	The Survey evaluates online information and service provision in the six sectors, namely health, education, social, labour, finance and environment.
	11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.	The Survey evaluates e-participation, i.e., use of online services to engage citizens and non-citizens including through provision of online information (e-information), interaction with stakeholders (e-consultation) and engagement in decision-making processes (e-decision making) ⁴
Goal 12: Responsible consumption and production	12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.	The Survey evaluates the provision of online information, including open government data, in the six sectors in national portals or open data portals, namely in health, education, social, labour, finance and environment. ⁵
Goal 13: Climate Action	13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.	The Survey evaluates the provision of online information, including open government data, related to environmental protection or climate change.
Goal 16: Peace, Justice and Strong Institutions	16.5 Substantially reduce corruption and bribery in all their forms.	The Survey measures online public services available to people in various sectors and the availability of public e-procurement services.
	16.6 Develop effective, accountable and transparent institutions at all levels.	The Survey measures online public services available to people provision in the six sectors, namely health, education, social, labour, finance and environment.
	16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels.	The Survey evaluates e-participation, i.e., use of online services to engage citizens and non-citizens including through provision of online information (e-information), interaction with stakeholders (e-consultation) and engagement in decision-making processes (e-decision making). ⁶

⁴ See Chapter 3 on e-participation

⁵ See Chapter 2 on open government data

⁶ See Chapter 3 on e-participation

Sustainable Development Goals (SDGs)	Targets	Relevant assessment parameters used in the UN E-Government Surveys (2003-2016)
	16.9 By 2030, provide legal identity for all, including birth registration.	The Survey evaluates if government portals provide digital identity and if birth certificates are available on request through national, ministry and/or sectoral portal(s). ⁷
	16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements.	The Survey evaluates the provision of online information including open government data, in the six sectors in government portals or open data portals.
	16.B Promote and enforce non-discriminatory laws and policies for sustainable development.	The Survey evaluates the provision of online information on laws and policies in the six sectors, namely in health, education, social, labour, finance and environment.
Goal 17: Partnerships for the Goals	17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.	The Survey evaluates the existence of public-private partnership in offering e-government services in national, ministry and/or sectoral portals.

⁷ See Chapter 2 on open government data

Data tables

Table 1. Country Profiles

Rank	Country	Region	Sub-Region	EGDI 2016	OSI	TII	HCI	Level of Income	LDC	LLDC	SIDS
171	Afghanistan	Asia	Southern Asia	0.2313	0.3043	0.1066	0.2830	Low Income	x	x	x
82	Albania	Europe	Southern Europe	0.5331	0.5942	0.3530	0.6520	Upper Middle Income			
150	Algeria	Africa	Northern Africa	0.2999	0.0652	0.1934	0.6412	Upper Middle Income			
55	Andorra	Europe	Southern Europe	0.6302	0.5072	0.6855	0.6978	High Income			
142	Angola	Africa	Central Africa	0.3311	0.3478	0.1441	0.5015	Upper Middle Income	x		
100	Antigua and Barbuda	Americas	Caribbean	0.4892	0.1812	0.5412	0.7453	Lower Middle Income	x		
41	Argentina	Americas	South America	0.6978	0.7101	0.5031	0.8802	Upper Middle Income			
87	Armenia	Asia	Western Asia	0.5179	0.4275	0.3922	0.7338	Lower Middle Income	x		
2	Australia	Oceania	Oceania	0.9143	0.9783	0.7646	1.0000	High Income			
16	Austria	Europe	Western Europe	0.8208	0.9130	0.7098	0.8396	High Income			
56	Azerbaijan	Asia	Western Asia	0.6274	0.6812	0.4852	0.7158	Upper Middle Income	x		
93	Bahamas	Americas	Caribbean	0.5108	0.4275	0.3842	0.7207	High Income	x		
24	Bahrain	Asia	Western Asia	0.7734	0.8261	0.7762	0.7178	High Income	x		
124	Bangladesh	Asia	Southern Asia	0.3799	0.6232	0.1193	0.3973	Low Income	x		
54	Barbados	Americas	Caribbean	0.6310	0.4420	0.6397	0.8113	High Income	x		
49	Belarus	Europe	Eastern Europe	0.6625	0.4855	0.6304	0.8716	Upper Middle Income			
19	Belgium	Europe	Western Europe	0.7874	0.7101	0.6808	0.9712	High Income			
122	Belize	Americas	Central America	0.3825	0.3188	0.1834	0.6454	Upper Middle Income	x		
177	Benin	Africa	West Africa	0.2039	0.1449	0.1471	0.3196	Low Income	x		
133	Bhutan	Asia	Southern Asia	0.3506	0.3188	0.2192	0.5139	Lower Middle Income	x	x	
101	Bolivia	Americas	South America	0.4821	0.4928	0.2532	0.7004	Lower Middle Income	x		
92	Bosnia and Herzegovina	Europe	Southern Europe	0.5118	0.4493	0.4047	0.6815	Upper Middle Income			
113	Botswana	Africa	Southern Africa	0.4531	0.2826	0.4215	0.6553	Upper Middle Income	x		
51	Brazil	Americas	South America	0.6377	0.7319	0.5025	0.6787	Upper Middle Income			
83	Brunei Darussalam	Asia	South-Eastern Asia	0.5298	0.5072	0.3512	0.7310	High Income			
52	Bulgaria	Europe	Eastern Europe	0.6376	0.5652	0.5602	0.7875	Upper Middle Income			
185	Burkina Faso	Africa	West Africa	0.1598	0.1884	0.1232	0.1677	Low Income	x	x	

Table 1. Country Profiles (continued)

Rank	Country	Region	SubRegion	EGDI 2016	OSI	TII	HCI	Level of Income	LDC	LLDC	SIDS
173	Burundi	Africa	Eastern Africa	0.2277	0.1522	0.0331	0.4979	Low Income	x	x	
158	Cambodia	Asia	South-Eastern Asia	0.2593	0.0507	0.2486	0.4785	Low Income	x		
155	Cameroon	Africa	Central Africa	0.2759	0.2174	0.1310	0.4794	Lower Middle Income			
14	Canada	Americas	North America	0.8285	0.9565	0.6717	0.8572	High Income			
103	Cape Verde	Africa	West Africa	0.4742	0.4565	0.3629	0.6031	Lower Middle Income	x		
191	Central African Republic	Africa	Central Africa	0.0789	0.0000	0.0381	0.1985	Low Income	x	x	
188	Chad	Africa	Central Africa	0.1256	0.1377	0.0476	0.1917	Low Income	x	x	
42	Chile	Americas	South America	0.6949	0.7754	0.4970	0.8124	High Income			
63	China	Asia	Eastern Asia	0.6071	0.7681	0.3673	0.6860	Upper Middle Income			
57	Colombia	Americas	South America	0.6237	0.7899	0.3813	0.7000	Upper Middle Income			
176	Comoros	Africa	Eastern Africa	0.2155	0.0507	0.1073	0.4885	Low Income	x	x	
162	Congo	Africa	Central Africa	0.2497	0.0435	0.1713	0.5344	Low Income			
53	Costa Rica	Americas	Central America	0.6314	0.6377	0.5129	0.7436	Upper Middle Income			
175	Côte d'Ivoire	Africa	West Africa	0.2185	0.1884	0.1711	0.2959	Lower Middle Income			
37	Croatia	Europe	Southern Europe	0.7162	0.7464	0.5974	0.8050	High Income			
131	Cuba	Americas	Caribbean	0.3522	0.1957	0.1103	0.7507	Upper Middle Income	x		
64	Cyprus	Asia	Western Asia	0.6023	0.5362	0.4923	0.7782	High Income			
50	Czech Republic	Europe	Eastern Europe	0.6454	0.4783	0.5952	0.8627	High Income			
153	Democratic People's Republic of Korea	Asia	Eastern Asia	0.2801	0.0217	0.0363	0.7822	Low Income			
180	Democratic Republic of the Congo	Africa	Central Africa	0.1876	0.0870	0.0788	0.3970	Low Income	x		
9	Denmark	Europe	Northern Europe	0.8510	0.7754	0.8247	0.9530	High Income			
187	Djibouti	Africa	Eastern Africa	0.1337	0.0217	0.0698	0.3095	Lower Middle Income	x		
109	Dominica	Americas	Caribbean	0.4577	0.3043	0.4305	0.6384	Upper Middle Income			
98	Dominican Republic	Americas	Caribbean	0.4914	0.5072	0.2992	0.6676	Upper Middle Income	x		
74	Ecuador	Americas	South America	0.5625	0.6304	0.3438	0.7134	Upper Middle Income			
108	Egypt	Africa	Northern Africa	0.4594	0.4710	0.3025	0.6048	Lower Middle Income			
104	El Salvador	Americas	Central America	0.4718	0.4855	0.3265	0.6035	Lower Middle Income	x		
165	Equatorial Guinea	Africa	Central Africa	0.2403	0.0797	0.1237	0.5174	High Income	x		
190	Eritrea	Africa	Eastern Africa	0.0902	0.0217	0.0000	0.2487	Low Income	x		
13	Estonia	Europe	Northern Europe	0.8334	0.8913	0.7329	0.8761	High Income			

Table 1. Country Profiles (continued)

Rank	Country	Region	Sub-Region	EGDI 2016	OSI	TII	HCI	Level of Income	LDC	LLDC	SIDS
157	Ethiopia	Africa	Eastern Africa	0.2666	0.5290	0.0495	0.2212	Low Income	x	x	
96	Fiji	Oceania	Oceania	0.4989	0.4130	0.3326	0.7509	Upper Middle Income	x	x	
5	Finland	Europe	Northern Europe	0.8817	0.9420	0.7590	0.9440	High Income			
10	France	Europe	Western Europe	0.8456	0.9420	0.7502	0.8445	High Income			
129	Gabon	Africa	Central Africa	0.3584	0.1522	0.3068	0.6162	Upper Middle Income			
167	Gambia	Africa	West Africa	0.2396	0.1957	0.1959	0.3274	Low Income	x		
61	Georgia	Asia	Western Asia	0.6108	0.6377	0.4184	0.7763	Lower Middle Income			
15	Germany	Europe	Western Europe	0.8210	0.8406	0.7342	0.8882	High Income			
120	Ghana	Africa	West Africa	0.4181	0.4493	0.2594	0.5458	Lower Middle Income			
43	Greece	Europe	Southern Europe	0.6910	0.5797	0.6032	0.8901	High Income			
88	Grenada	Americas	Caribbean	0.5168	0.3696	0.3988	0.7820	Upper Middle Income	x		
102	Guatemala	Americas	Central America	0.4790	0.6667	0.2358	0.5345	Lower Middle Income			
189	Guinea	Africa	West Africa	0.1226	0.0870	0.0906	0.1903	Low Income	x		
181	Guinea-Bissau	Africa	West Africa	0.1818	0.1087	0.0828	0.3538	Low Income	x		
126	Guyana	Americas	South America	0.3651	0.2826	0.2432	0.5694	Lower Middle Income	x		
178	Haiti	Americas	Caribbean	0.1931	0.1667	0.1004	0.3124	Low Income	x		
127	Honduras	Americas	Central America	0.3611	0.3116	0.2008	0.5709	Lower Middle Income			
46	Hungary	Europe	Eastern Europe	0.6745	0.6304	0.5615	0.8317	Upper Middle Income			
27	Iceland	Europe	Northern Europe	0.7662	0.6232	0.7814	0.8940	High Income	x		
107	India	Asia	Southern Asia	0.4637	0.7464	0.1430	0.5019	Lower Middle Income			
116	Indonesia	Asia	South-Eastern Asia	0.4478	0.3623	0.3016	0.6796	Lower Middle Income			
106	Iran (Islamic Republic of)	Asia	Southern Asia	0.4649	0.3333	0.3514	0.7101	Upper Middle Income			
141	Iraq	Asia	Western Asia	0.3334	0.3551	0.1647	0.4803	Upper Middle Income			
26	Ireland	Europe	Northern Europe	0.7689	0.7246	0.6602	0.9218	High Income			
20	Israel	Asia	Western Asia	0.7806	0.8623	0.6175	0.8619	High Income			
22	Italy	Europe	Southern Europe	0.7764	0.8696	0.6469	0.8126	High Income			
112	Jamaica	Americas	Caribbean	0.4534	0.3551	0.3193	0.6859	Upper Middle Income	x		
11	Japan	Asia	Eastern Asia	0.8440	0.8768	0.8277	0.8274	High Income			
91	Jordan	Asia	Western Asia	0.5123	0.4565	0.3458	0.7344	Upper Middle Income			

Table 1. Country Profiles (continued)

Rank	Country	Region	Sub-Region	EGDI 2016	OSI	TII	HCI	Level of Income	LDC	LLDC	SIDS
33	Kazakhstan	Asia	Central Asia	0.7250	0.7681	0.5668	0.8401	Upper Middle Income	x		
119	Kenya	Africa	Eastern Africa	0.4186	0.5580	0.1808	0.5169	Low Income			
145	Kiribati	Oceania	Oceania	0.3122	0.2101	0.0665	0.6599	Lower Middle Income	x		x
40	Kuwait	Asia	Western Asia	0.7080	0.6522	0.7430	0.7287	High Income			
97	Kyrgyzstan	Asia	Central Asia	0.4969	0.4275	0.3123	0.7508	Upper Middle Income	x		
148	Lao People's Democratic Republic	Asia	South-Eastern Asia	0.3090	0.2826	0.1537	0.4907	Lower Middle Income	x	x	
45	Latvia	Europe	Northern Europe	0.6810	0.6087	0.5831	0.8512	High Income			
73	Lebanon	Asia	Western Asia	0.5646	0.5145	0.4911	0.6882	Upper Middle Income			
154	Lesotho	Africa	Southern Africa	0.2770	0.1377	0.1787	0.5147	Lower Middle Income	x	x	
170	Liberia	Africa	West Africa	0.2338	0.2391	0.1041	0.3581	Low Income	x		
118	Libya	Africa	Northern Africa	0.4322	0.1087	0.4291	0.7588	Upper Middle Income			
32	Liechtenstein	Europe	Western Europe	0.7313	0.6667	0.7293	0.7978	High Income			
23	Lithuania	Europe	Northern Europe	0.7747	0.8261	0.6262	0.8717	High Income			
25	Luxembourg	Europe	Western Europe	0.7705	0.7174	0.8190	0.7750	High Income			
163	Madagascar	Africa	Eastern Africa	0.2416	0.2246	0.0514	0.4488	Low Income	x		
166	Malawi	Africa	Eastern Africa	0.2398	0.2174	0.0485	0.4535	Low Income	x	x	
60	Malaysia	Asia	South-Eastern Asia	0.6175	0.7174	0.4397	0.6953	Upper Middle Income			
117	Maldives	Asia	Southern Asia	0.4330	0.2319	0.4370	0.6301	Upper Middle Income	x		
182	Mali	Africa	West Africa	0.1817	0.0942	0.2149	0.2358	Low Income	x	x	
30	Malta	Europe	Southern Europe	0.7424	0.7971	0.6992	0.7310	High Income			
156	Marshall Islands	Oceania	Oceania	0.2695	0.0290	0.0849	0.6947	Upper Middle Income	x		
184	Mauritania	Africa	West Africa	0.1734	0.0652	0.1536	0.3015	Lower Middle Income	x		
58	Mauritius	Africa	Eastern Africa	0.6231	0.7029	0.4596	0.7067	Upper Middle Income	x		
59	Mexico	Americas	Central America	0.6195	0.8478	0.3114	0.6993	Upper Middle Income			
146	Micronesia (Federated States of)	Oceania	Oceania	0.3103	0.1449	0.1197	0.6663	Lower Middle Income	x		
31	Monaco	Europe	Western Europe	0.7315	0.3188	1.0000	0.8757	High Income			
84	Mongolia	Asia	Eastern Asia	0.5194	0.5145	0.2841	0.7597	Lower Middle Income	x		
47	Montenegro	Europe	Southern Europe	0.6733	0.6812	0.5221	0.8165	Upper Middle Income			
85	Morocco	Africa	Northern Africa	0.5186	0.7391	0.3429	0.4737	Lower Middle Income			

Table 1. Country Profiles (continued)

Rank	Country	Region	Sub-Region	EGDI 2016	OSI	TII	HCI	Level of Income	LDC	LLDC	SIDS
172	Mozambique	Africa	Eastern Africa	0.2305	0.2029	0.0993	0.3893	Low Income	x		
169	Myanmar	Asia	South-Eastern Asia	0.2362	0.1594	0.0655	0.4837	Low Income	x		
125	Namibia	Africa	Southern Africa	0.3682	0.2826	0.2669	0.5551	Upper Middle Income			
152	Nauru	Oceania	Oceania	0.2868	0.0942	0.2448	0.5214	Upper Middle Income	x		
135	Nepal	Asia	Southern Asia	0.3458	0.3986	0.1675	0.4714	Low Income	x	x	
7	Netherlands	Europe	Western Europe	0.8659	0.9275	0.7517	0.9183	High Income			
8	New Zealand	Oceania	Oceania	0.8653	0.9420	0.7136	0.9402	High Income			
123	Nicaragua	Americas	Central America	0.3801	0.3841	0.2109	0.5454	Lower Middle Income			
192	Niger	Africa	West Africa	0.0593	0.0725	0.0557	0.0498	Low Income	x	x	
143	Nigeria	Africa	West Africa	0.3291	0.4130	0.1958	0.3784	Lower Middle Income			
18	Norway	Europe	Northern Europe	0.8117	0.8043	0.7276	0.9031	High Income			
66	Oman	Asia	Western Asia	0.5962	0.5942	0.5147	0.6796	High Income			
159	Pakistan	Asia	Southern Asia	0.2583	0.3261	0.1299	0.3190	Lower Middle Income			
111	Palau	Oceania	Oceania	0.4546	0.1087	0.3684	0.8867	Upper Middle Income	x		
99	Panama	Americas	Central America	0.4903	0.3333	0.4202	0.7175	Upper Middle Income			
179	Papua New Guinea	Oceania	Oceania	0.1882	0.1667	0.0739	0.3240	Lower Middle Income	x		
95	Paraguay	Americas	South America	0.4989	0.6014	0.2544	0.6409	Lower Middle Income	x		
81	Peru	Americas	South America	0.5381	0.6304	0.2689	0.7151	Upper Middle Income			
71	Philippines	Asia	South-Eastern Asia	0.5765	0.6667	0.3791	0.6839	Lower Middle Income			
36	Poland	Europe	Eastern Europe	0.7211	0.7029	0.5857	0.8747	High Income			
38	Portugal	Europe	Southern Europe	0.7144	0.7464	0.5838	0.8129	High Income			
48	Qatar	Asia	Western Asia	0.6699	0.6739	0.6041	0.7317	High Income			
3	Republic of Korea	Asia	Eastern Asia	0.8915	0.9420	0.8530	0.8795	High Income			
65	Republic of Moldova	Europe	Eastern Europe	0.5994	0.5942	0.4850	0.7191	Lower Middle Income	x		
75	Romania	Europe	Eastern Europe	0.5611	0.4565	0.4533	0.7736	Upper Middle Income			
35	Russian Federation	Europe	Eastern Europe	0.7215	0.7319	0.6091	0.8234	High Income			
138	Rwanda	Africa	Eastern Africa	0.3390	0.4565	0.1084	0.4522	Low Income	x	x	
94	Saint Kitts and Nevis	Americas	Caribbean	0.5034	0.2826	0.5301	0.6976	High Income	x		
114	Saint Lucia	Americas	Caribbean	0.4531	0.2754	0.4094	0.6744	Upper Middle Income	x		

Table 1. Country Profiles (continued)

Rank	Country	Region	Sub-Region	EGDI 2016	OSI	TII	HCI	Level of Income	LDC	LLDC	SIDS
115	Saint Vincent and the Grenadines	Americas	Caribbean	0.4494	0.2971	0.3756	0.6754	Upper Middle Income	x		
121	Samoa	Oceania	Oceania	0.4019	0.3406	0.1576	0.7076	Lower Middle Income	x	x	
78	San Marino	Europe	Southern Europe	0.5506	0.2391	0.6128	0.7999	High Income			
168	Sao Tome and Principe	Africa	Central Africa	0.2390	0.0435	0.1547	0.5188	Lower Middle Income	x	x	
44	Saudi Arabia	Asia	Western Asia	0.6822	0.6739	0.5733	0.7995	High Income			
144	Senegal	Africa	West Africa	0.3250	0.3768	0.1958	0.4025	Lower Middle Income	x		
39	Serbia	Europe	Southern Europe	0.7131	0.8188	0.5434	0.7769	Upper Middle Income			
86	Seychelles	Africa	Eastern Africa	0.5181	0.4058	0.4624	0.6861	Upper Middle Income	x		
186	Sierra Leone	Africa	West Africa	0.1594	0.1159	0.1216	0.2407	Low Income	x		
4	Singapore	Asia	South-Eastern Asia	0.8828	0.9710	0.8414	0.8360	High Income	x		
67	Slovakia	Europe	Eastern Europe	0.5915	0.4420	0.5504	0.7822	High Income			
21	Slovenia	Europe	Southern Europe	0.7769	0.8478	0.5877	0.8952	High Income			
164	Solomon Islands	Oceania	Oceania	0.2406	0.1667	0.1150	0.4402	Lower Middle Income	x		
193	Somalia	Africa	Eastern Africa	0.0270	0.0145	0.0665	0.0000	Low Income	x		
76	South Africa	Africa	Southern Africa	0.5546	0.5580	0.3807	0.7253	Upper Middle Income			
183	South Sudan	Africa	Northern Africa	0.1791	0.1232	0.0534	0.3607	Low Income	x		
17	Spain	Europe	Southern Europe	0.8135	0.9130	0.6493	0.8782	High Income			
79	Sri Lanka	Asia	Southern Asia	0.5445	0.6522	0.2445	0.7369	Lower Middle Income			
161	Sudan	Africa	Northern Africa	0.2539	0.2174	0.1861	0.3581	Lower Middle Income	x		
110	Suriname	Americas	South America	0.4546	0.2971	0.4116	0.6551	Upper Middle Income	x		
136	Swaziland	Africa	Southern Africa	0.3412	0.2754	0.1601	0.5882	Lower Middle Income	x		
6	Sweden	Europe	Northern Europe	0.8704	0.8768	0.8134	0.9210	High Income			
28	Switzerland	Europe	Western Europe	0.7525	0.6014	0.7980	0.8579	High Income			
137	Syrian Arab Republic	Asia	Western Asia	0.3404	0.3261	0.2087	0.4864	Lower Middle Income			
139	Tajikistan	Asia	Central Asia	0.3366	0.1232	0.1866	0.7001	Low Income	x		
77	Thailand	Asia	South-Eastern Asia	0.5522	0.5507	0.4117	0.6942	Upper Middle Income			
69	The former Yugoslav Republic of Macedonia	Europe	Southern Europe	0.5885	0.6087	0.4693	0.6877	Upper Middle Income	x		
160	Timor-Leste	Asia	South-Eastern Asia	0.2582	0.2174	0.0728	0.4843	Lower Middle Income	x	x	

Table 1. Country Profiles (continued)

Rank	Country	Region	Sub-Region	EGDI 2016	OSI	TII	HCI	Level of Income	LDC	LLDC	SIDS
147	Togo	Africa	West Africa	0.3096	0.3188	0.1044	0.5056	Low Income	x		
105	Tonga	Oceania	Oceania	0.4700	0.3696	0.2302	0.8102	Upper Middle Income	x		
70	Trinidad and Tobago	Americas	Caribbean	0.5780	0.5290	0.4973	0.7077	High Income	x		
72	Tunisia	Africa	Northern Africa	0.5682	0.7174	0.3476	0.6397	Upper Middle Income			
68	Turkey	Asia	Western Asia	0.5900	0.6014	0.3775	0.7910	Upper Middle Income			
140	Turkmenistan	Asia	Central Asia	0.3337	0.0870	0.2559	0.6583	Upper Middle Income	x		
151	Tuvalu	Oceania	Oceania	0.2950	0.0217	0.1981	0.6651	Upper Middle Income	x		
128	Uganda	Africa	Eastern Africa	0.3599	0.5000	0.1129	0.4668	Low Income	x	x	
62	Ukraine	Europe	Eastern Europe	0.6076	0.5870	0.3968	0.8390	Lower Middle Income			
29	United Arab Emirates	Asia	Western Asia	0.7515	0.8913	0.6881	0.6752	High Income			
1	United Kingdom of Great Britain and Northern Ireland	Europe	Northern Europe	0.9193	1.0000	0.8177	0.9402	High Income			
130	United Republic of Tanzania	Africa	Eastern Africa	0.3533	0.5725	0.0900	0.3974	Low Income	x		
12	United States of America	Americas	North America	0.8420	0.9275	0.7170	0.8815	High Income			
34	Uruguay	Americas	South America	0.7237	0.7754	0.6137	0.7820	High Income			
80	Uzbekistan	Asia	Central Asia	0.5434	0.6884	0.2463	0.6954	Lower Middle Income	x		
149	Vanuatu	Oceania	Oceania	0.3078	0.1667	0.1684	0.5884	Lower Middle Income	x		
90	Venezuela	Americas	South America	0.5128	0.4348	0.3540	0.7498	Upper Middle Income			
89	Viet Nam	Asia	South-Eastern Asia	0.5143	0.5725	0.3715	0.5989	Lower Middle Income			
174	Yemen	Asia	Western Asia	0.2248	0.1449	0.1465	0.3829	Lower Middle Income	x		
132	Zambia	Africa	Eastern Africa	0.3507	0.3696	0.1182	0.5643	Lower Middle Income	x	x	
134	Zimbabwe	Africa	Eastern Africa	0.3472	0.2609	0.2167	0.5641	Low Income	x		
World Average											
EGDI 2016											
OSI											
TII											
HCI											

Table 2. E-Government Development Index (EGDI)

Rank	Country	EGDI Level	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
171	Afghanistan	Low	0.2313	0.3043	0.1066	0.2830
82	Albania	High	0.5331	0.5942	0.3530	0.6520
150	Algeria	Medium	0.2999	0.0652	0.1934	0.6412
55	Andorra	High	0.6302	0.5072	0.6855	0.6978
142	Angola	Medium	0.3311	0.3478	0.1441	0.5015
100	Antigua and Barbuda	Medium	0.4892	0.1812	0.5412	0.7453
41	Argentina	High	0.6978	0.7101	0.5031	0.8802
87	Armenia	High	0.5179	0.4275	0.3922	0.7338
2	Australia	Very high	0.9143	0.9783	0.7646	1.0000
16	Austria	Very high	0.8208	0.9130	0.7098	0.8396
56	Azerbaijan	High	0.6274	0.6812	0.4852	0.7158
93	Bahamas	High	0.5108	0.4275	0.3842	0.7207
24	Bahrain	Very high	0.7734	0.8261	0.7762	0.7178
124	Bangladesh	Medium	0.3799	0.6232	0.1193	0.3973
54	Barbados	High	0.6310	0.4420	0.6397	0.8113
49	Belarus	High	0.6625	0.4855	0.6304	0.8716
19	Belgium	Very high	0.7874	0.7101	0.6808	0.9712
122	Belize	Medium	0.3825	0.3188	0.1834	0.6454
177	Benin	Low	0.2039	0.1449	0.1471	0.3196
133	Bhutan	Medium	0.3506	0.3188	0.2192	0.5139
101	Bolivia	Medium	0.4821	0.4928	0.2532	0.7004
92	Bosnia and Herzegovina	High	0.5118	0.4493	0.4047	0.6815
113	Botswana	Medium	0.4531	0.2826	0.4215	0.6553
51	Brazil	High	0.6377	0.7319	0.5025	0.6787
83	Brunei Darussalam	High	0.5298	0.5072	0.3512	0.7310
52	Bulgaria	High	0.6376	0.5652	0.5602	0.7875
185	Burkina Faso	Low	0.1598	0.1884	0.1232	0.1677
173	Burundi	Low	0.2277	0.1522	0.0331	0.4979
158	Cambodia	Medium	0.2593	0.0507	0.2486	0.4785
155	Cameroon	Medium	0.2759	0.2174	0.1310	0.4794
14	Canada	Very high	0.8285	0.9565	0.6717	0.8572
103	Cape Verde	Medium	0.4742	0.4565	0.3629	0.6031
191	Central African Republic	Low	0.0789	0.0000	0.0381	0.1985
188	Chad	Low	0.1256	0.1377	0.0476	0.1917
42	Chile	High	0.6949	0.7754	0.4970	0.8124
63	China	High	0.6071	0.7681	0.3673	0.6860
57	Colombia	High	0.6237	0.7899	0.3813	0.7000
176	Comoros	Low	0.2155	0.0507	0.1073	0.4885
162	Congo	Low	0.2497	0.0435	0.1713	0.5344
53	Costa Rica	High	0.6314	0.6377	0.5129	0.7436
175	Côte d'Ivoire	Low	0.2185	0.1884	0.1711	0.2959
37	Croatia	High	0.7162	0.7464	0.5974	0.8050
131	Cuba	Medium	0.3522	0.1957	0.1103	0.7507
64	Cyprus	High	0.6023	0.5362	0.4923	0.7782

Table 2. E-Government Development Index (EGDI) (continued)

Rank	Country	EGDI Level	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
50	Czech Republic	High	0.6454	0.4783	0.5952	0.8627
153	Democratic People's Republic of Korea	Medium	0.2801	0.0217	0.0363	0.7822
180	Democratic Republic of the Congo	Low	0.1876	0.0870	0.0788	0.3970
9	Denmark	Very high	0.8510	0.7754	0.8247	0.9530
187	Djibouti	Low	0.1337	0.0217	0.0698	0.3095
109	Dominica	Medium	0.4577	0.3043	0.4305	0.6384
98	Dominican Republic	Medium	0.4914	0.5072	0.2992	0.6676
74	Ecuador	High	0.5625	0.6304	0.3438	0.7134
108	Egypt	Medium	0.4594	0.4710	0.3025	0.6048
104	El Salvador	Medium	0.4718	0.4855	0.3265	0.6035
165	Equatorial Guinea	Low	0.2403	0.0797	0.1237	0.5174
190	Eritrea	Low	0.0902	0.0217	0.0000	0.2487
13	Estonia	Very high	0.8334	0.8913	0.7329	0.8761
157	Ethiopia	Medium	0.2666	0.5290	0.0495	0.2212
96	Fiji	Medium	0.4989	0.4130	0.3326	0.7509
5	Finland	Very high	0.8817	0.9420	0.7590	0.9440
10	France	Very high	0.8456	0.9420	0.7502	0.8445
129	Gabon	Medium	0.3584	0.1522	0.3068	0.6162
167	Gambia	Low	0.2396	0.1957	0.1959	0.3274
61	Georgia	High	0.6108	0.6377	0.4184	0.7763
15	Germany	Very high	0.8210	0.8406	0.7342	0.8882
120	Ghana	Medium	0.4181	0.4493	0.2594	0.5458
43	Greece	High	0.6910	0.5797	0.6032	0.8901
88	Grenada	High	0.5168	0.3696	0.3988	0.7820
102	Guatemala	Medium	0.4790	0.6667	0.2358	0.5345
189	Guinea	Low	0.1226	0.0870	0.0906	0.1903
181	Guinea-Bissau	Low	0.1818	0.1087	0.0828	0.3538
126	Guyana	Medium	0.3651	0.2826	0.2432	0.5694
178	Haiti	Low	0.1931	0.1667	0.1004	0.3124
127	Honduras	Medium	0.3611	0.3116	0.2008	0.5709
46	Hungary	High	0.6745	0.6304	0.5615	0.8317
27	Iceland	Very high	0.7662	0.6232	0.7814	0.8940
107	India	Medium	0.4637	0.7464	0.1430	0.5019
116	Indonesia	Medium	0.4478	0.3623	0.3016	0.6796
106	Iran (Islamic Republic of)	Medium	0.4649	0.3333	0.3514	0.7101
141	Iraq	Medium	0.3334	0.3551	0.1647	0.4803
26	Ireland	Very high	0.7689	0.7246	0.6602	0.9218
20	Israel	Very high	0.7806	0.8623	0.6175	0.8619
22	Italy	Very high	0.7764	0.8696	0.6469	0.8126
112	Jamaica	Medium	0.4534	0.3551	0.3193	0.6859
11	Japan	Very high	0.8440	0.8768	0.8277	0.8274
91	Jordan	High	0.5123	0.4565	0.3458	0.7344
33	Kazakhstan	High	0.7250	0.7681	0.5668	0.8401
119	Kenya	Medium	0.4186	0.5580	0.1808	0.5169

Table 2. E-Government Development Index (EGDI) (continued)

Rank	Country	EGDI Level	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
145	Kiribati	Medium	0.3122	0.2101	0.0665	0.6599
40	Kuwait	High	0.7080	0.6522	0.7430	0.7287
97	Kyrgyzstan	Medium	0.4969	0.4275	0.3123	0.7508
148	Lao People's Democratic Republic	Medium	0.3090	0.2826	0.1537	0.4907
45	Latvia	High	0.6810	0.6087	0.5831	0.8512
73	Lebanon	High	0.5646	0.5145	0.4911	0.6882
154	Lesotho	Medium	0.2770	0.1377	0.1787	0.5147
170	Liberia	Low	0.2338	0.2391	0.1041	0.3581
118	Libya	Medium	0.4322	0.1087	0.4291	0.7588
32	Liechtenstein	High	0.7313	0.6667	0.7293	0.7978
23	Lithuania	Very high	0.7747	0.8261	0.6262	0.8717
25	Luxembourg	Very high	0.7705	0.7174	0.8190	0.7750
163	Madagascar	Low	0.2416	0.2246	0.0514	0.4488
166	Malawi	Low	0.2398	0.2174	0.0485	0.4535
60	Malaysia	High	0.6175	0.7174	0.4397	0.6953
117	Maldives	Medium	0.4330	0.2319	0.4370	0.6301
182	Mali	Low	0.1817	0.0942	0.2149	0.2358
30	Malta	High	0.7424	0.7971	0.6992	0.7310
156	Marshall Islands	Medium	0.2695	0.0290	0.0849	0.6947
184	Mauritania	Low	0.1734	0.0652	0.1536	0.3015
58	Mauritius	High	0.6231	0.7029	0.4596	0.7067
59	Mexico	High	0.6195	0.8478	0.3114	0.6993
146	Micronesia (Federated States of)	Medium	0.3103	0.1449	0.1197	0.6663
31	Monaco	High	0.7315	0.3188	1.0000	0.8757
84	Mongolia	High	0.5194	0.5145	0.2841	0.7597
47	Montenegro	High	0.6733	0.6812	0.5221	0.8165
85	Morocco	High	0.5186	0.7391	0.3429	0.4737
172	Mozambique	Low	0.2305	0.2029	0.0993	0.3893
169	Myanmar	Low	0.2362	0.1594	0.0655	0.4837
125	Namibia	Medium	0.3682	0.2826	0.2669	0.5551
152	Nauru	Medium	0.2868	0.0942	0.2448	0.5214
135	Nepal	Medium	0.3458	0.3986	0.1675	0.4714
7	Netherlands	Very high	0.8659	0.9275	0.7517	0.9183
8	New Zealand	Very high	0.8653	0.9420	0.7136	0.9402
123	Nicaragua	Medium	0.3801	0.3841	0.2109	0.5454
192	Niger	Low	0.0593	0.0725	0.0557	0.0498
143	Nigeria	Medium	0.3291	0.4130	0.1958	0.3784
18	Norway	Very high	0.8117	0.8043	0.7276	0.9031
66	Oman	High	0.5962	0.5942	0.5147	0.6796
159	Pakistan	Medium	0.2583	0.3261	0.1299	0.3190
111	Palau	Medium	0.4546	0.1087	0.3684	0.8867
99	Panama	Medium	0.4903	0.3333	0.4202	0.7175
179	Papua New Guinea	Low	0.1882	0.1667	0.0739	0.3240
95	Paraguay	Medium	0.4989	0.6014	0.2544	0.6409

Table 2. E-Government Development Index (EGDI) (continued)

Rank	Country	EGDI Level	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
81	Peru	High	0.5381	0.6304	0.2689	0.7151
71	Philippines	High	0.5765	0.6667	0.3791	0.6839
36	Poland	High	0.7211	0.7029	0.5857	0.8747
38	Portugal	High	0.7144	0.7464	0.5838	0.8129
48	Qatar	High	0.6699	0.6739	0.6041	0.7317
3	Republic of Korea	Very high	0.8915	0.9420	0.8530	0.8795
65	Republic of Moldova	High	0.5994	0.5942	0.4850	0.7191
75	Romania	High	0.5611	0.4565	0.4533	0.7736
35	Russian Federation	High	0.7215	0.7319	0.6091	0.8234
138	Rwanda	Medium	0.3390	0.4565	0.1084	0.4522
94	Saint Kitts and Nevis	High	0.5034	0.2826	0.5301	0.6976
114	Saint Lucia	Medium	0.4531	0.2754	0.4094	0.6744
115	Saint Vincent and the Grenadines	Medium	0.4494	0.2971	0.3756	0.6754
121	Samoa	Medium	0.4019	0.3406	0.1576	0.7076
78	San Marino	High	0.5506	0.2391	0.6128	0.7999
168	Sao Tome and Principe	Low	0.2390	0.0435	0.1547	0.5188
44	Saudi Arabia	High	0.6822	0.6739	0.5733	0.7995
144	Senegal	Medium	0.3250	0.3768	0.1958	0.4025
39	Serbia	High	0.7131	0.8188	0.5434	0.7769
86	Seychelles	High	0.5181	0.4058	0.4624	0.6861
186	Sierra Leone	Low	0.1594	0.1159	0.1216	0.2407
4	Singapore	Very high	0.8828	0.9710	0.8414	0.8360
67	Slovakia	High	0.5915	0.4420	0.5504	0.7822
21	Slovenia	Very high	0.7769	0.8478	0.5877	0.8952
164	Solomon Islands	Low	0.2406	0.1667	0.1150	0.4402
193	Somalia	Low	0.0270	0.0145	0.0665	0.0000
76	South Africa	High	0.5546	0.5580	0.3807	0.7253
183	South Sudan	Low	0.1791	0.1232	0.0534	0.3607
17	Spain	Very high	0.8135	0.9130	0.6493	0.8782
79	Sri Lanka	High	0.5445	0.6522	0.2445	0.7369
161	Sudan	Medium	0.2539	0.2174	0.1861	0.3581
110	Suriname	Medium	0.4546	0.2971	0.4116	0.6551
136	Swaziland	Medium	0.3412	0.2754	0.1601	0.5882
6	Sweden	Very high	0.8704	0.8768	0.8134	0.9210
28	Switzerland	Very high	0.7525	0.6014	0.7980	0.8579
137	Syrian Arab Republic	Medium	0.3404	0.3261	0.2087	0.4864
139	Tajikistan	Medium	0.3366	0.1232	0.1866	0.7001
77	Thailand	High	0.5522	0.5507	0.4117	0.6942
69	The former Yugoslav Republic of Macedonia	High	0.5885	0.6087	0.4693	0.6877
160	Timor-Leste	Medium	0.2582	0.2174	0.0728	0.4843
147	Togo	Medium	0.3096	0.3188	0.1044	0.5056
105	Tonga	Medium	0.4700	0.3696	0.2302	0.8102
70	Trinidad and Tobago	High	0.5780	0.5290	0.4973	0.7077
72	Tunisia	High	0.5682	0.7174	0.3476	0.6397

Table 2. E-Government Development Index (EGDI) (continued)

Rank	Country	EGDI Level	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
68	Turkey	High	0.5900	0.6014	0.3775	0.7910
140	Turkmenistan	Medium	0.3337	0.0870	0.2559	0.6583
151	Tuvalu	Medium	0.2950	0.0217	0.1981	0.6651
128	Uganda	Medium	0.3599	0.5000	0.1129	0.4668
62	Ukraine	High	0.6076	0.5870	0.3968	0.8390
29	United Arab Emirates	Very high	0.7515	0.8913	0.6881	0.6752
1	United Kingdom of Great Britain and Northern Ireland	Very high	0.9193	1.0000	0.8177	0.9402
130	United Republic of Tanzania	Medium	0.3533	0.5725	0.0900	0.3974
12	United States of America	Very high	0.8420	0.9275	0.7170	0.8815
34	Uruguay	High	0.7237	0.7754	0.6137	0.7820
80	Uzbekistan	High	0.5434	0.6884	0.2463	0.6954
149	Vanuatu	Medium	0.3078	0.1667	0.1684	0.5884
90	Venezuela	High	0.5128	0.4348	0.3540	0.7498
89	Viet Nam	High	0.5143	0.5725	0.3715	0.5989
174	Yemen	Low	0.2248	0.1449	0.1465	0.3829
132	Zambia	Medium	0.3507	0.3696	0.1182	0.5643
134	Zimbabwe	Medium	0.3472	0.2609	0.2167	0.5641
Global Average			0.4922	0.4623	0.3711	0.6433

Table 3. Regional and Economic Groupings for E-Government Development Index (EGDI)

Region	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
Africa	0.2882	0.2567	0.1724	0.4355
Americas	0.5245	0.4959	0.3844	0.6933
Asia	0.5132	0.5120	0.3730	0.6545
Europe	0.7241	0.6926	0.6438	0.8360
Oceania	0.4154	0.2966	0.2599	0.6897
World	0.4922	0.4623	0.3711	0.6433

	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
Small Island Developing States	0.4189	0.3021	0.3103	0.6442
Land Locked Developing Countries	0.3591	0.3474	0.2131	0.5170
Least Developed Countries	0.2350	0.2030	0.1145	0.3875

Level of Income	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
High Income	0.4980	0.4678	0.3789	0.6471
Upper Middle Income	0.4964	0.4658	0.3759	0.6476
Lower Middle Income	0.3861	0.3719	0.2292	0.5573
Low Income	0.2303	0.2101	0.1062	0.3746

Table 4. E-Government Development Index (EGDI) by region - AFRICA

Rank	Country	Sub-region	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
150	Algeria	Northern Africa	0.2999	0.0652	0.1934	0.6412
142	Angola	Central Africa	0.3311	0.3478	0.1441	0.5015
177	Benin	West Africa	0.2039	0.1449	0.1471	0.3196
113	Botswana	Southern Africa	0.4531	0.2826	0.4215	0.6553
185	Burkina Faso	West Africa	0.1598	0.1884	0.1232	0.1677
173	Burundi	Eastern Africa	0.2277	0.1522	0.0331	0.4979
155	Cameroon	Central Africa	0.2759	0.2174	0.1310	0.4794
103	Cape Verde	West Africa	0.4742	0.4565	0.3629	0.6031
191	Central African Republic	Central Africa	0.0789	0.0000	0.0381	0.1985
188	Chad	Central Africa	0.1256	0.1377	0.0476	0.1917
176	Comoros	Eastern Africa	0.2155	0.0507	0.1073	0.4885
162	Congo	Central Africa	0.2497	0.0435	0.1713	0.5344
175	Côte d'Ivoire	West Africa	0.2185	0.1884	0.1711	0.2959
180	Democratic Republic of the Congo	Central Africa	0.1876	0.0870	0.0788	0.3970
187	Djibouti	Eastern Africa	0.1337	0.0217	0.0698	0.3095
108	Egypt	Northern Africa	0.4594	0.4710	0.3025	0.6048
165	Equatorial Guinea	Central Africa	0.2403	0.0797	0.1237	0.5174
190	Eritrea	Eastern Africa	0.0902	0.0217	0.0000	0.2487
157	Ethiopia	Eastern Africa	0.2666	0.5290	0.0495	0.2212
129	Gabon	Central Africa	0.3584	0.1522	0.3068	0.6162
167	Gambia	West Africa	0.2396	0.1957	0.1959	0.3274
120	Ghana	West Africa	0.4181	0.4493	0.2594	0.5458
189	Guinea	West Africa	0.1226	0.0870	0.0906	0.1903
181	Guinea-Bissau	West Africa	0.1818	0.1087	0.0828	0.3538
119	Kenya	Eastern Africa	0.4186	0.5580	0.1808	0.5169
154	Lesotho	Southern Africa	0.2770	0.1377	0.1787	0.5147
170	Liberia	West Africa	0.2338	0.2391	0.1041	0.3581
118	Libya	Northern Africa	0.4322	0.1087	0.4291	0.7588
163	Madagascar	Eastern Africa	0.2416	0.2246	0.0514	0.4488
166	Malawi	Eastern Africa	0.2398	0.2174	0.0485	0.4535
182	Mali	West Africa	0.1817	0.0942	0.2149	0.2358
184	Mauritania	West Africa	0.1734	0.0652	0.1536	0.3015
58	Mauritius	Eastern Africa	0.6231	0.7029	0.4596	0.7067
85	Morocco	Northern Africa	0.5186	0.7391	0.3429	0.4737
172	Mozambique	Eastern Africa	0.2305	0.2029	0.0993	0.3893
125	Namibia	Southern Africa	0.3682	0.2826	0.2669	0.5551
192	Niger	West Africa	0.0593	0.0725	0.0557	0.0498
143	Nigeria	West Africa	0.3291	0.4130	0.1958	0.3784
138	Rwanda	Eastern Africa	0.3390	0.4565	0.1084	0.4522
168	Sao Tome and Principe	Central Africa	0.2390	0.0435	0.1547	0.5188
144	Senegal	West Africa	0.3250	0.3768	0.1958	0.4025
86	Seychelles	Eastern Africa	0.5181	0.4058	0.4624	0.6861

Table 4. E-Government Development Index (EGDI) by region - AFRICA (continued)

Rank	Country	Sub-region	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
186	Sierra Leone	West Africa	0.1594	0.1159	0.1216	0.2407
193	Somalia	Eastern Africa	0.0270	0.0145	0.0665	0.0000
76	South Africa	Southern Africa	0.5546	0.5580	0.3807	0.7253
183	South Sudan	Northern Africa	0.1791	0.1232	0.0534	0.3607
161	Sudan	Northern Africa	0.2539	0.2174	0.1861	0.3581
136	Swaziland	Southern Africa	0.3412	0.2754	0.1601	0.5882
147	Togo	West Africa	0.3096	0.3188	0.1044	0.5056
72	Tunisia	Northern Africa	0.5682	0.7174	0.3476	0.6397
128	Uganda	Eastern Africa	0.3599	0.5000	0.1129	0.4668
130	United Republic of Tanzania	Eastern Africa	0.3533	0.5725	0.0900	0.3974
132	Zambia	Eastern Africa	0.3507	0.3696	0.1182	0.5643
134	Zimbabwe	Eastern Africa	0.3472	0.2609	0.2167	0.5641
Regional Average (AFRICA)			0.2882	0.2567	0.1724	0.4355

Table 5. E-Government Development Index (EGDI) by region - AMERICAS

Rank	Country	Sub-region	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
100	Antigua and Barbuda	Caribbean	0.4892	0.1812	0.5412	0.7453
41	Argentina	South America	0.6978	0.7101	0.5031	0.8802
93	Bahamas	Caribbean	0.5108	0.4275	0.3842	0.7207
54	Barbados	Caribbean	0.6310	0.4420	0.6397	0.8113
122	Belize	Central America	0.3825	0.3188	0.1834	0.6454
101	Bolivia	South America	0.4821	0.4928	0.2532	0.7004
51	Brazil	South America	0.6377	0.7319	0.5025	0.6787
14	Canada	North America	0.8285	0.9565	0.6717	0.8572
42	Chile	South America	0.6949	0.7754	0.4970	0.8124
57	Colombia	South America	0.6237	0.7899	0.3813	0.7000
53	Costa Rica	Central America	0.6314	0.6377	0.5129	0.7436
131	Cuba	Caribbean	0.3522	0.1957	0.1103	0.7507
109	Dominica	Caribbean	0.4577	0.3043	0.4305	0.6384
98	Dominican Republic	Caribbean	0.4914	0.5072	0.2992	0.6676
74	Ecuador	South America	0.5625	0.6304	0.3438	0.7134
104	El Salvador	Central America	0.4718	0.4855	0.3265	0.6035
88	Grenada	Caribbean	0.5168	0.3696	0.3988	0.7820
102	Guatemala	Central America	0.4790	0.6667	0.2358	0.5345
126	Guyana	South America	0.3651	0.2826	0.2432	0.5694
178	Haiti	Caribbean	0.19a31	0.1667	0.1004	0.3124
127	Honduras	Central America	0.3611	0.3116	0.2008	0.5709
112	Jamaica	Caribbean	0.4534	0.3551	0.3193	0.6859
59	Mexico	Central America	0.6195	0.8478	0.3114	0.6993
123	Nicaragua	Central America	0.3801	0.3841	0.2109	0.5454
99	Panama	Central America	0.4903	0.3333	0.4202	0.7175
95	Paraguay	South America	0.4989	0.6014	0.2544	0.6409
81	Peru	South America	0.5381	0.6304	0.2689	0.7151
94	Saint Kitts and Nevis	Caribbean	0.5034	0.2826	0.5301	0.6976
114	Saint Lucia	Caribbean	0.4531	0.2754	0.4094	0.6744
115	Saint Vincent and the Grenadines	Caribbean	0.4494	0.2971	0.3756	0.6754
110	Suriname	South America	0.4546	0.2971	0.4116	0.6551
70	Trinidad and Tobago	Caribbean	0.5780	0.5290	0.4973	0.7077
12	United States of America	North America	0.8420	0.9275	0.7170	0.8815
34	Uruguay	South America	0.7237	0.7754	0.6137	0.7820
90	Venezuela	South America	0.5128	0.4348	0.3540	0.7498
172	Mozambique	Eastern Africa	0.2305	0.2029	0.0993	0.3893
173	Burundi	Eastern Africa	0.2277	0.1522	0.0331	0.4979
175	Côte d'Ivoire	West Africa	0.2185	0.1884	0.1711	0.2959
176	Comoros	Eastern Africa	0.2155	0.0507	0.1073	0.4885
177	Benin	West Africa	0.2039	0.1449	0.1471	0.3196
Regional Average (AMERICAS)			0.5245	0.4959	0.3844	0.6933

Table 6. E-Government Development Index (EGDI) by region - ASIA

Rank	Country	Sub-region	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
171	Afghanistan	Southern Asia	0.2313	0.3043	0.1066	0.2830
87	Armenia	Western Asia	0.5179	0.4275	0.3922	0.7338
56	Azerbaijan	Western Asia	0.6274	0.6812	0.4852	0.7158
24	Bahrain	Western Asia	0.7734	0.8261	0.7762	0.7178
124	Bangladesh	Southern Asia	0.3799	0.6232	0.1193	0.3973
133	Bhutan	Southern Asia	0.3506	0.3188	0.2192	0.5139
83	Brunei Darussalam	South-Eastern Asia	0.5298	0.5072	0.3512	0.7310
158	Cambodia	South-Eastern Asia	0.2593	0.0507	0.2486	0.4785
63	China	Eastern Asia	0.6071	0.7681	0.3673	0.6860
64	Cyprus	Western Asia	0.6023	0.5362	0.4923	0.7782
153	Democratic People's Republic of Korea	Eastern Asia	0.2801	0.0217	0.0363	0.7822
61	Georgia	Western Asia	0.6108	0.6377	0.4184	0.7763
107	India	Southern Asia	0.4637	0.7464	0.1430	0.5019
116	Indonesia	South-Eastern Asia	0.4478	0.3623	0.3016	0.6796
106	Iran (Islamic Republic of)	Southern Asia	0.4649	0.3333	0.3514	0.7101
141	Iraq	Western Asia	0.3334	0.3551	0.1647	0.4803
20	Israel	Western Asia	0.7806	0.8623	0.6175	0.8619
11	Japan	Eastern Asia	0.8440	0.8768	0.8277	0.8274
91	Jordan	Western Asia	0.5123	0.4565	0.3458	0.7344
33	Kazakhstan	Central Asia	0.7250	0.7681	0.5668	0.8401
40	Kuwait	Western Asia	0.7080	0.6522	0.7430	0.7287
97	Kyrgyzstan	Central Asia	0.4969	0.4275	0.3123	0.7508
148	Lao People's Democratic Republic	South-Eastern Asia	0.3090	0.2826	0.1537	0.4907
73	Lebanon	Western Asia	0.5646	0.5145	0.4911	0.6882
60	Malaysia	South-Eastern Asia	0.6175	0.7174	0.4397	0.6953
117	Maldives	Southern Asia	0.4330	0.2319	0.4370	0.6301
84	Mongolia	Eastern Asia	0.5194	0.5145	0.2841	0.7597
169	Myanmar	South-Eastern Asia	0.2362	0.1594	0.0655	0.4837
135	Nepal	Southern Asia	0.3458	0.3986	0.1675	0.4714
66	Oman	Western Asia	0.5962	0.5942	0.5147	0.6796
159	Pakistan	Southern Asia	0.2583	0.3261	0.1299	0.3190
71	Philippines	South-Eastern Asia	0.5765	0.6667	0.3791	0.6839
48	Qatar	Western Asia	0.6699	0.6739	0.6041	0.7317
3	Republic of Korea	Eastern Asia	0.8915	0.9420	0.8530	0.8795
44	Saudi Arabia	Western Asia	0.6822	0.6739	0.5733	0.7995
4	Singapore	South-Eastern Asia	0.8828	0.9710	0.8414	0.8360
79	Sri Lanka	Southern Asia	0.5445	0.6522	0.2445	0.7369
137	Syrian Arab Republic	Western Asia	0.3404	0.3261	0.2087	0.4864
139	Tajikistan	Central Asia	0.3366	0.1232	0.1866	0.7001
77	Thailand	South-Eastern Asia	0.5522	0.5507	0.4117	0.6942
160	Timor-Leste	South-Eastern Asia	0.2582	0.2174	0.0728	0.4843
68	Turkey	Western Asia	0.5900	0.6014	0.3775	0.7910

Table 6. E-Government Development Index (EGDI) by region - ASIA (continued)

Rank	Country	Sub-region	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
140	Turkmenistan	Central Asia	0.3337	0.0870	0.2559	0.6583
29	United Arab Emirates	Western Asia	0.7515	0.8913	0.6881	0.6752
80	Uzbekistan	Central Asia	0.5434	0.6884	0.2463	0.6954
89	Viet Nam	South-Eastern Asia	0.5143	0.5725	0.3715	0.5989
174	Yemen	Western Asia	0.2248	0.1449	0.1465	0.3829
Regional Average (ASIA)			0.5132	0.5120	0.3730	0.6545

Table 7. E-Government Development Index (EGDI) by region - EUROPE

Rank	Country	Sub-region	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
82	Albania	Southern Europe	0.5331	0.5942	0.3530	0.6520
55	Andorra	Southern Europe	0.6302	0.5072	0.6855	0.6978
16	Austria	Western Europe	0.8208	0.9130	0.7098	0.8396
49	Belarus	Eastern Europe	0.6625	0.4855	0.6304	0.8716
19	Belgium	Western Europe	0.7874	0.7101	0.6808	0.9712
92	Bosnia and Herzegovina	Southern Europe	0.5118	0.4493	0.4047	0.6815
52	Bulgaria	Eastern Europe	0.6376	0.5652	0.5602	0.7875
37	Croatia	Southern Europe	0.7162	0.7464	0.5974	0.8050
50	Czech Republic	Eastern Europe	0.6454	0.4783	0.5952	0.8627
9	Denmark	Northern Europe	0.8510	0.7754	0.8247	0.9530
13	Estonia	Northern Europe	0.8334	0.8913	0.7329	0.8761
5	Finland	Northern Europe	0.8817	0.9420	0.7590	0.9440
10	France	Western Europe	0.8456	0.9420	0.7502	0.8445
15	Germany	Western Europe	0.8210	0.8406	0.7342	0.8882
43	Greece	Southern Europe	0.6910	0.5797	0.6032	0.8901
46	Hungary	Eastern Europe	0.6745	0.6304	0.5615	0.8317
27	Iceland	Northern Europe	0.7662	0.6232	0.7814	0.8940
26	Ireland	Northern Europe	0.7689	0.7246	0.6602	0.9218
22	Italy	Southern Europe	0.7764	0.8696	0.6469	0.8126
45	Latvia	Northern Europe	0.6810	0.6087	0.5831	0.8512
32	Liechtenstein	Western Europe	0.7313	0.6667	0.7293	0.7978
23	Lithuania	Northern Europe	0.7747	0.8261	0.6262	0.8717
25	Luxembourg	Western Europe	0.7705	0.7174	0.8190	0.7750
30	Malta	Southern Europe	0.7424	0.7971	0.6992	0.7310
31	Monaco	Western Europe	0.7315	0.3188	1.0000	0.8757
47	Montenegro	Southern Europe	0.6733	0.6812	0.5221	0.8165
7	Netherlands	Western Europe	0.8659	0.9275	0.7517	0.9183
18	Norway	Northern Europe	0.8117	0.8043	0.7276	0.9031
36	Poland	Eastern Europe	0.7211	0.7029	0.5857	0.8747
38	Portugal	Southern Europe	0.7144	0.7464	0.5838	0.8129
65	Republic of Moldova	Eastern Europe	0.5994	0.5942	0.4850	0.7191
75	Romania	Eastern Europe	0.5611	0.4565	0.4533	0.7736
35	Russian Federation	Eastern Europe	0.7215	0.7319	0.6091	0.8234
78	San Marino	Southern Europe	0.5506	0.2391	0.6128	0.7999
39	Serbia	Southern Europe	0.7131	0.8188	0.5434	0.7769
67	Slovakia	Eastern Europe	0.5915	0.4420	0.5504	0.7822
21	Slovenia	Southern Europe	0.7769	0.8478	0.5877	0.8952
17	Spain	Southern Europe	0.8135	0.9130	0.6493	0.8782
6	Sweden	Northern Europe	0.8704	0.8768	0.8134	0.9210
28	Switzerland	Western Europe	0.7525	0.6014	0.7980	0.8579
69	The former Yugoslav Republic of Macedonia	Southern Europe	0.5885	0.6087	0.4693	0.6877

Table 7. E-Government Development Index (EGDI) by region - EUROPE (continued)

Rank	Country	Sub-region	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
62	Ukraine	Eastern Europe	0.6076	0.5870	0.3968	0.8390
1	United Kingdom of Great Britain and Northern Ireland	Northern Europe	0.9193	1.0000	0.8177	0.9402
Regional Average (EUROPE)			0.7241	0.6926	0.6438	0.6897

Table 8. E-Government Development Index (EGDI) by region - OCEANIA

Rank	Country	Sub-region	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
2	Australia	Oceania	0.9143	0.9783	0.7646	1.0000
96	Fiji	Oceania	0.4989	0.4130	0.3326	0.7509
145	Kiribati	Oceania	0.3122	0.2101	0.0665	0.6599
156	Marshall Islands	Oceania	0.2695	0.0290	0.0849	0.6947
146	Micronesia (Federated States of)	Oceania	0.3103	0.1449	0.1197	0.6663
152	Nauru	Oceania	0.2868	0.0942	0.2448	0.5214
8	New Zealand	Oceania	0.8653	0.9420	0.7136	0.9402
111	Palau	Oceania	0.4546	0.1087	0.3684	0.8867
179	Papua New Guinea	Oceania	0.1882	0.1667	0.0739	0.3240
121	Samoa	Oceania	0.4019	0.3406	0.1576	0.7076
164	Solomon Islands	Oceania	0.2406	0.1667	0.1150	0.4402
105	Tonga	Oceania	0.4700	0.3696	0.2302	0.8102
151	Tuvalu	Oceania	0.2950	0.0217	0.1981	0.6651
149	Vanuatu	Oceania	0.3078	0.1667	0.1684	0.5884
Regional Average (OCEANIA)			0.4154	0.2966	0.2599	0.6897

Table 9. E-Government Development Index (EGDI) of Least Developed Countries (LDCs)

Rank	Country	Sub-region	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
171	Afghanistan	Southern Asia	0.2313	0.3043	0.1066	0.2830
142	Angola	Central Africa	0.3311	0.3478	0.1441	0.5015
124	Bangladesh	Southern Asia	0.3799	0.6232	0.1193	0.3973
177	Benin	West Africa	0.2039	0.1449	0.1471	0.3196
133	Bhutan	Southern Asia	0.3506	0.3188	0.2192	0.5139
185	Burkina Faso	West Africa	0.1598	0.1884	0.1232	0.1677
173	Burundi	Eastern Africa	0.2277	0.1522	0.0331	0.4979
158	Cambodia	South-Eastern Asia	0.2593	0.0507	0.2486	0.4785
191	Central African Republic	Central Africa	0.0789	0.0000	0.0381	0.1985
188	Chad	Central Africa	0.1256	0.1377	0.0476	0.1917
176	Comoros	Eastern Africa	0.2155	0.0507	0.1073	0.4885
180	Democratic Republic of the Congo	Central Africa	0.1876	0.0870	0.0788	0.3970
187	Djibouti	Eastern Africa	0.1337	0.0217	0.0698	0.3095
165	Equatorial Guinea	Central Africa	0.2403	0.0797	0.1237	0.5174
190	Eritrea	Eastern Africa	0.0902	0.0217	0.0000	0.2487
157	Ethiopia	Eastern Africa	0.2666	0.5290	0.0495	0.2212
167	Gambia	West Africa	0.2396	0.1957	0.1959	0.3274
189	Guinea	West Africa	0.1226	0.0870	0.0906	0.1903
181	Guinea-Bissau	West Africa	0.1818	0.1087	0.0828	0.3538
178	Haiti	Caribbean	0.1931	0.1667	0.1004	0.3124
145	Kiribati	Oceania	0.3122	0.2101	0.0665	0.6599
148	Lao People's Democratic Republic	South-Eastern Asia	0.3090	0.2826	0.1537	0.4907
154	Lesotho	Southern Africa	0.2770	0.1377	0.1787	0.5147
170	Liberia	West Africa	0.2338	0.2391	0.1041	0.3581
163	Madagascar	Eastern Africa	0.2416	0.2246	0.0514	0.4488
166	Malawi	Eastern Africa	0.2398	0.2174	0.0485	0.4535
182	Mali	West Africa	0.1817	0.0942	0.2149	0.2358
184	Mauritania	West Africa	0.1734	0.0652	0.1536	0.3015
172	Mozambique	Eastern Africa	0.2305	0.2029	0.0993	0.3893
169	Myanmar	South-Eastern Asia	0.2362	0.1594	0.0655	0.4837
135	Nepal	Southern Asia	0.3458	0.3986	0.1675	0.4714
192	Niger	West Africa	0.0593	0.0725	0.0557	0.0498
138	Rwanda	Eastern Africa	0.3390	0.4565	0.1084	0.4522
168	Sao Tome and Principe	Central Africa	0.2390	0.0435	0.1547	0.5188
144	Senegal	West Africa	0.3250	0.3768	0.1958	0.4025
186	Sierra Leone	West Africa	0.1594	0.1159	0.1216	0.2407
164	Solomon Islands	Oceania	0.2406	0.1667	0.1150	0.4402
193	Somalia	Eastern Africa	0.0270	0.0145	0.0665	0.0000
183	South Sudan	Northern Africa	0.1791	0.1232	0.0534	0.3607
161	Sudan	Northern Africa	0.2539	0.2174	0.1861	0.3581
160	Timor-Leste	South-Eastern Asia	0.2582	0.2174	0.0728	0.4843
147	Togo	West Africa	0.3096	0.3188	0.1044	0.5056

Table 9. E-Government Development Index (EGDI) of Least Developed Countries (LDCs) (continued)

Rank	Country	Sub-region	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
151	Tuvalu	Oceania	0.2950	0.0217	0.1981	0.6651
128	Uganda	Eastern Africa	0.3599	0.5000	0.1129	0.4668
130	United Republic of Tanzania	Eastern Africa	0.3533	0.5725	0.0900	0.3974
149	Vanuatu	Oceania	0.3078	0.1667	0.1684	0.5884
174	Yemen	Western Asia	0.2248	0.1449	0.1465	0.3829
132	Zambia	Eastern Africa	0.3507	0.3696	0.1182	0.5643
LDCs Average			0.2350	0.2030	0.1145	0.3875

Table 10. E-Government Development Index (EGDI) of Small Island Developing States (SIDS)

Rank	Country	Sub-Region	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
100	Antigua and Barbuda	Caribbean	0.4892	0.1812	0.5412	0.7453
93	Bahamas	Caribbean	0.5108	0.4275	0.3842	0.7207
54	Barbados	Caribbean	0.6310	0.4420	0.6397	0.8113
122	Belize	Central America	0.3825	0.3188	0.1834	0.6454
103	Cape Verde	West Africa	0.4742	0.4565	0.3629	0.6031
176	Comoros	Eastern Africa	0.2155	0.0507	0.1073	0.4885
131	Cuba	Caribbean	0.3522	0.1957	0.1103	0.7507
109	Dominica	Caribbean	0.4577	0.3043	0.4305	0.6384
98	Dominican Republica	Caribbean	0.4914	0.5072	0.2992	0.6676
96	Fiji	Oceania	0.4989	0.4130	0.3326	0.7509
88	Grenada	Caribbean	0.5168	0.3696	0.3988	0.7820
181	Guinea-Bissau	West Africa	0.1818	0.1087	0.0828	0.3538
126	Guyana	South America	0.3651	0.2826	0.2432	0.5694
178	Haiti	Caribbean	0.1931	0.1667	0.1004	0.3124
112	Jamaica	Caribbean	0.4534	0.3551	0.3193	0.6859
145	Kiribati	Oceania	0.3122	0.2101	0.0665	0.6599
117	Maldives	Southern Asia	0.4330	0.2319	0.4370	0.6301
156	Marshall Islands	Oceania	0.2695	0.0290	0.0849	0.6947
58	Mauritius	Eastern Africa	0.6231	0.7029	0.4596	0.7067
146	Micronesia (Federated States of)	Oceania	0.3103	0.1449	0.1197	0.6663
152	Nauru	Oceania	0.2868	0.0942	0.2448	0.5214
111	Palau	Oceania	0.4546	0.1087	0.3684	0.8867
179	Papua New Guinea	Oceania	0.1882	0.1667	0.0739	0.3240
94	Saint Kitts and Nevis	Caribbean	0.5034	0.2826	0.5301	0.6976
114	Saint Lucia	Caribbean	0.4531	0.2754	0.4094	0.6744
115	Saint Vincent and the Grenadines	Caribbean	0.4494	0.2971	0.3756	0.6754
121	Samoa	Oceania	0.4019	0.3406	0.1576	0.7076
168	Sao Tome and Principe	Central Africa	0.2390	0.0435	0.1547	0.5188
86	Seychelles	Eastern Africa	0.5181	0.4058	0.4624	0.6861
4	Singapore	South-Eastern Asia	0.8828	0.9710	0.8414	0.8360
164	Solomon Islands	Oceania	0.2406	0.1667	0.1150	0.4402
110	Suriname	South America	0.4546	0.2971	0.4116	0.6551
160	Timor-Leste	South-Eastern Asia	0.2582	0.2174	0.0728	0.4843
105	Tonga	Oceania	0.4700	0.3696	0.2302	0.8102
70	Trinidad and Tobago	Caribbean	0.5780	0.5290	0.4973	0.7077
151	Tuvalu	Oceania	0.2950	0.0217	0.1981	0.6651
149	Vanuatu	Oceania	0.3078	0.1667	0.1684	0.5884
SIDS Average			0.4093	0.2879	0.2977	0.6422

Table 11. E-Government Development Index (EGDI) of Landlocked Developing Countries (LLDCs)

Rank	Country	Sub-Region	EGDI	Online Service Component	Telecomm. Infrastructure Component	Human Capital Component
171	Afghanistan	Southern Asia	0.2313	0.3043	0.1066	0.2830
87	Armenia	Western Asia	0.5179	0.4275	0.3922	0.7338
56	Azerbaijan	Western Asia	0.6274	0.6812	0.4852	0.7158
133	Bhutan	Southern Asia	0.3506	0.3188	0.2192	0.5139
101	Bolivia	South America	0.4821	0.4928	0.2532	0.7004
113	Botswana	Southern Africa	0.4531	0.2826	0.4215	0.6553
185	Burkina Faso	West Africa	0.1598	0.1884	0.1232	0.1677
173	Burundi	Eastern Africa	0.2277	0.1522	0.0331	0.4979
191	Central African Republic	Central Africa	0.0789	0.0000	0.0381	0.1985
188	Chad	Central Africa	0.1256	0.1377	0.0476	0.1917
157	Ethiopia	Eastern Africa	0.2666	0.5290	0.0495	0.2212
33	Kazakhstan	Central Asia	0.7250	0.7681	0.5668	0.8401
97	Kyrgyzstan	Central Asia	0.4969	0.4275	0.3123	0.7508
148	Lao People's Democratic Republic	South-Eastern Asia	0.3090	0.2826	0.1537	0.4907
154	Lesotho	Southern Africa	0.2770	0.1377	0.1787	0.5147
166	Malawi	Eastern Africa	0.2398	0.2174	0.0485	0.4535
182	Mali	West Africa	0.1817	0.0942	0.2149	0.2358
84	Mongolia	Eastern Asia	0.5194	0.5145	0.2841	0.7597
135	Nepal	Southern Asia	0.3458	0.3986	0.1675	0.4714
192	Niger	West Africa	0.0593	0.0725	0.0557	0.0498
95	Paraguay	South America	0.4989	0.6014	0.2544	0.6409
65	Republic of Moldova	Eastern Europe	0.5994	0.5942	0.4850	0.7191
138	Rwanda	Eastern Africa	0.3390	0.4565	0.1084	0.4522
183	South Sudan	Northern Africa	0.1791	0.1232	0.0534	0.3607
136	Swaziland	Southern Africa	0.3412	0.2754	0.1601	0.5882
139	Tajikistan	Central Asia	0.3366	0.1232	0.1866	0.7001
69	The former Yugoslav Republic of Macedonia	Southern Europe	0.5885	0.6087	0.4693	0.6877
140	Turkmenistan	Central Asia	0.3337	0.0870	0.2559	0.6583
128	Uganda	Eastern Africa	0.3599	0.5000	0.1129	0.4668
80	Uzbekistan	Central Asia	0.5434	0.6884	0.2463	0.6954
132	Zambia	Eastern Africa	0.3507	0.3696	0.1182	0.5643
134	Zimbabwe	Eastern Africa	0.3472	0.2609	0.2167	0.5641
LLDCs Average			0.3591	0.3474	0.2131	0.5170

Table 12. E-Participation Index (EPI) and its utilisation by stages

Rank	Country	EPI	Total %	Stage 1 %	Stage 2%	Stage 3%
104	Afghanistan	0.4237	43.3%	61.8%	26.3%	0.0%
55	Albania	0.6441	65.0%	73.5%	68.4%	14.3%
167	Algeria	0.1186	13.3%	17.6%	10.5%	0.0%
101	Andorra	0.4407	45.0%	64.7%	26.3%	0.0%
101	Angola	0.4407	45.0%	70.6%	15.8%	0.0%
157	Antigua and Barbuda	0.1695	18.3%	26.5%	10.5%	0.0%
60	Argentina	0.6271	63.3%	88.2%	42.1%	0.0%
84	Armenia	0.5254	53.3%	70.6%	42.1%	0.0%
2	Australia	0.9831	98.3%	100.0%	100.0%	85.7%
14	Austria	0.8814	88.3%	94.1%	84.2%	71.4%
47	Azerbaijan	0.6780	68.3%	79.4%	73.7%	0.0%
122	Bahamas	0.3390	35.0%	47.1%	21.1%	14.3%
32	Bahrain	0.7458	75.0%	85.3%	73.7%	28.6%
84	Bangladesh	0.5254	53.3%	73.5%	36.8%	0.0%
104	Barbados	0.4237	43.3%	50.0%	42.1%	14.3%
76	Belarus	0.5593	56.7%	61.8%	68.4%	0.0%
55	Belgium	0.6441	65.0%	85.3%	52.6%	0.0%
138	Belize	0.2542	26.7%	38.2%	15.8%	0.0%
157	Benin	0.1695	18.3%	23.5%	15.8%	0.0%
118	Bhutan	0.3559	36.7%	47.1%	31.6%	0.0%
72	Bolivia	0.5763	58.3%	76.5%	47.4%	0.0%
89	Bosnia and Herzegovina	0.5085	51.7%	70.6%	36.8%	0.0%
127	Botswana	0.2881	30.0%	38.2%	21.1%	14.3%
37	Brazil	0.7288	73.3%	85.3%	78.9%	0.0%
114	Brunei	0.3729	38.3%	50.0%	31.6%	0.0%
43	Bulgaria	0.6949	70.0%	76.5%	78.9%	14.3%
143	Burkina Faso	0.2373	25.0%	38.2%	10.5%	0.0%
161	Burundi	0.1525	16.7%	23.5%	5.3%	14.3%
179	Cambodia	0.0678	8.3%	14.7%	0.0%	0.0%
157	Cameroon	0.1695	18.3%	23.5%	15.8%	0.0%
8	Canada	0.9153	91.7%	97.1%	84.2%	85.7%
97	Cape Verde	0.4746	48.3%	67.6%	31.6%	0.0%
191	Central African Republic	0.0000	1.7%	2.9%	0.0%	0.0%
161	Chad	0.1525	16.7%	26.5%	5.3%	0.0%
32	Chile	0.7458	75.0%	82.4%	78.9%	28.6%
22	China	0.8136	81.7%	94.1%	84.2%	14.3%
27	Colombia	0.7627	76.7%	85.3%	78.9%	28.6%
188	Comoros	0.0169	3.3%	2.9%	5.3%	0.0%
173	Congo, Republic of	0.0847	10.0%	11.8%	10.5%	0.0%
55	Costa Rica	0.6441	65.0%	70.6%	78.9%	0.0%
161	Cote d'Ivoire	0.1525	16.7%	20.6%	15.8%	0.0%
25	Croatia	0.7797	78.3%	73.5%	89.5%	71.4%
124	Cuba	0.3220	33.3%	55.9%	5.3%	0.0%
84	Cyprus	0.5254	53.3%	58.8%	57.9%	14.3%
76	Czech Republic	0.5593	56.7%	73.5%	42.1%	14.3%

Table 12. E-Participation Index (EPI) and its utilisation by stages (continued)

Rank	Country	EPI	Total %	Stage 1 %	Stage 2%	Stage 3%
188	Democratic People's Republic of Korea	0.0169	3.3%	5.9%	0.0%	0.0%
173	Democratic Republic of the Congo	0.0847	10.0%	14.7%	5.3%	0.0%
22	Denmark	0.8136	81.7%	94.1%	63.2%	71.4%
191	Djibouti	0.0000	1.7%	2.9%	0.0%	0.0%
156	Dominica	0.1864	20.0%	29.4%	10.5%	0.0%
91	Dominican Republic	0.4915	50.0%	70.6%	31.6%	0.0%
72	Ecuador	0.5763	58.3%	70.6%	57.9%	0.0%
107	Egypt	0.4068	41.7%	55.9%	31.6%	0.0%
76	El Salvador	0.5593	56.7%	67.6%	57.9%	0.0%
173	Equatorial Guinea	0.0847	10.0%	17.6%	0.0%	0.0%
188	Eritrea	0.0169	3.3%	5.9%	0.0%	0.0%
22	Estonia	0.8136	81.7%	94.1%	89.5%	0.0%
91	Ethiopia	0.4915	50.0%	61.8%	47.4%	0.0%
127	Fiji	0.2881	30.0%	38.2%	21.1%	14.3%
8	Finland	0.9153	91.7%	97.1%	89.5%	71.4%
12	France	0.8983	90.0%	100.0%	84.2%	57.1%
179	Gabon	0.0678	8.3%	11.8%	5.3%	0.0%
149	Gambia	0.2034	21.7%	32.4%	10.5%	0.0%
76	Georgia	0.5593	56.7%	73.5%	47.4%	0.0%
27	Germany	0.7627	76.7%	91.2%	78.9%	0.0%
98	Ghana	0.4576	46.7%	55.9%	47.4%	0.0%
65	Greece	0.6102	61.7%	58.8%	78.9%	28.6%
124	Grenada	0.3220	33.3%	35.3%	36.8%	14.3%
60	Guatemala	0.6271	63.3%	76.5%	63.2%	0.0%
173	Guinea	0.0847	10.0%	11.8%	10.5%	0.0%
157	Guinea-Bissau	0.1695	18.3%	29.4%	5.3%	0.0%
138	Guyana	0.2542	26.7%	29.4%	26.3%	14.3%
164	Haiti	0.1356	15.0%	17.6%	15.8%	0.0%
111	Honduras	0.3898	40.0%	47.1%	42.1%	0.0%
91	Hungary	0.4915	50.0%	67.6%	36.8%	0.0%
50	Iceland	0.6610	66.7%	79.4%	68.4%	0.0%
27	India	0.7627	76.7%	79.4%	94.7%	14.3%
114	Indonesia	0.3729	38.3%	41.2%	47.4%	0.0%
149	Iran (Islamic Rep. of)	0.2034	21.7%	29.4%	15.8%	0.0%
104	Iraq	0.4237	43.3%	61.8%	26.3%	0.0%
39	Ireland	0.7119	71.7%	88.2%	68.4%	0.0%
17	Israel	0.8305	83.3%	91.2%	89.5%	28.6%
8	Italy	0.9153	91.7%	94.1%	94.7%	71.4%
133	Jamaica	0.2712	28.3%	35.3%	26.3%	0.0%
2	Japan	0.9831	98.3%	100.0%	94.7%	100.0%
98	Jordan	0.4576	46.7%	55.9%	47.4%	0.0%
67	Kazakhstan	0.5932	60.0%	82.4%	42.1%	0.0%
84	Kenya	0.5254	53.3%	70.6%	42.1%	0.0%
138	Kiribati	0.2542	26.7%	35.3%	21.1%	0.0%
55	Kuwait	0.6441	65.0%	82.4%	57.9%	0.0%

Table 12. E-Participation Index (EPI) and its utilisation by stages (continued)

Rank	Country	EPI	Total %	Stage 1 %	Stage 2%	Stage 3%
67	Kyrgyzstan	0.5932	60.0%	58.8%	68.4%	42.9%
133	Lao	0.2712	28.3%	35.3%	26.3%	0.0%
84	Latvia	0.5254	53.3%	58.8%	57.9%	14.3%
91	Lebanon	0.4915	50.0%	70.6%	31.6%	0.0%
167	Lesotho	0.1186	13.3%	17.6%	10.5%	0.0%
127	Liberia	0.2881	30.0%	38.2%	26.3%	0.0%
170	Libya	0.1017	11.7%	17.6%	5.3%	0.0%
60	Liechtenstein	0.6271	63.3%	85.3%	47.4%	0.0%
17	Lithuania	0.8305	83.3%	91.2%	89.5%	28.6%
43	Luxembourg	0.6949	70.0%	82.4%	63.2%	28.6%
149	Madagascar	0.2034	21.7%	26.5%	21.1%	0.0%
127	Malawi	0.2881	30.0%	47.1%	10.5%	0.0%
47	Malaysia	0.6780	68.3%	79.4%	73.7%	0.0%
146	Maldives	0.2203	23.3%	29.4%	21.1%	0.0%
179	Mali	0.0678	8.3%	14.7%	0.0%	0.0%
25	Malta	0.7797	78.3%	61.8%	100.0%	100.0%
184	Marshall Islands	0.0508	6.7%	8.8%	5.3%	0.0%
184	Mauritania	0.0508	6.7%	8.8%	5.3%	0.0%
50	Mauritius	0.6610	66.7%	91.2%	47.4%	0.0%
14	Mexico	0.8814	88.3%	97.1%	94.7%	28.6%
146	Micronesia (Federated States of)	0.2203	23.3%	41.2%	0.0%	0.0%
127	Monaco	0.2881	30.0%	41.2%	21.1%	0.0%
39	Mongolia	0.7119	71.7%	70.6%	89.5%	28.6%
17	Montenegro	0.8305	83.3%	85.3%	84.2%	71.4%
17	Morocco	0.8305	83.3%	85.3%	100.0%	28.6%
149	Mozambique	0.2034	21.7%	23.5%	26.3%	0.0%
170	Myanmar (ex-Birma)	0.1017	11.7%	11.8%	15.8%	0.0%
143	Namibia	0.2373	25.0%	38.2%	10.5%	0.0%
173	Nauru	0.0847	10.0%	14.7%	5.3%	0.0%
89	Nepal	0.5085	51.7%	58.8%	57.9%	0.0%
5	Netherlands	0.9492	95.0%	97.1%	94.7%	85.7%
5	New Zealand	0.9492	95.0%	97.1%	94.7%	85.7%
107	Nicaragua	0.4068	41.7%	52.9%	36.8%	0.0%
173	Niger	0.0847	10.0%	14.7%	5.3%	0.0%
118	Nigeria	0.3559	36.7%	41.2%	42.1%	0.0%
27	Norway	0.7627	76.7%	88.2%	73.7%	28.6%
76	Oman	0.5593	56.7%	73.5%	47.4%	0.0%
114	Pakistan	0.3729	38.3%	52.9%	26.3%	0.0%
186	Palau	0.0339	5.0%	5.9%	5.3%	0.0%
114	Panama	0.3729	38.3%	50.0%	26.3%	14.3%
149	Papau New Guinea	0.2034	21.7%	26.5%	21.1%	0.0%
72	Paraguay	0.5763	58.3%	70.6%	57.9%	0.0%
82	Peru	0.5424	55.0%	73.5%	42.1%	0.0%
67	Philippines	0.5932	60.0%	67.6%	57.9%	28.6%
14	Poland	0.8814	88.3%	91.2%	89.5%	71.4%

Table 12. E-Participation Index (EPI) and its utilisation by stages (continued)

Rank	Country	EPI	Total %	Stage 1 %	Stage 2%	Stage 3%
50	Portugal	0.6610	66.7%	85.3%	57.9%	0.0%
55	Qatar	0.6441	65.0%	67.6%	73.7%	28.6%
4	Republic of Korea	0.9661	96.7%	97.1%	100.0%	85.7%
50	Republic of Moldova	0.6610	66.7%	73.5%	73.7%	14.3%
60	Romania	0.6271	63.3%	70.6%	57.9%	42.9%
32	Russia	0.7458	75.0%	91.2%	63.2%	28.6%
91	Rwanda	0.4915	50.0%	67.6%	36.8%	0.0%
133	Saint Kitts and Nevis	0.2712	28.3%	35.3%	26.3%	0.0%
143	Saint Lucia	0.2373	25.0%	29.4%	26.3%	0.0%
133	Saint Vincent and the Grenadines	0.2712	28.3%	26.5%	42.1%	0.0%
126	Samoa	0.3051	31.7%	35.3%	26.3%	28.6%
164	San Marino	0.1356	15.0%	23.5%	5.3%	0.0%
179	São Tomé and Príncipe	0.0678	8.3%	14.7%	0.0%	0.0%
39	Saudi Arabia	0.7119	71.7%	79.4%	73.7%	28.6%
111	Senegal	0.3898	40.0%	52.9%	31.6%	0.0%
17	Serbia	0.8305	83.3%	91.2%	78.9%	57.1%
107	Seychelles	0.4068	41.7%	50.0%	36.8%	14.3%
167	Sierra Leone	0.1186	13.3%	20.6%	5.3%	0.0%
8	Singapore	0.9153	91.7%	94.1%	100.0%	57.1%
82	Slovakia	0.5424	55.0%	76.5%	36.8%	0.0%
37	Slovenia	0.7288	73.3%	94.1%	63.2%	0.0%
146	Solomon Islands	0.2203	23.3%	29.4%	21.1%	0.0%
186	Somalia	0.0339	5.0%	5.9%	5.3%	0.0%
76	South Africa	0.5593	56.7%	61.8%	68.4%	0.0%
170	South Sudan	0.1017	11.7%	17.6%	5.3%	0.0%
7	Spain	0.9322	93.3%	100.0%	94.7%	57.1%
50	Sri Lanka	0.6610	66.7%	79.4%	63.2%	14.3%
138	Sudan	0.2542	26.7%	41.2%	10.5%	0.0%
122	Suriname	0.3390	35.0%	50.0%	21.1%	0.0%
138	Swaziland	0.2542	26.7%	35.3%	21.1%	0.0%
27	Sweden	0.7627	76.7%	97.1%	68.4%	0.0%
72	Switzerland	0.5763	58.3%	70.6%	52.6%	14.3%
98	Syria	0.4576	46.7%	64.7%	31.6%	0.0%
149	Tajikistan	0.2034	21.7%	29.4%	15.8%	0.0%
67	Thailand	0.5932	60.0%	73.5%	57.9%	0.0%
65	The former Yugoslav Republic of Macedonia	0.6102	61.7%	73.5%	63.2%	0.0%
133	Timor-Leste	0.2712	28.3%	41.2%	15.8%	0.0%
111	Togo	0.3898	40.0%	52.9%	31.6%	0.0%
118	Tonga	0.3559	36.7%	50.0%	26.3%	0.0%
101	Trinidad and Tobago	0.4407	45.0%	55.9%	42.1%	0.0%
43	Tunisia	0.6949	70.0%	88.2%	63.2%	0.0%
60	Turkey	0.6271	63.3%	73.5%	68.4%	0.0%
179	Turkmenistan	0.0678	8.3%	14.7%	0.0%	0.0%
191	Tuvalu	0.0000	1.7%	2.9%	0.0%	0.0%
91	Uganda	0.4915	50.0%	73.5%	26.3%	0.0%

Table 12. E-Participation Index (EPI) and its utilisation by stages (continued)

Rank	Country	EPI	Total %	Stage 1 %	Stage 2%	Stage 3%
32	Ukraine	0.7458	75.0%	76.5%	84.2%	42.9%
32	United Arab Emirates	0.7458	75.0%	91.2%	73.7%	0.0%
1	United Kingdom	1.0000	100.0%	100.0%	100.0%	100.0%
67	United Republic of Tanzania	0.5932	60.0%	67.6%	63.2%	14.3%
12	United States	0.8983	90.0%	97.1%	100.0%	28.6%
39	Uruguay	0.7119	71.7%	91.2%	57.9%	14.3%
47	Uzbekistan	0.6780	68.3%	88.2%	57.9%	0.0%
149	Vanuatu	0.2034	21.7%	29.4%	15.8%	0.0%
107	Venezuela	0.4068	41.7%	44.1%	52.6%	0.0%
43	Vietnam	0.6949	70.0%	64.7%	68.4%	100.0%
164	Yemen	0.1356	15.0%	20.6%	10.5%	0.0%
118	Zambia	0.3559	36.7%	52.9%	15.8%	14.3%
127	Zimbabwe	0.2881	30.0%	47.1%	10.5%	0.0%
Global Average		0.4625	47.1%	56.4%	43.1%	12.9%

Table 13. Regional and Economic Groupings for E-Participation Index (EPI)

	EPI	Total	Stage 1	Stage 2	Stage 3
Small island Developing States	0.2868	29.90%	38.30%	23.80%	5.30%
Land Locked Developing Countries	0.3718	38.20%	49.10%	31.40%	4.00%
Least Developed Countries	0.2161	22.90%	31.30%	16.00%	0.90%
High Income	0.6952	70%	79.40%	67.50%	31.70%
Upper Middle Income	0.4440	45.30%	55.60%	41.10%	6.90%
Lower Middle Income	0.3943	40.40%	49.30%	36.80%	7.10%
Low Income	0.2227	23.60%	31.90%	17.10%	0.80%
Africa	0.2599	27.20%	36.20%	20.60%	1.90%
Americas	0.4765	48.50%	58.70%	45.10%	8.20%
Asia	0.5182	52.60%	62.30%	49.90%	13.10%
Europe	0.6985	70.30%	80.10%	67.90%	29.60%
Oceania	0.2966	30.80%	36.80%	25.90%	15.30%
World	0.4625	47.10%	56.40%	43.10%	12.90%

Table 14. Telecommunication Infrastructure Index (TII) and its components

Country	TII	Percentage of Individuals using the Internet	Fixed-telephone subscriptions per 100 inhabitants	Mobile-cellular telephone subscriptions per 100 inhabitants	Fixed (wired)-broadband subscriptions per 100 inhabitants	Wireless broadband subscriptions per 100 inhabitants
Afghanistan	0.1066	6.39	0.33	74.88	0.00	1.20
Albania	0.3530	60.10	7.76	105.47	6.57	28.20
Algeria	0.1934	18.09	7.75	93.31	4.01	0.00
Andorra	0.6855	95.90	47.71	82.64	35.89	52.30
Angola	0.1441	21.26	1.27	63.48	0.41	12.50
Antigua & Barbuda	0.5412	64.00	35.64	120.02	15.07	48.90
Argentina	0.5031	64.70	22.58	158.74	14.69	19.80
Armenia	0.3922	46.30	18.92	115.92	9.13	31.30
Australia	0.7646	84.56	38.89	131.23	25.76	111.10
Austria	0.7098	81.00	38.31	151.91	27.54	64.50
Azerbaijan	0.4852	61.00	18.87	110.91	19.83	45.10
Bahamas	0.3842	76.92	35.99	71.44	3.61	12.90
Bahrain	0.7762	91.00	21.18	173.27	21.39	119.00
Bangladesh	0.1193	9.60	0.69	75.92	1.19	0.50
Barbados	0.6397	76.67	52.92	106.78	26.97	41.50
Belarus	0.6304	59.02	48.50	122.50	28.84	46.00
Belgium	0.6808	85.00	42.12	114.27	35.99	46.00
Belize	0.1834	38.70	6.68	50.71	2.91	10.20
Benin	0.1471	5.30	1.85	101.71	0.40	0.40
Bhutan	0.2192	34.37	3.11	82.07	3.26	15.60
Bolivia (Plurinational State of)	0.2532	39.02	8.08	96.34	1.59	14.00
Bosnia and Herzegovina	0.4047	60.80	22.20	91.28	14.15	23.90
Botswana	0.4215	18.50	8.30	167.30	1.63	74.30
Brazil	0.5025	57.60	21.84	138.95	11.46	52.00
Brunei Darussalam	0.3512	68.77	11.40	110.06	7.15	6.50
Bulgaria	0.5602	55.49	25.35	137.71	20.74	58.60
Burkina Faso	0.1232	9.40	0.72	71.74	0.03	9.00
Burundi	0.0331	1.38	0.21	30.46	0.02	0.50
Cambodia	0.2486	9.00	2.84	155.11	0.21	10.10
Cameroon	0.1310	11.00	4.61	75.69	0.07	1.70
Canada	0.6717	87.12	46.65	82.98	34.98	57.90
Cape Verde	0.3629	40.26	11.62	121.79	3.79	42.60
Central African Rep.	0.0381	4.03	0.02	31.36	0.01	0.10
Chad	0.0476	2.50	0.18	39.75	0.08	0.00
Chile	0.4970	72.35	19.17	133.26	14.08	35.60
China	0.3673	49.30	17.90	92.27	14.38	21.40
Colombia	0.3813	52.57	14.68	113.08	10.27	25.10
Comoros	0.1073	6.98	3.12	50.90	0.21	14.50

Table 14. Telecommunication Infrastructure Index (TII) and its components (continued)

Country	TII	Percentage of Individuals using the Internet	Fixed-telephone subscriptions per 100 inhabitants	Mobile-cellular telephone subscriptions per 100 inhabitants	Fixed (wired)-broadband subscriptions per 100 inhabitants	Wireless broadband subscriptions per 100 inhabitants
Congo	0.1713	7.11	0.36	108.15	0.01	10.50
Costa Rica	0.5129	49.41	17.85	143.83	10.45	72.30
Côte d'Ivoire	0.1711	14.60	1.17	106.25	0.28	1.70
Croatia	0.5974	68.57	36.72	104.43	23.04	66.10
Cuba	0.1103	30.00	11.23	22.48	0.07	0.00
Cyprus	0.4923	69.33	28.44	96.34	21.13	31.80
Czech Republic	0.5952	79.71	17.57	130.03	27.64	54.40
Demo. People's Republic of Korea	0.0363	0.00	4.71	11.19	0.00	11.20
Democratic Republic of Congo	0.0788	3.00	0.00	53.49	0.00	6.70
Denmark	0.8247	95.99	33.32	125.96	41.38	107.50
Djibouti	0.0698	10.71	2.47	32.39	2.27	0.00
Dominica	0.4305	62.86	24.33	127.45	15.76	0.00
Dominican Rep.	0.2992	49.58	11.65	78.86	5.70	25.80
Ecuador	0.3438	43.00	15.28	103.90	7.81	26.70
Egypt	0.3025	31.70	7.57	114.31	3.68	31.10
El Salvador	0.3265	29.70	14.85	144.03	5.00	7.50
Equatorial Guinea	0.1237	18.86	1.94	66.39	0.50	0.00
Eritrea	0.0000	0.99	0.98	6.39	0.00	0.00
Estonia	0.7329	84.24	31.73	160.69	27.37	78.90
Ethiopia	0.0495	2.90	0.85	31.59	0.49	4.90
Fiji	0.3326	41.80	8.43	98.78	1.40	53.50
Finland	0.7590	92.38	11.74	139.66	32.30	123.60
France	0.7502	83.75	60.03	100.36	40.18	55.90
Gabon	0.3068	9.81	1.01	210.37	0.63	0.50
Gambia	0.1959	15.56	2.93	119.63	0.12	1.40
Georgia	0.4184	48.90	25.39	124.94	12.15	17.40
Germany	0.7342	86.19	56.89	120.42	35.78	44.80
Ghana	0.2594	18.90	0.98	114.82	0.27	40.20
Greece	0.6032	63.21	46.90	114.96	28.36	36.10
Grenada	0.3988	37.38	26.90	126.53	17.87	0.80
Guatemala	0.2358	23.40	10.83	106.63	2.41	6.20
Guinea	0.0906	1.72	0.00	72.10	0.01	0.00
Guinea-Bissau	0.0828	3.32	0.29	63.48	0.08	0.00
Guyana	0.2432	37.35	19.87	70.54	5.63	0.10
Haiti	0.1004	11.40	0.39	64.71	0.00	0.20
Honduras	0.2008	19.08	6.45	93.52	1.39	11.70
Hungary	0.5615	76.13	30.32	118.05	27.35	27.50
Iceland	0.7814	98.16	51.49	111.08	35.92	74.70
India	0.1430	18.00	2.13	74.48	1.24	3.20
Indonesia	0.3016	17.14	11.72	126.18	1.19	36.00
Iran (Islamic Republic of)	0.3514	39.35	38.98	87.79	9.46	2.50

Table 14. Telecommunication Infrastructure Index (TII) and its components (continued)

Country	TII	Percentage of Individuals using the Internet	Fixed-telephone subscriptions per 100 inhabitants	Mobile-cellular telephone subscriptions per 100 inhabitants	Fixed (wired)-broadband subscriptions per 100 inhabitants	Wireless broadband subscriptions per 100 inhabitants
Iraq	0.1647	11.30	5.60	94.91	0.01	3.60
Ireland	0.6602	79.69	43.24	104.26	26.91	68.60
Israel	0.6175	71.45	37.07	121.45	26.18	52.50
Italy	0.6469	61.96	33.68	154.25	23.53	65.90
Jamaica	0.3193	40.50	9.06	102.92	5.41	33.10
Japan	0.8277	90.58	50.09	120.23	29.31	120.50
Jordan	0.3458	44.00	5.00	147.80	4.66	17.80
Kazakhstan	0.5668	54.89	26.12	168.62	12.93	56.60
Kenya	0.1808	43.40	0.40	73.84	0.19	3.10
Kiribati	0.0665	12.25	8.85	17.41	1.15	0.00
Kuwait	0.7430	78.70	14.20	218.43	1.38	139.80
Kyrgyzstan	0.3123	28.30	7.88	134.46	4.16	22.70
Lao People's Dem. Rep.	0.1537	14.26	13.36	66.99	0.16	2.40
Latvia	0.5831	75.83	18.96	124.20	24.74	61.20
Lebanon	0.4911	74.70	19.45	88.35	22.80	43.00
Lesotho	0.1787	11.00	2.44	101.90	0.11	11.50
Liberia	0.1041	5.41	0.23	73.35	0.14	1.90
Libya	0.4291	17.76	11.30	161.12	1.00	80.60
Liechtenstein	0.7293	95.21	48.39	104.32	40.33	48.40
Lithuania	0.6262	72.13	19.50	147.04	31.46	53.80
Luxembourg	0.8190	94.67	49.63	148.37	33.27	80.00
Madagascar	0.0514	3.70	1.06	38.22	0.11	0.50
Malawi	0.0485	5.83	0.38	30.50	0.05	3.90
Malaysia	0.4397	67.50	14.61	148.83	10.14	14.10
Maldives	0.4370	49.28	6.11	189.38	5.64	26.20
Mali	0.2149	7.00	1.00	149.02	0.02	1.80
Malta	0.6992	73.17	53.55	126.98	35.23	41.20
Marshall Islands	0.0849	16.80	4.47	29.37	2.60	0.00
Mauritania	0.1536	10.70	1.29	94.20	0.20	5.60
Mauritius	0.4596	41.44	29.80	132.25	14.57	29.20
Mexico	0.3114	44.39	17.04	82.54	11.56	11.50
Micronesia	0.1197	29.65	6.76	30.32	2.98	0.00
Monaco	1.0000	92.40	132.95	88.46	46.76	53.70
Mongolia	0.2841	27.00	7.92	105.06	6.85	24.70
Montenegro	0.5221	61.00	26.49	163.03	15.20	23.10
Morocco	0.3429	56.80	7.43	131.71	2.96	15.00
Mozambique	0.0993	5.94	0.26	69.67	0.05	1.70
Myanmar	0.0655	2.10	0.98	49.47	0.27	1.00
Namibia	0.2669	14.84	7.78	113.76	1.76	34.20
Nauru	0.2448	54.00	0.00	67.78	9.48	9.97
Nepal	0.1675	15.44	2.98	82.49	0.81	13.00
Netherlands	0.7517	93.17	42.41	116.42	41.02	62.30
New Zealand	0.7136	85.50	40.65	112.05	30.45	81.90

Table 14. Telecommunication Infrastructure Index (TII) and its components (continued)

Country	TII	Percentage of Individuals using the Internet	Fixed-telephone subscriptions per 100 inhabitants	Mobile-cellular telephone subscriptions per 100 inhabitants	Fixed (wired)-broadband subscriptions per 100 inhabitants	Wireless broadband subscriptions per 100 inhabitants
Nicaragua	0.2109	17.60	5.51	114.57	2.48	1.30
Niger	0.0557	1.95	0.57	44.44	0.05	0.90
Nigeria	0.1958	42.68	0.10	77.84	0.01	10.10
Norway	0.7276	96.30	22.72	116.51	38.14	86.50
Oman	0.5147	70.22	9.56	157.75	4.51	68.90
Pakistan	0.1299	13.80	2.65	73.33	1.08	0.80
Palau	0.3684	26.97	33.89	90.60	9.36	32.31
Panama	0.4202	44.92	14.99	158.05	7.90	25.20
Papua New Guinea	0.0739	9.38	1.94	44.93	0.18	0.00
Paraguay	0.2544	43.00	5.38	105.60	2.45	5.60
Peru	0.2689	40.20	9.86	102.92	5.74	3.00
Philippines	0.3791	39.69	3.09	111.22	23.22	27.20
Poland	0.5857	66.60	13.18	156.45	23.83	59.50
Portugal	0.5838	64.59	43.25	111.80	26.68	36.70
Qatar	0.6041	91.49	18.41	145.76	9.90	76.80
Republic of Korea	0.8530	84.33	59.54	115.54	38.78	105.30
Republic of Moldova	0.4850	46.60	35.20	108.00	14.71	47.30
Romania	0.4533	54.08	21.26	105.91	18.52	37.70
Russian Federatian	0.6091	70.52	27.67	155.14	17.45	60.20
Rwanda	0.1084	10.60	0.41	64.02	0.11	5.80
Saint Kitts and Nevis	0.5301	65.40	34.86	139.81	23.73	5.50
Saint Lucia	0.4094	51.00	17.88	102.59	15.36	32.70
Saint Vincent and the Grenadines	0.3756	56.48	21.85	105.16	14.92	0.00
Samoa	0.1576	21.20	6.14	55.53	1.05	16.40
San Marino	0.6128	49.60	58.79	118.85	36.98	11.20
Sao Tomé & Principe	0.1547	24.41	3.44	64.94	0.56	9.80
Saudi Arabia	0.5733	63.70	13.36	179.56	10.36	70.60
Senegal	0.1958	17.70	2.14	98.84	0.71	15.30
Serbia	0.5434	53.50	37.33	122.13	15.57	55.70
Seychelles	0.4624	54.26	22.73	162.19	12.68	10.30
Sierra Leone	0.1216	2.10	0.27	76.66	0.00	13.00
Singapore	0.8414	82.00	35.52	158.13	27.79	136.60
Slovakia	0.5504	79.98	16.84	116.94	21.84	54.90
Slovenia	0.5877	71.59	37.08	112.08	26.55	42.10
Solomon Islands	0.1150	9.00	1.31	65.76	0.23	8.00
Somalia	0.0665	1.63	0.53	50.90	0.56	1.00
South Africa	0.3807	49.00	8.10	149.68	3.21	28.70
South Sudan	0.0534	15.90	0.00	24.50	0.00	1.30
Spain	0.6493	76.19	40.56	107.85	27.27	67.20
Sri Lanka	0.2445	25.80	12.49	103.16	2.65	7.80

Table 14. Telecommunication Infrastructure Index (TII) and its components (continued)

Country	TII	Percentage of Individuals using the Internet	Fixed-telephone subscriptions per 100 inhabitants	Mobile-cellular telephone subscriptions per 100 inhabitants	Fixed (wired)-broadband subscriptions per 100 inhabitants	Wireless broadband subscriptions per 100 inhabitants
Sudan	0.1861	24.64	1.08	72.20	0.05	26.80
Suriname	0.4116	40.08	15.61	170.57	8.53	13.10
Swaziland	0.1601	27.10	3.50	72.32	0.40	4.40
Sweden	0.8134	92.52	39.67	127.84	34.19	110.30
Switzerland	0.7980	87.00	53.63	140.54	45.97	44.30
Syrian Arab Republic	0.2087	28.09	18.13	70.95	1.68	3.20
Tajikistan	0.1866	17.49	5.24	95.13	0.07	9.50
Thailand	0.4117	34.89	8.46	144.44	8.21	52.50
The Former Yugoslav Republic of Macedonia	0.4693	68.06	18.62	109.10	16.19	39.40
Timor-Leste	0.0728	1.14	0.26	58.74	0.07	0.60
Togo	0.1044	5.70	0.90	68.97	0.11	4.10
Tonga	0.2302	40.00	11.34	64.28	1.70	19.30
Trinidad & Tobago	0.4973	65.10	21.43	147.34	17.47	20.20
Tunisia	0.3476	46.16	8.54	128.49	4.44	26.10
Turkey	0.3775	51.04	16.52	94.79	11.69	32.30
Turkmenistan	0.2559	12.20	11.77	135.78	0.04	10.90
Tuvalu	0.1981	37.00	15.16	38.41	9.10	0.00
Uganda	0.1129	17.71	0.84	52.43	0.29	8.60
Ukraine	0.3968	43.40	24.64	144.08	8.42	6.70
United Arab Emirates	0.6881	90.40	22.26	178.06	11.51	89.10
United Kingdom of Great Britain and Northern Island	0.8177	91.61	52.35	123.58	37.38	87.20
United Republic of Tanzania	0.0900	4.86	0.30	62.77	0.17	2.70
United States of America	0.7170	87.36	40.12	98.41	30.37	93.60
Uruguay	0.6137	61.46	31.68	160.80	24.58	43.50
Uzbekistan	0.2463	43.55	8.55	73.79	1.33	22.80
Vanuatu	0.1684	18.80	2.22	60.41	1.77	26.20
Venezuela (Bolivarian Republic of)	0.3540	57.00	25.31	98.95	7.82	3.80
Viet Nam	0.3715	48.31	6.01	147.11	6.48	21.80
Yemen	0.1465	22.55	4.68	68.49	1.36	0.30
Zambia	0.1182	17.34	0.76	67.34	0.14	0.70
Zimbabwe	0.2167	19.89	2.26	80.82	1.04	37.80

Note: Last accessed in September 2015

Source: International Telecommunications Union (ITU).

Year: 2014 or most recent data available.

** * 2012

** 0108

*** 2008

**** 2007

***** 2005 "

Table 14. Telecommunication Infrastructure Index (TII) and its components (continued)

TII average	TII	Percentage of Individuals using the Internet	Fixed-telephone subscriptions per 100 inhabitants	Mobile-cellular telephone subscriptions per 100 inhabitants	Fixed(wired)-broadband subscriptions per 100 inhabitants	Wireless broadband subscriptions per 100 inhabitants
Africa	0.1724	16.40	3.33	83.99	1.20	12.02
Americas	0.3844	49.64	19.84	109.86	11.03	21.75
Asia	0.3730	42.95	14.35	114.03	8.68	34.63
Europe	0.6438	75.28	37.68	122.92	28.31	55.68
Oceania	0.2599	34.78	12.86	64.78	6.94	27.59
World	0.3711	43.34	17.35	103.28	11.26	30.16
Small island Developing States	0.3103	39.85	15.29	90.70	8.07	21.61
Land Locked Developing Countries	0.2131	22.84	6.71	85.14	3.06	16.49
Least Developed Countries	0.1145	10.53	1.91	64.60	0.58	5.13
High Income	0.6607	78.77	36.51	126.97	26.78	64.02
Upper Middle Income	0.3734	44.54	16.42	115.59	9.63	25.99
Lower Middle Income	0.2292	27.21	8.32	89.71	3.34	14.03
Low Income	0.1062	7.98	1.08	65.27	0.19	5.08

Table 15. Human Capital Index (HCI) and its components

Country	HCI	Adult Literacy (%)			Gross enrolment ratio (%)			Expected years of schooling			Mean years of schooling		
		Index value	Year	Source	Index value	Year	Source	Index value	Year	Source	Index value	Year	Source
Afghanistan	0.2830	38.16	2015	UNESCO	62.38	2011	UNESCO	9.27	2011	UNESCO	3.20	2012	UNDP
Albania	0.6520	97.62	2015	UNESCO	65.58	2003	UNESCO	10.83	2003	UNESCO	9.26	2011	UNESCO
Algeria	0.6412	80.20	2015	UNESCO	79.19	2011	UNESCO	13.97	2011	UNESCO	7.60	2012	UNDP
Andorra	0.6978	99.00	2014	UNESCO	69.00	2014	UNESCO	11.67	2012	UNDP (HDI)	10.40	2012	UNDP
Angola	0.5015	71.14	2015	UNESCO	73.02	2011	UNESCO	11.32	2011	UNESCO	4.70	2012	UNDP
Antigua and Barbuda	0.7453	98.95	2012	UNESCO	82.03	2012	UNESCO	13.95	2012	UNESCO	8.90	2012	UNDP
Argentina	0.8802	98.09	2015	UNESCO	104.93	2012	UNESCO	17.95	2012	UNESCO	9.79	2003	UNESCO
Armenia	0.7338	99.65	2015	UNESCO	78.22	2009	UNESCO	12.32	2009	UNESCO	10.27	2001	UNESCO
Australia	1.0000	99.00	2014	UNESCO	115.19	2013	UNESCO	20.25	2013	UNESCO	13.18	2012	UNESCO
Austria	0.8396	99.00	2014	UNESCO	94.61	2013	UNESCO	15.90	2013	UNESCO	10.80	2012	UNDP
Azerbaijan	0.7158	99.82	2015	UNESCO	71.11	2012	UNESCO	11.80	2012	UNDP (HDI)	10.85	2009	UNESCO
Bahamas	0.7207	95.80	2014	UNESCO	74.00	2014	UNESCO	12.57	2012	UNDP (HDI)	10.94	2000	UNESCO
Bahrain	0.7178	95.70	2015	UNESCO	78.62	2009	UNESCO	13.13	1999	UNESCO	9.40	2012	UNDP
Bangladesh	0.3973	61.55	2015	UNESCO	59.39	2011	UNESCO	9.98	1999	UNESCO	4.25	2001	UNESCO
Barbados	0.8113	99.70	2014	UNESCO	96.13	2011	UNESCO	15.42	1999	UNESCO	8.99	2000	UNESCO
Belarus	0.8716	99.73	2015	UNESCO	100.09	2013	UNESCO	15.66	2013	UNESCO	11.94	2009	UNESCO
Belgium	0.9712	99.00	2014	UNESCO	117.94	2013	UNESCO	19.80	2013	UNESCO	11.27	2012	UNESCO
Belize	0.6454	70.30	1991	UNESCO	81.46	2013	UNESCO	13.55	2013	UNESCO	10.49	2010	UNESCO
Benin	0.3196	38.45	2015	UNESCO	67.84	2011	UNESCO	11.07	2011	UNESCO	2.73	2002	UNESCO
Bhutan	0.5139	64.89	2015	UNESCO	68.78	2013	UNESCO	12.62	2013	UNESCO	6.60	2005	UNESCO
Bolivia (Plurinational State of)	0.7004	95.65	2015	UNESCO	79.25	2007	UNESCO	13.15	2007	UNESCO	8.15	2012	UNESCO
Bosnia and Herzegovina	0.6815	98.48	2015	UNESCO	71.00	2014	UNESCO	13.60	2012	UNDP (HDI)	7.21	2011	UNESCO
Botswana	0.6553	88.46	2015	UNESCO	73.58	2008	UNESCO	12.49	2008	UNESCO	8.80	2012	UNDP

Table 15. Human Capital Index (HCI) and its components (continued)

Country	HCI	Adult Literacy (%)			Gross enrolment ratio (%)			Expected years of schooling			Mean years of schooling		
		Index value	Year	Source	Index value	Year	Source	Index value	Year	Source	Index value	Year	Source
Brazil	0.6787	92.58	2015	UNESCO	71.00	2014	UNESCO	15.19	2012	UNDP (HDI)	6.99	2011	UNESCO
Brunei Darussalam	0.7310	95.98	2015	UNESCO	80.10	2013	UNESCO	14.35	2013	UNESCO	8.70	2012	UNDP
Bulgaria	0.7875	98.39	2015	UNESCO	87.65	2013	UNESCO	14.80	2013	UNESCO	9.92	2001	UNESCO
Burkina Faso	0.1677	36.02	2015	UNESCO	46.90	2013	UNESCO	7.77	2013	UNESCO	0.56	2007	UNESCO
Burundi	0.4979	85.62	2015	UNESCO	63.84	2013	UNESCO	10.90	2013	UNESCO	2.70	2012	UNDP
Cambodia	0.4785	77.19	2015	UNESCO	63.81	2008	UNESCO	10.90	2008	UNESCO	3.67	2009	UNESCO
Cameroon	0.4794	74.99	2015	UNESCO	61.56	2011	UNESCO	10.40	2011	UNESCO	5.21	2010	UNESCO
Canada	0.8572	99.00	2014	UNESCO	93.04	2000	UNESCO	15.81	2000	UNESCO	12.30	2012	UNDP
Cape Verde	0.6031	87.58	2015	UNESCO	78.73	2013	UNESCO	13.74	2013	UNESCO	3.50	2012	UNDP
Central African Republic	0.1985	36.75	2015	UNESCO	43.42	2012	UNESCO	7.24	2012	UNESCO	3.50	2012	UNDP
Chad	0.1917	40.17	2015	UNESCO	46.80	2011	UNESCO	7.40	2011	UNESCO	1.40	2004	UNESCO
Chile	0.8124	97.51	2015	UNESCO	92.57	2013	UNESCO	15.91	2013	UNESCO	9.79	2010	UNESCO
China	0.6860	96.38	2015	UNESCO	77.25	2013	UNESCO	13.24	2013	UNESCO	7.31	2010	UNESCO
Colombia	0.7000	94.68	2015	UNESCO	84.49	2010	UNESCO	13.55	2010	UNESCO	7.07	2010	UNESCO
Comoros	0.4885	77.76	2015	UNESCO	68.13	2013	UNESCO	11.50	2013	UNESCO	2.80	2012	UNDP
Congo	0.5344	79.31	2015	UNESCO	66.15	2012	UNESCO	11.11	2012	UNESCO	6.10	2012	UNDP
Costa Rica	0.7436	97.76	2015	UNESCO	86.69	2013	UNESCO	13.86	2013	UNESCO	8.37	2012	UNESCO
Côte d'Ivoire	0.2959	43.11	2015	UNESCO	54.22	2013	UNESCO	9.15	2013	UNESCO	4.30	2012	UNDP
Croatia	0.8050	99.27	2015	UNESCO	86.47	2012	UNESCO	14.81	2012	UNESCO	11.03	2011	UNESCO
Cuba	0.7507	99.85	2015	UNESCO	80.26	2013	UNESCO	13.83	2013	UNESCO	9.45	2002	UNESCO
Cyprus	0.7782	99.07	2015	UNESCO	78.42	2011	UNESCO	13.97	2012	UNESCO	11.62	2012	UNESCO
Czech Republic	0.8627	99.00	2014	UNESCO	91.32	2013	UNESCO	16.52	2013	UNESCO	12.26	2012	UNESCO
Democratic People's Republic of Korea	0.7822	100.00	2015	UNESCO	100.00	2014	UNESCO	11.00	2014	UNESCO	10.76	2012	UNDP
Democratic Republic of the Congo	0.3970	63.82	2015	UNESCO	63.69	2013	UNESCO	9.75	2013	UNESCO	3.10	2012	UNDP
Denmark	0.9530	99.00	2014	UNESCO	106.26	2013	UNESCO	19.24	2013	UNESCO	12.73	2008	UNESCO
Djibouti	0.3095	70.30	2014	UNESCO	37.11	2011	UNESCO	6.39	2011	UNESCO	3.80	2012	UNDP

Table 15. Human Capital Index (HCI) and its components (continued)

Country	HCI	Adult Literacy (%)		Gross enrolment ratio (%)		Expected years of schooling		Mean years of schooling	
		Index value	Year	Source	Index value	Year	Source	Index value	Year
Dominica	0.6384	88.00	2014	UNESCO	73.00	2014	UNESCO	12.65	2012
Dominican Republic	0.6676	91.79	2015	UNESCO	77.39	2012	UNESCO	13.08	2012
Ecuador	0.7134	94.46	2015	UNESCO	83.73	2012	UNESCO	14.17	2012
Egypt	0.6048	73.75	2015	UNESCO	82.58	2013	UNESCO	13.91	2013
El Salvador	0.6035	87.99	2015	UNESCO	70.03	2013	UNESCO	12.19	2013
Equatorial Guinea	0.5174	95.26	2015	UNESCO	55.00	2014	UNESCO	8.48	2000
Eritrea	0.2487	73.77	2015	UNESCO	25.0		UNDP	4.10	2012
Estonia	0.8761	99.83	2015	UNESCO	97.72	2013	UNESCO	16.32	2013
Ethiopia	0.2212	49.09	2015	UNESCO	43.07	2005	UNESCO	6.60	2005
Fiji	0.7509	94.40	2014	UNESCO	88.0		UNDP	13.88	2004
Finland	0.9440	99.00	2014	UNESCO	115.32	2013	UNESCO	19.48	2013
France	0.8445	99.00	2014	UNESCO	94.12	2013	UNESCO	15.97	2013
Gabon	0.6162	83.18	2015	UNESCO	76.15	2001	UNESCO	12.30	2012
Gambia	0.3274	55.55	2015	UNESCO	55.94	2010	UNESCO	9.10	2012
Georgia	0.7763	99.76	2015	UNESCO	76.11	2013	UNESCO	13.80	2013
Germany	0.8882	99.00	2014	UNESCO	93.62	2013	UNESCO	16.67	2013
Ghana	0.5458	76.57	2015	UNESCO	67.47	2013	UNESCO	11.72	2013
Greece	0.8901	97.69	2015	UNESCO	108.84	2012	UNESCO	17.63	2012
Grenada	0.7820	96.00	2005	UNDP	91.05	2009	UNESCO	15.80	2009
Guatemala	0.5345	81.55	2015	UNESCO	68.61	2013	UNESCO	10.59	2013
Guinea	0.1903	30.41	2015	UNESCO	52.36	2012	UNESCO	8.70	2012
Guinea-Bissau	0.3538	59.91	2015	UNESCO	62.46	2006	UNESCO	9.00	2012
Guyana	0.5694	88.50	2015	UNESCO	68.11	2012	UNESCO	10.29	2012
Haiti	0.3124	60.73	2015	UNESCO	39.40	2014	UNESCO	7.60	2012

Table 15. Human Capital Index (HCI) and its components (continued)

Country	HCI	Adult Literacy (%)			Gross enrolment ratio (%)			Expected years of schooling			Mean years of schooling		
		Index value	Year	Source	Index value	Year	Source	Index value	Year	Source	Index value	Year	Source
Honduras	0.5709	88.48	2015	UNESCO	69.33	2013	UNESCO	11.10	2013	UNESCO	5.48	2012	UNESCO
Hungary	0.8317	99.05	2015	UNESCO	92.64	2013	UNESCO	15.76	2013	UNESCO	10.76	2005	UNESCO
Iceland	0.8940	99.00	2014	UNESCO	99.38	2012	UNESCO	18.98	2012	UNESCO	10.40	2012	UNDP
India	0.5019	71.24	2015	UNESCO	71.20	2012	UNESCO	11.94	2012	UNESCO	4.40	2012	UNDP
Indonesia	0.6796	93.88	2015	UNESCO	78.87	2012	UNESCO	12.99	2012	UNESCO	7.51	2011	UNESCO
Iran (Islamic Republic of)	0.7101	86.85	2015	UNESCO	86.96	2012	UNESCO	15.09	2012	UNESCO	7.80	2012	UNDP
Iraq	0.4803	79.69	2015	UNESCO	54.48	2000	UNESCO	10.08	2004	UNESCO	5.60	2012	UNDP
Ireland	0.9218	99.00	2014	UNESCO	105.04	2012	UNESCO	18.57	2012	UNESCO	11.60	2012	UNDP
Israel	0.8619	97.76	2011	UNESCO	94.21	2013	UNESCO	15.99	2013	UNESCO	12.54	2012	UNESCO
Italy	0.8126	99.15	2015	UNESCO	88.59	2012	UNESCO	16.04	2012	UNESCO	9.94	2012	UNESCO
Jamaica	0.6859	88.69	2015	UNESCO	79.86	2004	UNESCO	12.49	2004	UNESCO	9.60	2012	UNDP
Japan	0.8274	99.00	2014	UNESCO	89.45	2012	UNESCO	15.33	2012	UNESCO	11.50	2012	UNDP
Jordan	0.7344	95.37	2015	UNESCO	80.17	2012	UNESCO	13.51	2012	UNESCO	9.91	2010	UNESCO
Kazakhstan	0.8401	99.79	2015	UNESCO	92.17	2013	UNESCO	14.94	2013	UNESCO	12.02	2007	UNESCO
Kenya	0.5169	77.97	2015	UNESCO	66.78	2009	UNESCO	10.98	2009	UNESCO	5.33	2010	UNESCO
Kiribati	0.6599	93.00	2014	UNE-Gov Survey	75.14	2008	UNESCO	12.32	2008	UNESCO	7.80	2012	UNDP
Kuwait	0.7287	96.27	2015	UNESCO	85.65	2004	UNESCO	14.64	2004	UNESCO	7.21	2012	UNESCO
Kyrgyzstan	0.7508	99.52	2015	UNESCO	79.14	2013	UNESCO	13.05	2013	UNESCO	10.51	2009	UNESCO
Lao People's Democratic Republic	0.4907	79.86	2015	UNESCO	60.87	2013	UNESCO	10.58	2013	UNESCO	4.60	2012	UNDP
Latvia	0.8512	99.89	2015	UNESCO	90.56	2013	UNESCO	15.58	2013	UNESCO	12.35	2006	UNESCO
Lebanon	0.6882	93.94	2015	UNESCO	77.12	2013	UNESCO	13.75	2013	UNESCO	7.59	2007	UNESCO
Lesotho	0.5147	79.36	2015	UNESCO	65.12	2012	UNESCO	10.69	2006	UNESCO	5.41	2008	UNESCO
Liberia	0.3581	47.60	2015	UNESCO	63.92	2000	UNESCO	10.67	2000	UNESCO	3.90	2012	UNDP
Libya	0.7588	91.02	2015	UNESCO	94.38	2003	UNESCO	16.12	2003	UNESCO	7.50	2012	UNDP
Liechtenstein	0.7978	99.00	2014	UNE-Gov Survey	87.13	2012	UNESCO	15.03	2012	UNESCO	10.30	2012	UNDP
Lithuania	0.8717	99.82	2015	UNESCO	94.41	2013	UNESCO	16.21	2013	UNESCO	12.38	2012	UNESCO

Table 15. Human Capital Index (HCI) and its components (continued)

Country	HCI	Adult Literacy (%)			Gross enrolment ratio (%)			Expected years of schooling			Mean years of schooling		
		Index value	Year	Source	Index value	Year	Source	Index value	Year	Source	Index value	Year	Source
Luxembourg	0.7750	99.00	2014	UNESCO	77.48	2012	UNESCO	13.85	2012	UNESCO	11.71	2007	UNESCO
Madagascar	0.4488	64.66	2015	UNESCO	65.86	2013	UNESCO	10.39	2013	UNESCO	5.20	2012	UNDP
Malawi	0.4535	65.79	2015	UNESCO	69.45	2011	UNESCO	10.75	2011	UNESCO	4.20	2012	UNDP
Malaysia	0.6953	94.64	2015	UNESCO	71.08	2005	UNESCO	12.73	2005	UNESCO	9.96	2010	UNESCO
Maldives	0.6301	99.31	2015	UNESCO	76.76	2003	UNESCO	12.66	2003	UNESCO	3.58	2006	UNESCO
Mali	0.2358	38.70	2015	UNESCO	55.66	2011	UNESCO	8.43	2011	UNESCO	2.04	2011	UNESCO
Malta	0.7310	94.44	2015	UNESCO	76.75	2012	UNESCO	14.16	2012	UNESCO	9.89	2012	UNESCO
Marshall Islands	0.6947	94.00	2014	UN E-Gov Survey	74.62	2002	UNESCO	12.35	2002	UNESCO	9.85	2011	HDI WB=ID
Mauritania	0.3015	52.10	2015	UNESCO	49.91	2013	UNESCO	8.50	2013	UNESCO	3.70	2012	UNDP
Mauritius	0.7067	90.62	2015	UNESCO	85.82	2012	UNESCO	15.58	2012	UNESCO	6.30	2000	UNESCO
Mexico	0.6993	95.14	2015	UNESCO	77.62	2013	UNESCO	13.19	2013	UNESCO	8.47	2012	UNESCO
Micronesia (Federated States of)	0.6663	94.00	2014	UNESCO	75.43	2004	UNESCO	11.41	2012	UNDP (HDI)	8.80	2012	UNDP
Monaco	0.8757	99.00	2014	UN E-Gov Survey	99.00	2014	UNDP HDI	17.50	2011	UNDP (HDI)	10.76	2012	UNDP
Mongolia	0.7597	98.38	2015	UNESCO	79.40	2006	UNESCO	14.59	2010	UNESCO	9.80	2010	UNESCO
Montenegro	0.8165	98.73	2015	UNESCO	88.62	2010	UNESCO	15.18	2010	UNESCO	11.16	2011	UNESCO
Morocco	0.4737	68.49	2015	UNESCO	67.15	2011	UNESCO	11.56	2011	UNESCO	4.40	2012	UNDP
Mozambique	0.3893	58.77	2015	UNESCO	60.33	2013	UNESCO	9.28	2013	UNESCO	4.99	2009	UNESCO
Myanmar	0.4837	93.09	2015	UNESCO	53.00	2007	UNESCO	8.63	2007	UNESCO	4.00	2012	UNDP
Namibia	0.5551	81.94	2015	UNESCO	70.28	2006	UNESCO	11.34	2006	UNESCO	5.77	2001	UNESCO
Nauru	0.5214	92.00	2014	UN E-Gov Survey	56.13	2008	UNESCO	9.35	2010	UNESCO	5.45	2012	UNDP
Nepal	0.4714	63.95	2015	UNESCO	75.45	2013	UNESCO	12.34	2013	UNESCO	3.20	2012	UNDP
Netherlands	0.9183	99.00	2014	UNESCO	105.75	2012	UNESCO	17.92	2012	UNESCO	11.89	2012	UNESCO
New Zealand	0.9402	99.00	2014	UNESCO	104.55	2013	UNESCO	18.95	2013	UNESCO	12.50	2012	UNDP
Nicaragua	0.5454	82.82	2015	UNESCO	70.00	2014	UNESCO	10.51	2002	UNESCO	5.80	2012	UNDP
Niger	0.0498	19.13	2015	UNESCO	37.51	2012	UNESCO	5.42	2012	UNESCO	1.40	2012	UNDP
Nigeria	0.3784	59.57	2015	UNESCO	55.66	2005	UNESCO	8.99	2005	UNESCO	5.20	2012	UNDP

Table 15. Human Capital Index (HCI) and its components (continued)

Country	HCI	Adult Literacy (%)			Gross enrolment ratio (%)			Expected years of schooling			Mean years of schooling		
		Index value	Year	Source	Index value	Year	Source	Index value	Year	Source	Index value	Year	Source
Norway	0.9031	99.00	2014	UNESCO	98.53	2013	UNESCO	17.71	2013	UNESCO	12.40	2007	UNESCO
Oman	0.6796	91.14	2015	UNESCO	76.54	2011	UNESCO	13.64	2011	UNESCO	8.00	2008	UNESCO
Pakistan	0.3190	57.94	2015	UNESCO	45.82	2013	UNESCO	7.79	2013	UNESCO	4.73	2011	UNESCO
Palau	0.8867	99.52	2015	UNESCO	97.67	2013	UNESCO	16.86	2013	UNESCO	12.20	2012	UNDP
Panama	0.7175	95.05	2015	UNESCO	78.93	2012	UNESCO	13.28	2012	UNESCO	9.35	2010	UNESCO
Papua New Guinea	0.3240	64.23	2015	UNESCO	"36.98186								
"	1998	UNESCO	8.86	2012	UNDP (HDI)	3.90	2012	UNDP					
Paraguay	0.6409	95.56	2015	UNESCO	69.42	2010	UNESCO	11.91	2010	UNESCO	7.31	2008	UNESCO
Peru	0.7151	94.48	2015	UNESCO	81.99	2010	UNESCO	13.07	2010	UNESCO	9.01	2012	UNESCO
Philippines	0.6839	96.29	2015	UNESCO	81.48	2010	UNESCO	12.11	2013	UNESCO	7.56	2000	UNESCO
Poland	0.8747	99.79	2015	UNESCO	97.50	2013	UNESCO	16.42	2013	UNESCO	11.82	2012	UNESCO
Portugal	0.8129	95.68	2015	UNESCO	99.96	2013	UNESCO	16.66	2013	UNESCO	8.25	2012	UNESCO
Qatar	0.7317	97.30	2015	UNESCO	79.47	2005	UNESCO	13.79	2005	UNESCO	9.07	2012	UNESCO
Republic of Korea	0.8795	99.00	2014	UNESCO	98.58	2014	UNESCO	16.81	2014	UNESCO	11.77	2010	UNESCO
Republic of Moldova	0.7191	99.36	2015	UNESCO	70.71	2013	UNESCO	11.87	2013	UNESCO	11.19	2011	UNESCO
Romania	0.7736	98.77	2015	UNESCO	80.56	2011	UNESCO	14.21	2011	UNESCO	10.78	2012	UNESCO
Russian Federation	0.8234	99.72	2015	UNESCO	88.95	2012	UNESCO	14.51	2012	UNESCO	11.95	2010	UNESCO
Rwanda	0.4522	70.52	2015	UNESCO	67.28	2013	UNESCO	10.27	2013	UNESCO	3.74	2012	UNESCO
Saint Kitts and Nevis	0.6976	97.80	2014	UNESCO	75.22	2008	UNESCO	12.88	2008	UNESCO	8.40	2012	UNDP
Saint Lucia	0.6744	94.80	2014	UNESCO	73.53	2007	UNESCO	12.57	2007	UNESCO	8.30	2012	UNDP
Saint Vincent and the Grenadines	0.6754	88.10	2014	UNESCO	78.28	2004	UNESCO	13.26	2004	UNESCO	8.60	2012	UNDP
Samoa	0.7076	98.97	2015	UNESCO	71.32	2000	UNESCO	12.00	2000	UNESCO	10.30	2012	UNDP
San Marino	0.7999	99.00	2014	UN E-Gov Survey	85.33	2012	UNESCO	15.02	2012	UNESCO	10.76	2012	UNDP
Sao Tome and Principe	0.5188	74.92	2015	UNESCO	73.86	2012	UNESCO	11.29	2011	UNESCO	4.70	2012	UNDP
Saudi Arabia	0.7995	94.65	2015	UNESCO	100.32	2013	UNESCO	16.95	2013	UNESCO	7.30	2004	UNESCO
Senegal	0.4025	57.67	2015	UNESCO	48.25	2010	UNESCO	7.95	2000	UNESCO	9.61	2013	UNESCO

Table 15. Human Capital Index (HCI) and its components (continued)

Country	HCI	Adult Literacy (%)			Gross enrolment ratio (%)			Expected years of schooling			Mean years of schooling		
		Index value	Year	Source	Index value	Year	Source	Index value	Year	Source	Index value	Year	Source
Serbia	0.7769	98.11	2015	UNESCO	83.55	2013	UNESCO	14.39	2013	UNESCO	10.46	2011	UNESCO
Seychelles	0.6861	91.84	2012	UNESCO	72.11	2013	UNESCO	13.26	2013	UNESCO	9.40	2012	UNDP
Sierra Leone	0.2407	48.09	2015	UNESCO	45.43	2001	UNESCO	7.22	2001	UNESCO	2.90	2012	UNDP
Singapore	0.8360	96.76	2015	UNESCO	102.80	2014	UNESCO	15.40	2012	UNDP (HDI)	10.20	2012	UNDP
Slovakia	0.7822	99.00	2014	UNESCO	82.20	2013	UNESCO	15.07	2013	UNESCO	10.12	2001	UNESCO
Slovenia	0.8952	99.72	2015	UNESCO	98.41	2013	UNESCO	17.54	2013	UNESCO	11.89	2012	UNESCO
Solomon Islands	0.4402	76.60	1999	UNESCO	55.42	2007	UNESCO	9.24	2007	UNESCO	4.50	2012	UNDP
Somalia	0.0000	24.00	2014	UN E-Gov Survey	17.00	2014	UNDP HDI	2.40	2013	UNDP (HDI)	3.56	2012	UNDP
South Africa	0.7253	94.27	2015	UNESCO	78.00	2012	UNESCO	13.56	2012	UNESCO	9.94	2012	UNESCO
South Sudan	0.3607	70.21	2014	UNESCO	38.00	2014	UNESCO	8.00	2014	UNESCO	5.37	2008	UNESCO
Spain	0.8782	98.10	2015	UNESCO	107.54	2013	UNESCO	17.56	2013	UNESCO	9.58	2012	UNESCO
Sri Lanka	0.7369	92.63	2015	UNESCO	77.91	2013	UNESCO	13.79	2013	UNESCO	10.91	2001	UNESCO
Sudan	0.3581	75.90	2015	UNESCO	46.55	2012	UNESCO	7.09	2012	UNESCO	3.10	2012	UNDP
Suriname	0.6551	95.57	2015	UNESCO	72.21	2002	UNESCO	12.00	2012	UNDP (HDI)	7.65	2004	UNESCO
Swaziland	0.5882	87.47	2015	UNESCO	66.73	2011	UNESCO	11.33	2011	UNESCO	7.10	2012	UNDP
Sweden	0.9210	99.00	2014	UNESCO	104.89	2013	UNESCO	18.04	2013	UNESCO	12.10	2012	UNESCO
Switzerland	0.8579	99.00	2014	UNESCO	86.95	2012	UNESCO	15.79	2012	UNESCO	13.46	2009	UNESCO
Syrian Arab Republic	0.4864	86.43	2015	UNESCO	50.60	2013	UNESCO	8.39	2013	UNESCO	6.60	2009	UNESCO
Tajikistan	0.7001	99.77	2015	UNESCO	69.73	2012	UNESCO	11.24	2012	UNESCO	10.65	2000	UNESCO
Thailand	0.6942	96.67	2015	UNESCO	78.68	2013	UNESCO	13.42	2013	UNESCO	7.32	2010	UNESCO
The former Yugoslav Republic of Macedonia	0.6877	97.83	2015	UNESCO	70.01	2012	UNESCO	13.35	2012	UNESCO	8.20	2012	UNDP
Timor-Leste	0.4843	67.52	2015	UNESCO	71.82	2010	UNESCO	11.67	2010	UNESCO	4.40	2012	UNDP
Togo	0.5056	66.55	2015	UNESCO	72.80	2011	UNESCO	12.23	2011	UNESCO	5.30	2012	UNDP
Tonga	0.8102	99.40	2015	UNESCO	88.50	2003	UNESCO	14.71	2003	UNESCO	11.06	2011	UNESCO
Trinidad and Tobago	0.7077	98.96	2015	UNESCO	67.31	2004	UNESCO	12.27	2004	UNESCO	10.76	2009	UNESCO

Table 15. Human Capital Index (HCI) and its components (continued)

Country	HCI	Adult Literacy (%)			Gross enrolment ratio (%)			Expected years of schooling			Mean years of schooling		
		Index value	Year	Source	Index value	Year	Source	Index value	Year	Source	Index value	Year	Source
Tunisia	0.6397	81.78	2015	UNESCO	78.94	2013	UNESCO	14.60	2013	UNESCO	6.50	2012	UNDP
Turkey	0.7910	95.01	2015	UNESCO	97.23	2013	UNESCO	16.58	2013	UNESCO	7.56	2012	UNESCO
Turkmenistan	0.6583	99.69	2015	UNESCO	61.29	2014	UNESCO	10.80	2014	UNESCO	9.90	2012	UNDP
Tuvalu	0.6651	98.00	2014	UN E-Gov Survey	72.33	2001	UNESCO	10.80	2001	UNESCO	8.83	2012	UNDP
Uganda	0.4668	78.39	2015	UNESCO	61.32	2011	UNESCO	9.77	2011	UNESCO	4.17	2002	UNESCO
Ukraine	0.8390	99.76	2015	UNESCO	94.68	2013	UNESCO	15.14	2013	UNESCO	11.30	2012	UNDP
United Arab Emirates	0.6752	93.84	2015	UNESCO	67.00	2014	UNESCO	13.33	2012	UNDP (HDI)	9.00	2005	UNESCO
United Kingdom of Great Britain and Northern Ireland	0.9402	99.00	2014	UNESCO	101.78	2013	UNESCO	18.18	2013	UNESCO	13.75	2011	UNESCO
United Republic of Tanzania	0.3974	70.60	2015	UNESCO	53.45	2013	UNESCO	8.59	2013	UNESCO	4.30	2002	UNESCO
United States of America	0.8815	99.00	2014	UNESCO	95.44	2013	UNESCO	16.34	2013	UNESCO	12.93	2009	UNESCO
Uruguay	0.7820	98.49	2015	UNESCO	89.88	2010	UNESCO	15.50	2010	UNESCO	8.45	2012	UNESCO
Uzbekistan	0.6954	99.59	2015	UNESCO	70.39	2011	UNESCO	11.51	2011	UNESCO	10.00	2012	UNDP
Vanuatu	0.5884	85.23	2015	UNESCO	63.51	2004	UNESCO	10.60	2004	UNESCO	9.00	2012	UNDP
Venezuela (Bolivarian Republic of)	0.7498	96.32	2015	UNESCO	88.92	2009	UNESCO	14.22	2009	UNESCO	8.39	2009	UNESCO
Viet Nam	0.5989	94.51	2015	UNESCO	66.00	2014	UNESCO	11.90	2012	UNDP (HDI)	5.50	2012	UNDP
Yemen	0.3829	70.07	2015	UNESCO	55.97	2011	UNESCO	9.15	2011	UNESCO	2.50	2012	UNDP
Zambia	0.5643	63.38	2015	UNESCO	85.0		UNDP	13.50	2012	UNDP (HDI)	6.50	2012	UNDP
Zimbabwe	0.5641	86.50	2015	UNESCO	61.55	2012	UNESCO	10.85084	2012	UNESCO	7.2	2012	UNDP

Note: Last accessed in September 2015

Table 15. Human Capital Index (HCI) and its components (continued)

Region	HCI	Adult Literacy	Gross Enrolment Ratio	Expected Years of Schooling	Mean years of Schooling
Africa	0.4355	66.83	61.70	10.16	4.78
Americas	0.6933	92.52	79.00	13.31	8.41
Asia	0.6545	89.35	75.57	12.71	7.94
Europe	0.8360	98.81	92.01	15.93	11.04
Oceania	0.6897	91.95	79.15	12.97	9.00
World	0.6433	85.92	76.36	12.84	7.90
Small island Developing States	0.6442	89.07	75.29	12.47	7.71
Land Locked Developing Countries	0.5170	75.85	64.47	10.84	6.34
Least Developed Countries	0.3875	63.34	57.58	9.32	4.14
High Income	0.8270	98.17	91.65	15.85	10.78
Upper Middle Income	0.7061	93.34	79.62	13.57	8.61
Lower Middle Income	0.5573	81.49	67.53	11.23	6.69
Low Income	0.3746	61.35	58.29	9.18	3.99

Table 16. Regional and Economic Groupings for E-Government Development Index (EGDI)

Country	Region	Sub-Region	EGDI Level	Level of Income	GNI Per Capita (US dollars)
Afghanistan	Asia	Southern Asia	Low	Low Income	670
Albania	Europe	Southern Europe	High	Upper Middle Income	4460
Algeria	Africa	Northern Africa	Medium	Upper Middle Income	5480
Andorra	Europe	Southern Europe	High	High Income	43270*
Angola	Africa	Middle Africa	Medium	Upper Middle Income	4850
Antigua and Barbuda	Americas	Caribbean	Medium	High Income	13360
Argentina	Americas	South America	High	High Income	14160
Armenia	Asia	Western Asia	High	Lower Middle Income	3780
Australia	Oceania	Oceania	Very high	High Income	64680
Austria	Europe	Western Europe	Very high	High Income	50390*
Azerbaijan	Asia	Western Asia	High	Upper Middle Income	7590
Bahamas	Americas	Caribbean	High	High Income	20980
Bahrain	Asia	Western Asia	Very high	High Income	21050*
Bangladesh	Asia	Southern Asia	Medium	Lower Middle Income	1080
Barbados	Americas	Caribbean	High	High Income	14960**
Belarus	Europe	Eastern Europe	High	Upper Middle Income	7340
Belgium	Europe	Western Europe	Very high	High Income	47030
Belize	Americas	Central America	Medium	Upper Middle Income	4350*
Benin	Africa	West Africa	Low	Low Income	810
Bhutan	Asia	Southern Asia	Medium	Lower Middle Income	2390
Bolivia	Americas	South America	Medium	Lower Middle Income	2910
Bosnia and Herzegovina	Europe	Southern Europe	High	Upper Middle Income	4780
Botswana	Africa	Southern Africa	Medium	Upper Middle Income	7240
Brazil	Americas	South America	High	Upper Middle Income	11530
Brunei Darussalam	Asia	South-Eastern Asia	High	High Income	37320**
Bulgaria	Europe	Eastern Europe	High	Upper Middle Income	7420
Burkina Faso	Africa	West Africa	Low	Low Income	710
Burundi	Africa	Eastern Africa	Low	Low Income	270
Cabo Verde	Africa	West Africa	Medium	Lower Middle Income	3450
Cambodia	Asia	South-Eastern Asia	Medium	Low Income	1020
Cameroon	Africa	Middle Africa	Very high	Lower Middle Income	1360
Canada	Americas	North America	Medium	High Income	51690
Central African Republic	Africa	Middle Africa	Low	Low Income	330
Chad	Africa	Middle Africa	Low	Low Income	980
Chile	Americas	South America	High	High Income	14910
China	Asia	Eastern Asia	High	Upper Middle Income	7380
Colombia	Americas	South America	High	Upper Middle Income	7970
Comoros	Africa	Eastern Africa	Low	Low Income	820
Congo	Africa	Middle Africa	Low	Lower Middle Income	2710
Costa Rica	Americas	Central America	High	Upper Middle Income	10120
Côte d'Ivoire	Africa	West Africa	Low	Lower Middle Income	1460
Croatia	Europe	Southern Europe	High	High Income	13020
Cuba	Americas	Caribbean	Medium	Upper Middle Income	5880***

Table 16. Regional and Economic Grouping for E-Government Development Index (EGDI) (Continued)

Country	Region	Sub-Region	EGDI Level	Level of Income	GNI Per Capita (US dollars)
Cyprus	Asia	Western Asia	High	High Income	26370
Czech Republic	Europe	Eastern Europe	High	High Income	18970*
Democratic People's Republic of Korea	Asia	Eastern Asia	Medium	Low Income	506~
Democratic Republic of the Congo	Africa	Middle Africa	Low	Low Income	380
Denmark	Europe	Northern Europe	Very high	High Income	61310
Djibouti	Africa	Eastern Africa	Low	Lower Middle Income	1030&
Dominica	Americas	Caribbean	Medium	Upper Middle Income	7070
Dominican Republic	Americas	Caribbean	Medium	Upper Middle Income	6030
Ecuador	Americas	South America	High	Upper Middle Income	6070
Egypt	Africa	Northern Africa	Medium	Lower Middle Income	3050
El Salvador	Americas	Central America	Medium	Lower Middle Income	3950
Equatorial Guinea	Africa	Middle Africa	Low	High Income	12640
Eritrea	Africa	Eastern Africa	Low	Low Income	680
Estonia	Europe	Northern Europe	Very high	High Income	18530
Ethiopia	Africa	Eastern Africa	Medium	Low Income	550
Fiji	Oceania	Oceania	Medium	Upper Middle Income	4540
Finland	Europe	Northern Europe	Very high	High Income	48910*
France	Europe	Western Europe	Very high	High Income	43070
Gabon	Africa	Middle Africa	Medium	Upper Middle Income	9450
Gambia	Africa	West Africa	Low	Low Income	440
Georgia	Asia	Western Asia	High	Lower Middle Income	3720
Germany	Europe	Western Europe	Very high	High Income	47640
Ghana	Africa	West Africa	Medium	Lower Middle Income	1600
Greece	Europe	Southern Europe	High	High Income	22090
Grenada	Americas	Caribbean	High	Upper Middle Income	7850
Guatemala	Americas	Central America	Medium	Lower Middle Income	3410
Guinea	Africa	West Africa	Low	Low Income	470
Guinea-Bissau	Africa	West Africa	Low	Low Income	550
Guyana	Americas	South America	Medium	Lower Middle Income	4170
Haiti	Americas	Caribbean	Low	Low Income	820
Honduras	Americas	Central America	Medium	Lower Middle Income	2280
Hungary	Europe	Eastern Europe	High	High Income	13470
Iceland	Europe	Northern Europe	Very high	High Income	47640
India	Asia	Southern Asia	Medium	Lower Middle Income	1570
Indonesia	Asia	South-Eastern Asia	Medium	Lower Middle Income	3630
Iran (Islamic Republic of)	Asia	Southern Asia	Medium	Upper Middle Income	6840*
Iraq	Asia	Western Asia	Medium	Upper Middle Income	6320
Ireland	Europe	Northern Europe	Very high	High Income	44660
Israel	Asia	Western Asia	Very high	High Income	34990
Italy	Europe	Southern Europe	Very high	High Income	34280
Jamaica	Americas	Caribbean	Medium	Upper Middle Income	5220*
Japan	Asia	Eastern Asia	Very high	High Income	42000

Table 16. Regional and Economic Grouping for E-Government Development Index (EDGI) (Continued)

Country	Region	Sub-Region	EGDI Level	Level of Income	GNI Per Capita (US dollars)
Jordan	Asia	Western Asia	High	Upper Middle Income	5160
Kazakhstan	Asia	Central Asia	High	Upper Middle Income	11670
Kenya	Africa	Eastern Africa	Medium	Lower Middle Income	1290
Kiribati	Oceania	Oceania	Medium	Lower Middle Income	2150
Kuwait	Asia	Western Asia	High	High Income	52000*
Kyrgyzstan	Asia	Central Asia	Medium	Lower Middle income	1250
Lao People's Democratic Republic	Asia	South-Eastern Asia	Medium	Lower Middle Income	1650
Latvia	Europe	Northern Europe	High	High Income	15660
Lebanon	Asia	Western Asia	High	Upper Middle Income	9800
Lesotho	Africa	Southern Africa	Medium	Lower Middle Income	1340
Liberia	Africa	West Africa	Low	Low Income	370
Libya	Africa	Northern Africa	Medium	Upper Middle Income	7910
Liechtenstein	Europe	Western Europe	High	High Income	115530^
Lithuania	Europe	Northern Europe	Very high	High Income	15380
Luxembourg	Europe	Western Europe	Very high	High Income	69880*
Madagascar	Africa	Eastern Africa	Low	Low Income	440
Malawi	Africa	Eastern Africa	Low	Low Income	250
Malaysia	Asia	South-Eastern Asia	High	Upper Middle Income	10760
Maldives	Asia	Southern Asia	Medium	Upper Middle Income	7170
Mali	Africa	West Africa	Low	Low Income	660
Malta	Europe	Southern Europe	High	High Income	21000*
Marshall Islands	Oceania	Oceania	Medium	Upper Middle Income	4300*
Mauritania	Africa	West Africa	Low	Lower Middle Income	1270
Mauritius	Africa	Eastern Africa	High	Upper Middle Income	9710
Mexico	Americas	Central America	High	Upper Middle Income	9860
Micronesia (Federated States of)	Oceania	Oceania	Medium	Lower Middle Income	3270
Monaco	Europe	Western Europe	High	High Income	186710^^
Mongolia	Asia	Eastern Asia	High	Upper Middle Income	4280
Montenegro	Europe	Southern Europe	High	Upper Middle Income	7240
Morocco	Africa	Northern Africa	High	Lower Middle Income	2980
Mozambique	Africa	Eastern Africa	Low	Low Income	620
Myanmar	Asia	South-Eastern Asia	Low	Lower Middle Income	1270
Namibia	Africa	Southern Africa	Medium	Upper Middle Income	5680
Nauru	Oceania	Oceania	Medium	Upper Middle Income	6746~
Nepal	Asia	Southern Asia	Medium	Low Income	730
Netherlands	Europe	Western Europe	Very high	High Income	51210
New Zealand	Oceania	Oceania	Very high	High Income	39300*
Nicaragua	Americas	Central America	Medium	Lower Middle Income	1870
Niger	Africa	West Africa	Low	Low Income	420
Nigeria	Africa	West Africa	Medium	Lower Middle Income	2970
Norway	Europe	Northern Europe	Very high	High Income	103050
Oman	Asia	Western Asia	High	High Income	16870*
Pakistan	Asia	Southern Asia	Medium	Lower Middle Income	1410

Table 16. Regional and Economic Grouping for E-Government Development Index (EGDI) (Continued)

Country	Region	Sub-Region	EGDI Level	Level of Income	GNI Per Capita (US dollars)
Palau	Oceania	Oceania	Medium	Upper Middle Income	11110
Panama	Americas	Central America	Medium	Upper Middle Income	11130
Papua New Guinea	Oceania	Oceania	Low	Lower Middle Income	2030*
Paraguay	Americas	South America	Medium	Upper Middle Income	4380
Peru	Americas	South America	High	Upper Middle Income	6370
Philippines	Asia	South-Eastern Asia	High	Lower Middle Income	3470
Poland	Europe	Eastern Europe	High	High Income	13730
Portugal	Europe	Southern Europe	High	High Income	21320
Qatar	Asia	Western Asia	High	High Income	94410
Republic of Korea	Asia	Eastern Asia	Very high	High Income	27090
Republic of Moldova	Europe	Eastern Europe	High	Lower Middle Income	2550
Romania	Europe	Eastern Europe	High	Upper Middle Income	9370
Russian Federation	Europe	Eastern Europe	High	High Income	13210
Rwanda	Africa	Eastern Africa	Medium	Low Income	700
Saint Kitts and Nevis	Americas	Caribbean	High	High Income	14490
Saint Lucia	Americas	Caribbean	Medium	Upper Middle Income	7080
Saint Vincent and the Grenadines	Americas	Caribbean	Medium	Upper Middle Income	6560
Samoa	Oceania	Oceania	Medium	Lower Middle Income	4050
San Marino	Europe	Southern Europe	High	High Income	52140^^
Sao Tome and Principe	Africa	Middle Africa	Low	Lower Middle Income	1670
Saudi Arabia	Asia	Western Asia	High	High Income	25140*
Senegal	Africa	West Africa	Medium	Lower Middle Income	1040
Serbia	Europe	Southern Europe	High	Upper Middle Income	5820
Seychelles	Africa	Eastern Africa	High	High Income	13990
Sierra Leone	Africa	West Africa	Low	Low Income	710
Singapore	Asia	South-Eastern Asia	Very high	High Income	55150
Slovakia	Europe	Eastern Europe	High	High Income	17810*
Slovenia	Europe	Southern Europe	Very high	High Income	23220*
Solomon Islands	Oceania	Oceania	Low	Lower Middle Income	1830
Somalia	Africa	Eastern Africa	Low	Low Income	107~
South Africa	Africa	Southern Africa	High	Upper Middle Income	6800
South Sudan	Africa	Eastern Africa	Low	Low Income	940
Spain	Europe	Southern Europe	Very high	High Income	29940*
Sri Lanka	Asia	Southern Asia	High	Lower Middle Income	3400
Sudan	Africa	Northern Africa	Medium	Lower Middle Income	1710
Suriname	Americas	South America	Medium	Upper Middle Income	9470*
Swaziland	Africa	Southern Africa	Medium	Lower Middle Income	2700
Sweden	Europe	Northern Europe	Very high	High Income	61600
Switzerland	Europe	Western Europe	Very high	High Income	90670*
Syrian Arab Republic	Asia	Western Asia	Medium	Lower Middle Income	1860^^^
Tajikistan	Asia	Central Asia	Medium	Lower Middle Income	1080
Thailand	Asia	South-Eastern Asia	High	Upper Middle Income	5370

Table 16. Regional and Economic Grouping for E-Government Development Index (EGDI) (Continued)

Country	Region	Sub-Region	EGDI Level	Level of Income	GNI Per Capita (US dollars)
The former Yugoslav Republic of Macedonia	Europe	Southern Europe	High	Upper Middle Income	5150
Timor-Leste	Asia	South-Eastern Asia	Medium	Lower Middle Income	3120
Togo	Africa	West Africa	Medium	Low Income	570
Tonga	Oceania	Oceania	Medium	Upper Middle Income	4290
Trinidad and Tobago	Americas	Caribbean	High	High Income	15550*
Tunisia	Africa	Northern Africa	High	Upper Middle Income	4210*
Turkey	Asia	Western Asia	High	Upper Middle Income	10840
Turkmenistan	Asia	Central Asia	Medium	Upper Middle Income	8020
Tuvalu	Oceania	Oceania	Medium	Upper Middle Income	5840*
Uganda	Africa	Eastern Africa	Medium	Low Income	680
Ukraine	Europe	Eastern Europe	High	Lower Middle Income	3560
United Arab Emirates	Asia	Western Asia	Very high	High Income	45200
United Kingdom of Great Britain and Northern Ireland	Europe	Northern Europe	Very high	High Income	42690
United Republic of Tanzania	Africa	Eastern Africa	Medium	Low Income	930
United States of America	Americas	North America	Very high	High Income	55200
Uruguay	Americas	South America	High	High Income	16350
Uzbekistan	Asia	Central Asia	High	Lower Middle Income	2090
Vanuatu	Oceania	Oceania	Medium	Lower Middle Income	3090*
Venezuela	Americas	South America	High	High Income	12890
Viet Nam	Asia	South-Eastern Asia	High	Lower Middle Income	1890
Yemen	Asia	Western Asia	Low	Lower Middle Income	1300*
Zambia	Africa	Eastern Africa	Medium	Lower Middle Income	1680
Zimbabwe	Africa	Eastern Africa	Medium	Low Income	830

Source: World Bank 2015 World Development Indicators (Accessed 18 September 2015)

<http://data.worldbank.org/data-catalog/world-development-indicators>

Year: 2014 or most recent data available (as indicated)

* 2013

** 2012

*** 2011

^ 2009

^^ 2008

^^^ 2007

& 2005

~ 2014 (UN Data)

References

Chapter 1

Adebesin, Funmi (2013). 'A review of interoperability standards in e-Health and imperatives for their adoption in Africa', SACJ , No. 50 (July 2013).

Berger G. and Steurer R. (2009). 'Horizontal policy integration and sustainable development: Conceptual remarks and governance examples', ESDN Quarterly Report, [online], June 2009,available: http://www.sd-network.eu/?k=quarterly%20reports&report_id=13. [accessed: 1 November 2015].

Bilbao-Osorio, B. et al. (2014). 'The Global Information Technology Report 2014 Rewards and Risks of Big Data', Geneva: World Economic Forum.

Clark, Helen (2012). 'The Importance of Governance for Sustainable Development', Remarks on the Occasion of the Singapore Lecture Series, United Nations Development Programme, 13 March 2012, Singapore, [online], available: <http://www.undp.org/content/undp/en/home/presscenter/speeches/2012/03/13/the-importance-of-governance-for-sustainable-development.html>. [accessed: 1 November 2015].

Dinevski, D. et al. (2010). 'E-health Integration and Interoperability based on Open-Source Information Technology', Wiener klinische Wochenschrift, May 2010.

Dominic S. and Meijers E. (2004). 'Policy Integration: What Does It Mean and How Can It Be Achieved? A Multi-disciplinary Review', Paper for 2004 Berlin Conference on the Human Dimensions of Global Environmental Change: Greening of Policies – Interlinkages and Policy Integration, [online], available: http://userpage.fu-berlin.de/ffu/akumwelt/bc2004/download/meijers_stead_f.pdf. [accessed: 1 November 2015].

Dzhusupova, Zamira (2013). 'Enabling Democratic Local Governance through Rural E-Municipalities in Kyrgyzstan', in: Mahmood Zaigham (ed.). E-Government Implementation and Practice in Developing Countries, pp. 34–58, Hershey, PA: IGI Global.

ECOSOC, United Nations Economic and Social Council (2015). Report of the Secretary-General. Strengthening and Building Institutions for Policy Integration in the Post-2015 Era. E/2015/69.

Estevez, E. et al. (2013). 'Electronic Governance for Sustainable Development: How EGOV Solutions contribute to SD Goals?', Proceedings of the 14th Annual International Conference on Digital Government Research, pp. 92-101.

European Commission (2015). 'Future-proofing eGovernment for a Digital Single Market – Final insight Report', June 2015, ISBN 978-92-79-48427-8.

Eynon R. and Dutton W. (2007). 'Barriers to Networked Governments: Evidence from Europe', Prometheus, vol. 25, Issue 3.

Fountain, Jane (2007). 'Bureaucratic Reform and E-Government in the United States: An Institutional Perspective', National Center for Digital Government of the University of Massachusetts Amherst. Paper 07-006.

——— (2010). 'The Office for Harmonization in the Internal Market: Creating a 21st Century Public Agency', National Center for Digital Government of the University of Massachusetts Amherst. Paper 38.

REFERENCES

- (2011). 'Disjointed Innovation: The Political Economy of Digitally Mediated Institutional Reform, Paper prepared for presentation at the 2011 Annual Meeting of the American Political Science'.
- (2013). 'Interview by Michael J. Keegan - Implementing Cross-Agency Collaboration: A Guide for Federal Managers with Dr. Jane Fountain', IBM Center for the Business of Government.
- (2014). On the Effects of e-Government on Political Institutions. New York: Routledge.
- Gaffney, Andrea (2007). 'Hammarby Sjostad', Stockholm, Sweden: A Case Study, [online], available: <http://www.aeg7.com/assets/publications/hammarby%20sjostad.pdf>. [accessed: 1 November 2015].
- Gil-Garcia, J. Ramon (2012). 'Towards a smart state? Inter-agency collaboration, Information Integration, and Beyond', Information Polity.
- Government of Australia, Management Advisory Committee (2004). 'Connecting Government: Whole of Government Responses to Australia's Priority Challenges', ISBN 0 97510151X.
- Government of Karnataka (2014). 'Electronic Integration of BHOOMI with Stakeholders, Karnataka', [online], available: http://darpg.gov.in/darpgwebsite_cms/document/file/Case%20Study%20-%20Bhoomi.pdf. [accessed: 1 November 2015].
- Government of the Republic of Korea (2012). 'Whole-of-Government Approach to Welfare Reform – Social Security Information System', [online], available: http://workspace.unpan.org/sites/Internet/Documents/Session%208_GeunChan_Lim.pdf. [accessed: 1 November 2015].
- Government of Singapore (2006). From Integrating Services and to Integrating Government. Report by the iGov 2010 Project Steering Committee, [online], available: https://www.ida.gov.sg/~media/Files/Infocomm%20Landscape/iN2015/Reports/07_iGov2010.pdf. [accessed: 1 November 2015].
- (2015). 'About AGD: Our Role within Whole-of-Government', [online], available: http://www.agd.gov.sg/about_role.html. [Accessed: 1 November 2015].
- Government of Slovenia, Ministry of the Interior and Public Administration (2013). 'Initiative – Reusable IT Building Blocks for Electronic Data Exchange – Implementation for e-Social Security', [online], available: <http://www.unpan.org/DPADM/UNPSDayAwards/KnowledgeBaseofUNPublicServiceAwards/tabid/1260/language/en-US/Default.aspx>. [accessed: 1 November 2015].
- Government of Thailand, Department of Disease Control (2015). 'Webcam Connected Microscope for Trusted Malaria Telediagnosis on Cloud in Remote Border A', Submission to the United Nations Public Service Award 2015. Knowledge Base of UN Public Service Awards Initiatives, [online], available: <http://www.unpan.org/DPADM/UNPSDayAwards/KnowledgeBaseofUNPublicServiceAwards/tabid/1260/language/en-US/Default.aspx>. [accessed: 1 November 2015].
- Government of Turkey, Ministry of Family and Social Policy (2015). 'Turkey's Integrated Social Assistance Services System: Recent Effort, Impressive Virtual Integration', Workshop on Integrated Data and Information Management for Social Protection: Bridging the Gaps between Theory and Practice Jakarta, 11-12 March, [online], available: http://www.opml.co.uk/sites/default/files/Poster%20Turkey_FINAL.pdf. [accessed: 1 November 2015].

Government of the United Kingdom, Department of Business Innovation and Skills (2013). 'Global Innovators: International Case Studies on Smart Cities - Case Studies Report', BIS Research Paper, No. 135. (October 2013).

Government of the United States, Federal Emergency Management Agency (2015). 'Welcome to FEMA's Flood Map Service Center', [online], available: <https://msc.fema.gov/portal>. [accessed: 1 November 2015].

Government of the United States, Office of Management and Budget (2014). 'FY 2014 Annual Report to Congress: E-government Act Implementation', 8 January 2014, [online], available: <https://www.whitehouse.gov/omb/e-gov/docs>. [accessed: 1 November 2015].

Grebien, Gregory (2012). 'How agencies can use data more effectively', Federal Times, 22 January 2012, [online], available: <http://archive.federaltimes.com/article/20120122/ADOP06/20120301/How-agencies-can-use-data-more-effectively>. [accessed: 1 November 2015].

Greengard, Samuel (2014). 'Analytics Tools Help China Deal With Air Pollution', Baseline, 15 August 2014, [online], available: <http://www.baselinemag.com/analytics-big-data/analytics-tools-help-china-deal-with-air-pollution.html#sthash.FwS7PYTm.dpuf>. [accessed: 1 November 2015].

Hanna, Nagy K. (2011). Transforming Government and Building the Information Society: Challenges and Opportunities for the Developing World. New York: Springer.

Hawley, Kate (2014). 'Transforming Cities for Sustainability: Facts and Figures', SciDevNet, 19 November 2014, [online], available: <http://www.scidev.net/global/cities/feature/transforming-cities-sustainability-facts-figures.html>. [accessed: 1 November 2015].

Henman, Paul (2005). 'E-government, Public Policy and the Growth of Conditionality', Proceedings of European Conference on E-Government'05, Antwerp, Belgium, 16-17 June 2005, [online], available: <http://www.uq.edu.au/swahs/ECEGPaper.pdf>. [accessed: 1 November 2015].

Hodgkinson, Steve (2011). 'Is Your City Smart Enough?', Ovum, [online], available: http://www.cisco.com/web/strategy/docs/Is_your_city_smart_enough-Ovum_Analyst_Insights.pdf. [accessed: 1 November 2015].

Jones, Andrew (2013). 'Smart Cities', LGiU Policy Briefing. Local Government information Unit, [online], available: <http://www.lgiu.org.uk/wp-content/uploads/2013/10/Smart-Cities.pdf>. [accessed: 1 November 2015].

Kierkegaard, Patrick (2013). 'E-Health in Denmark: A Case Study', Journal of Medical Systems. vol. 37.

Kim, Ran (2014). 'Role and Positioning of E-government Leadership: Trends and Issues', Paper for the United Nations Expert Group Meeting on Policy Integration in Government in Pursuit of the SDGs (28-29 January 2015), [online], available: <http://workspace.unpan.org/sites/Internet/Documents/UNPAN94253.pdf>. [accessed: 1 November 2015].

KOÇ, Serkan (2011). 'Use of ICT in Macro Projects in Poverty Alleviation - Integrated Social Assistance Services Project', available: <http://www.sesrtcic.org/imgs/news/image/620-statement-session3-1.pdf>. [accessed: 1 November 2015].

REFERENCES

- Langer M., and SchÖn A. (2002). 'Evaluation of Sustainable Development: An Integrated Referential Framework for Sustainable Development', Prepared for the WU-Jahrestagung 2002, [online], available: <http://epub.wu.ac.at/904/1/document.pdf>. [accessed: 1 November 2015].
- David Le Blanc (2015). 'Towards integration at last? The sustainable development goals as a network of targets' DESA Working Paper No. 141 ST/ESA/2015/DWP/141, [online], available: http://www.un.org/esa/desa/papers/2015/wp141_2015.pdf. [accessed: 1 March 2016],
- Lee, Jung Hoon. et al. (2014). 'Towards an effective framework for building smart cities: Lessons from Seoul and San Francisco', Technological Forecasting and Social Change, vol. 89 (November).
- Millard J. and Carpenter J. (2014). 'Case study analysis report of online collaboration and networking tools for social innovation – a deliverable of the project', The theoretical, empirical and policy foundations for building social innovation in Europe (TEPSIE), European Commission – 7th Framework Programme, Brussels: European Commission.
- Mochty, Franz (2009). 'Electronic Data Management: An integrated EGovernment-Application in the Environmental Field in Austria', [online], available: <http://www.e-envi2009.org/presentations/S2/Mochty.pdf>. [accessed: 1 November 2015].
- Montenegro, Hernán (2011). 'Combating Health Care Fragmentation through Integrated Health Service Delivery Networks in the Americas: Lessons Learned', Journal of Integrated Care, vol.19, Issue 5.
- Nam, Taewoo (2013). 'Government 3.0 in Korea: fad or fashion?', ICEGOV' 13 Proceedings of the 7th International Conference on Theory and Practice of Electronic Governance.
- Navara D. and Bianchi C. (2013). 'Territorial Governance, E-government and Sustainable Development Policy: A system dynamics approach', pp. 14-25, in: Wimmer, Maria et al. (eds.). Electronic Government. 12th IFIP WG 8.5 International Conference, EGOV 2013 Proceedings.
- OECD, Organisation for Economic Co-operation and Development (1996). Building Policy Coherence, Tools and Tensions, Public Management Occasional Papers, No.12. Paris: OECD.
- (2008). Ireland: Towards an integrated Public Service. OECD Public Management Reviews, Paris: OECD. [online], available: <http://www.oecd.org/ireland/oecdpublicmanagementreviews-irelandtowardsanintegratedpublicservice.htm>. [accessed: 1 November 2015].
- (2009). The Financial and Economic Crisis Impact on E-government in OECD countries. 5th Ministerial eGovernment Conference 19-20 November – Malmö, Sweden, Paris: OECD.
- (2012). OECD E-government Studies – Egypt (2012). Paris: OECD.
- Paredes, Divina (2013). 'Fleshing out big data: A huge undertaking (2013)', CIO, 9 August 2013, [online], available: http://www.cio.co.nz/article/523305/fleshing_big_data_huge_undertaking/. [accessed: 1 November 2015].
- Partnership for Public Service (2011). 'From data to decisions: The power of analytics', [online], available: <http://www.businessofgovernment.org/sites/default/files/From%20Data%20to%20Decisions.pdf>. [accessed: 1 November 2015].

Payton, Jean (2012). 'Is Rio de Janeiro the world's first 'smart' city?', *The Christian Science Monitor*, 15 March 2012, [online], available: <http://www.csmonitor.com/World/Making-a-difference/Change-Agent/2012/0315/Is-Rio-de-Janeiro-the-world-s-first-smart-city>. [accessed: 1 November 2015].

Pearce, Rohan (2015). 'DTO works on Whole-of-Government Service Analytics', *Computer World*, 2 June 2015, [online], available: <http://www.computerworld.com.au/article/576394/dto-works-whole-of-government-service-analytics/>. [accessed: 1 November 2015].

Špaček, David (2014). 'Enhancing coordination through e-government in the Czech Republic', *Organizing for Coordination in the Public Sector: Practices and Lessons from 12 European countries*. New York: The Palgrave McMillian.

Thukral, Sanjeev (2014). 'Can BI & Analytics Eradicate Poverty From India?', *iGovernment*. 19 November 2014, [online], available: <http://www.igovernment.in/opinion/1000786/can-bi-analytics-eradicate-poverty-from-india>. [accessed: 1 November 2015].

UNDESA, UN Department of Economic and Social Affairs (2012). United Nations E-Government Survey 2012: E-government for the People. ST/ESA/PAS/SER.E/150.

——— (2014). United Nations E-Government Survey 2014: E-Government for the Future We Want. ST/ESA/PAD/SER.E/188.

——— (2015a). 'Policy integration in government in pursuit of the sustainable development goals – Report of the expert group meeting', 28 - 29 January 2015, available: <http://www.un.org/esa/socdev/csocd/2016/egmreport-policyintegrationjan2015.pdf>. [accessed: 1 November 2015]. E/CN.16/2015/CRP.2.

——— (2015b). Global Sustainable Development Report. available: <https://sustainabledevelopment.un.org/content/documents/1758GSDR%202015%20Advance%20Unedited%20Version.pdf>. [accessed: 1 November 2015].

United Nations (1992). Outcome Document of the Conference on Environment and Development, Rio de Janeiro, Brazil, 3 to 14 June 1992. Agenda 21.

——— (2012). Big Data for Development: Challenges & Opportunities. available: <http://www.unglobalpulse.org/sites/default/files/BigDataforDevelopment-GlobalPulseMay2012.pdf>. [accessed: 1 November 2015].

——— (2013). A New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development. Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda.

——— (2014a). The Road to Dignity by 2030: Ending Poverty, Transforming all Lives and Protecting the Planet. Synthesis Report of the Secretary-General on the Post-2015 Sustainable Development Agenda.. A/69/700.

——— (2014b). 'High-level Political Forum on Sustainable Development Issues Briefs 5: From Silos to Integrated Policymaking', [online], available: https://sustainabledevelopment.un.org/content/documents/1322HLPF_Brief_5.pdf. [accessed: 1 November 2015].

——— (2014c). A World that Counts: Mobilising the Data Revolution for Sustainable Development.

REFERENCES

- (2015a). Transforming our world: the 2030 Agenda for Sustainable Development. A/RES/70/1.
- (2015b). Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda). A/RES/69/313.
- Report prepared by Independent Expert Advisory Group on the Data Revolution for Sustainable Development. [online], available: <http://www.undatarevolution.org/wp-content/uploads/2014/12/A-World-That-Counts2.pdf>. [accessed: 1 November 2015].
- (2015c). 'Report of the Secretary-General - Outcome of the Third International Conference on Financing for Development', A/70/150.
- UNDP, United Nations Development Programme (2013). From Connectivity to Service Delivery: Case Studies in E-governance. [online], available: http://www.undp.org/content/undp/en/home/librarypage/democratic-governance/access_to_informationandegovernance/from-connectivity-to-service-delivery---case-studies-in-e-govern.html. [accessed: 1 November 2015].
- UNEP, United Nations Environment Programme (2009). Integrated policymaking for Sustainable Development: A Reference Manual. ISBN 978-92-807-2923-8.
- UNESCAP, United Nations Economic and Social Commission for Asia and the Pacific (2015). Balancing the Three Dimensions of Sustainable Development: From Integration to Implementation. Economic and Social Survey of Asia and the Pacific 2015. Part II. ST/ESCAP/2718.
- UNESCWA, United Nations Economic and Social Commission for West Asia (2015). Arab Sustainable Development Report Prototype Edition. available: http://www.preventionweb.net/files/45335_arabsustainabledevelopmentreport.pdf. [accessed: 1 November 2015].
- Wicks, P. et al. (2014). 'Innovations in E-health', Qual Life Res. vol. 23, Issue 1.
- World Bank (2012). 'Who Needs Smart Cities for Sustainable Development?', World Bank, 20 March 2012, [online], available: <http://www.worldbank.org/en/news/feature/2012/03/20/who-needs-smart-cities-for-sustainable-development>. [accessed: 1 November 2015].

Chapter 2

Bennett D. and Harvey A. (2009). 'Publishing Open Government Data', W3C, [online], 8 September 2009, available: <http://www.w3.org/TR/gov-data/>. [accessed: 1 November 2015].

Chêne, Marie (2014). 'Providing on-demand Research to help fight Corruption: The impact of corruption on growth and inequality', Transparency International, [online], available: http://www.transparency.org/files/content/corruptionqas/Impact_of_corruption_on_growth_and_inequality_2014.pdf. [accessed: 1 November 2015].

Chui M., Farrell D. and Jackson K. (2014). 'How government can promote open data', McKinsey Global Institute, [online], available: http://www.mckinsey.com/insights/public_sector/how_government_can_promote_open_data. [accessed: 1 November 2015].

ECOSOC, United Nations Economic and Social Council (2015). Committee of Experts on Public Administration Report on the fourteenth session. 20-24 April 2015. E/2015/44-E/C.16/2015/7.

Elena S., Aquilino N. and Pichón Rivière A. (2014). Case Study: Emerging Impacts in Open Data in the Judiciary Branches in Argentina, Chile and Uruguay. Buenos Aires: CIPPEC.

European Commission (2012). Green Public Procurement, A collection of good practices. ISBN 978-92-79-26276-0.

——— (2015). Future-proofing eGovernment for a Digital Single Market. ISBN 978-92-79-48428-5.

Gass, Thomas (2015). Providing Access to Legal Information to Accelerate Sustainable Development. 24 June 2015, New York, Department of Economic and Social Affairs, available: <http://workspace.unpan.org/sites/Internet/Documents/UNPAN94915.pdf>. [accessed: 1 November 2015].

Global Partnership For Sustainable Development Data (2015). 'About', Global Partnership For Sustainable Development Data, available: <http://www.data4sdgs.org/who-we-are/>. [accessed: 1 November 2015].

Government of Australia, Department of Finance and Deregulation (2013). The Australian Public Service Big Data Strategy: Improved understanding through enhanced data-analytics capability. ISBN 978-1-922096-27-2.

Government of United Kingdom, Cabinet Office (2012). 'Open Data White Paper: Unleashing the Potential', [online], available: <https://www.gov.uk/government/publications/open-data-white-paper-unleashing-the-potential>. [accessed: 1 November 2015].

Government of United States (2015). 'Open Government', Data.Gov, available: <https://www.data.gov/open-gov/>. [accessed: 1 November 2015].

Hattgen K. and Klasen S. (2010). Fragility and MDG Progress: How Useful is the Fragility Concept? - EUI-RSCAS Working Papers, pp.12. [online], available: http://cadmus.eui.eu/bitstream/handle/1814/13585/RSCAS_2010_20.pdf;jsessionid=06333966197F994625567467AA794F4A?sequence=1. [accessed: 1 November 2015].

International Budget Partnership (2015). 'Open Budget Survey 2015', [online], available: <http://internationalbudget.org/opening-budgets/open-budget-initiative/open-budget-survey/publications-2/rankings-key-findings/key-findings/>. [accessed: 1 November 2015].

REFERENCES

- IPCC, Intergovernmental Panel on Climate Change (2014). Synthesis Report, Summary for Policymakers: Climate Change. pp.37. [online], available: https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf. [accessed: 1 November 2015].
- IPU, Inter-Parliamentary Union (2015). Resolution on Democracy in the digital era and the threat to privacy and individual freedoms. Geneva. 21 October 2015. available: <http://www.ipu.org/conf-e/133/res-1.htm>. [accessed: 1 November 2015].
- Jesuit Hakimani Centre (2014). Open Government Data or effective public participation. April 2014. Nairobi Kenya. available: <http://www.opendataresearch.org/sites/default/files/publications/JHC%20Publication%20April%202014%20-%20ODDC%20research.pdf>. [accessed: 1 November 2015].
- Longo, Justin (2013). 'Open Government – What's in a Name?', GovLab Blog, 5 August 2013, [online], available: <http://thegovlab.org/open-government-whats-in-a-name/>. [accessed: 1 November 2015].
- Manyika J. et al. (2013). 'Open data: Unlocking innovation and performance with liquid Information', McKinsey Global Institute, [online], available: http://www.mckinsey.com/insights/business_technology/open_data_unlocking_innovation_and_performance_with_liquid_information. [accessed: 1 November 2015].
- Mckenzie D. and Exler R. (2014). 'The Success of Open Data Depends on Open Standards', Government Technology, 16 September 2014, [online], available: <http://www.govtech.com/data/The-Success-of-Open-Data-Depends-on-Open-Standards.html>. [accessed: 1 November 2015].
- McLaughlin, Brian (2015) 'U.S. Judicial Branch Embraces Open Government', PATimes, 25 January 2015, [online], available: <http://patimes.org/u-s-judicial-branch-embraces-open-government/>. [accessed: 1 November 2015].
- Mendel, Toby (2015). 'Freedom of Information as an Internationally Protected Human Right', [online], available: <https://www.article19.org/data/files/pdfs/publications/foi-as-an-international-right.pdf>. [accessed: 1 November 2015].
- Montiel, Lenni, 'The 2030 agenda for sustainable development: from vision to implementation, statement delivered at the Symposium on "Promotion of an Inclusive and Effective Public Administration, Cochabamba, Bolivia, February 2016.
- Open Data Institute (2015). 'Supporting Sustainable Development with Open Data', [online], available from: <http://theodi.org/supporting-sustainable-development-with-open-data>. [accessed: 1 November 2015].
- OSJI, Open Society Justice Initiative (2009). 'Report on Access to Judicial Information'. pp. I. [online], available: <http://www.right2info.org/resources/publications>. [accessed: 1 November 2015].
- Ubaldi, Barbara (2013). 'Open Government Data: Towards Empirical Analysis of Open Government Data Initiatives', Organisation for Economic Co-operation and Development, [online], available: http://www.oecd-ilibrary.org/governance/open-government-data_5k46bj4f03s7-en. [accessed: 1 November 2015].
- UNDESA, UN Department of Economic and Social Affairs (2005). Challenges and Perspectives in Reforming Governance Institutions - DPADM Technical Papers. [online], available: <http://unpan1.un.org/intradoc/groups/public/documents/un/unpan021508.pdf>. [accessed: 1 November 2015].

——— (2010). World Public Sector Report: Reconstructing Public Administration after Conflict - Challenges, Practices and Lessons Learned. ST/ESA/PAD/SER.E/135.

——— (2014). United Nations E-Government Survey 2014: E-Government for the Future We Want. ST/ESA/PAD/SER.E/188.

——— (2015a) Report of the Expert Group Meeting: E-Government for Sustainable Development. Division for Public Administration and Development Management, UNDESA, 16-17 March 2015. ST/ESA/PAD/SER.E/205.

——— (2015b). National adoption, governance and institutions of MDGs: Lessons and implications for post-2015. [online], available: <https://wess.un.org/wp-content/uploads/2015/02/WESS-2015-BP-Adoption-Governance-Institutions-24-02-15-unedited.pdf>. [accessed: 1 November 2015].

——— (2015c). World Public Sector Report: Responsive and Accountable Public Governance. ST/ESA/PAD/SER.E/187.

——— (2015d). 'United Nations Sustainable Development Knowledge Platform', [online], available: <http://www.un.org/esa/sustdev/sdissues/consumption/procurement/clemencec.pdf>. [accessed: 1 November 2015].

UNDESA, UN Department of Economic and Social Affairs, and INTOSAI, International Organization Supreme Audit Institutions (2013). Audit and Advisory Activities by SAIs: Opportunities and Risks, as well as Possibilities for Engaging Citizens Report of the Expert Group Meeting. ST/ESA/PAD/SER.E/192.

UNDESA, UN Department of Economic and Social Affairs, and IPU, Inter-Parliamentary Union (2012). World e-Parliament Report 2012. ST/ESA/PAD/SER.E/176.

UN General Assembly (1946). Calling of an International Conference on Freedom of Information. A/RES/59(1).

——— (2000). United Nations Millennium Declaration. A/RES/55/2.

——— (2001). Combating the criminal misuse of information technologies in the great year of the world. para. e. A/RES/55/63.

——— (2014a). The Road to Dignity by 2030: Ending Poverty, Transforming all Lives and Protecting the Planet. Synthesis Report of the Secretary-General on the Post-2015 Sustainable Development Agenda. A/69/700.

——— (2014b). The right to privacy in the digital age. A/RES/69/166.

——— (2014c). Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda). A/RES/69/313.

——— (2015a). Transforming our world: the 2030 Agenda for Sustainable Development. A/RES/70/1.

——— (2015b). Outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of the outcomes of the World Summit on the Information Society. A/RES/70/125.

United Nations (2013). A new global partnership: Eradicate Poverty and Transform Economies

REFERENCES

- through Sustainable Development. Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda. pp. 9. [online], available: http://www.un.org/sg/management/pdf/HLP_P2015_Report.pdf. [accessed: 1 November 2015].
- (2014). A World that Counts: Mobilising the Data Revolution for Sustainable Development. Report prepared by Independent Expert Advisory Group on the Data Revolution for Sustainable Development. available: <http://www.udatarevolution.org/wp-content/uploads/2014/11/A-World-That-Counts.pdf>. [accessed: 1 November 2015].
- (2015a). The 2015 Millennium Development Goals Report 2015. pp.61. ISBN 978-92-1-101320-7.
- (2015b). Interactive dialogue 5: Building effective, accountable and inclusive institutions to achieve sustainable development. 70th Session High Level Week, available: <https://papersmart.unmeetings.org/ga/70th-session/70th-session-high-level-week-interactive-dialogue/interactivedialogue5/statements/>. [accessed: 1 November 2015].
- Van Heeke T., Baxandall P. and Surka M. (2015). 'Following the Money 2015, How the 50 States Rate in Providing Online Access to Government Spending Data', U.S. PIRG Education Fund and Frontier Group, [online], available: <http://www.uspirg.org/sites/pirg/files/reports/Following%20the%20Money%202015%20vUS.pdf>. [accessed: 1 November 2015].
- World Bank (2013a). 'Open Development and Aid Management in Malawi', [online], available: <http://www.worldbank.org/en/news/feature/2013/11/14/open-development-and-aid-management-in-malawi>. [accessed: 1 November 2015].
- (2013b). 'Open Data in 60 Seconds', [online], available: <http://opendatatoolkit.worldbank.org/en/open-data-in-60-seconds.html>. [accessed: 1 November 2015].
- (2014). 'Open Data for Economic Growth', [online], available: <http://www.worldbank.org/content/dam/Worldbank/document/Open-Data-for-Economic-Growth.pdf>. [accessed: 1 November 2015].
- (2015). 'Transport ICT: Open Data for Sustainable Development', available: <http://pubdocs.worldbank.org/pubdocs/publicdoc/2015/8/999161440616941994/Open-Data-for-Sustainable-Development.pdf>. [accessed: 1 November 2015].
- Wu, Hongbo (2015). "Development cooperation for a new era: Making the renewed global partnership for sustainable development a reality". Closing statement to the DCF Uganda High-Level symposium, 6 November 2015, Kampala, Department of Economic and Social Affairs, available: <https://www.un.org/development/desa/statements/mr-wu/2015/11/dcf-uganda-hl-symposium.html>. [accessed: 1 November 2015].

Chapter 3

Austria Parliament (2014). 'Petition regarding financial issues of the nation', [online], available: http://www.parlament.gv.at/PAKT/VHG/XXV/SPET/SPET_00007/imfname_352653.pdf. [accessed 12 November].

Bach, J., Stark, D. and United Nations Research Institute for Social Development (2003). Technology and Transformation: facilitating knowledge networks in Eastern Europe. United Nations Research Institute for Social Development, [online], available: [http://www.unrisd.org/80256B3C005BCCF9/\(httpPublications\)/35352D4B078518C0C1256BDF0049556C?OpenDocument](http://www.unrisd.org/80256B3C005BCCF9/(httpPublications)/35352D4B078518C0C1256BDF0049556C?OpenDocument). [accessed: 1 November 2015].

Collins, L., Swart, R. and Zhang, B. (2013). The Rise of Future Finance: The UK Alternative Finance Benchmarking Report. London: Cambridge University and Berkeley University.

De Cindio, F. and Stortone, S. (2013). 'Experimenting liquidfeedback for online deliberation in civic contexts'. In Electronic Participation (pp. 147-158). Berlin Heidelberg: Springer. ISBN 978-3-642-40346-0.

European Commision (2009). European eParticipation Summary Report , [online], available: <https://joinup.ec.europa.eu/community/epractice/document/eu-european-eparticipation-summary-report>. [accessed: 1 November 2015].

(2010). 'The European eGovernment Action Plan 2011-2015: Harnessing ICT to promote smart, sustainable & innovative Government', [online], available: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0743:FIN:EN:PDF>. [accessed: 30 November 2015].

———(2015a). 'eGovernment Action Plan 2016-2020', [online], available: http://ec.europa.eu/smartregulation/roadmaps/docs/2016_cnect_006_e_government_action_plan_en.pdf .[accessed 10 December, 2015].

——— (2015b). 'Digital Agenda in the Europe 2020 Strategy', [online], available: <https://ec.europa.eu/digital-agenda/en/digital-agenda-europe-2020-strategy>. [accessed: 30 November 2015].

Fischer, Frank., Gottweis, Herbert (eds) (2012). The Argumentative Turn Revisited: Public Policy as Communicative Practice. Durham and London : Duke University Press. ISBN:978-0-8223-5263-1.

German Parliament (2015) . 'E-petition System', [online], available : <https://epetitionen.bundestag.de/epet/petuebersicht/mz.nc.html>. [accessed 12 November, 2015]

GroundTruth Initiative, LLC (2016). [online], available: <http://groundtruth.in/2014/03/25/open-community-collaborative-data-for-land-rights-and-tenure> [accessed 30 November, 2015].

Jarmo Eskelinen, Ana García Robles, Ilari Lindy, Jesse Marsh, Arturo Muente-Kunigami (2015). Citizen-Driven Innovation: A guidebook for city mayors and public administrators. Written in a collaboration between the World Bank and the European Network of Living Labs, [online] , available : http://openlivinglabs.eu/sites/enoll.org/files/Citizen_Driven_Innovation_Full%284%29.pdf. [accessed 20 November, 2015].

Lee, D., Loutas, N., Sanchez-Nielsen, E., Mogulkoc, E. and O. Lacigova (2011). 'Inform-Consult-Empower: A Three-Tired Approach to eParticipation' . Electric Participation, pp. 121-132. IFIP International Federation for Information Processing, [online], avaible: http://link.springer.com/chapter/10.1007%2F978-3-642-23333-3_11. [accessed 29 November 2015].

REFERENCES

- Macintosh, Ann (2004). 'Characterizing 'E-Participation in Policy Making'. In: 37th Annual Hawaii International Conference on System Sciences (HICSS), [online], available : <http://www.computer.org/csdl/proceedings/hicss/2004/2056/05/205650117a.pdf>. [accessed 1 November 2015]
- Macintosh, Ann (2006). eParticipation in policy-making. The research and the challenges, exploiting the knowledge economy: issues, applications, case studies. Amsterdam: IOS Press.
- Obi, T. (2010). The Innovative CIO and E-participation in E-government Initiatives (Vol. 3), IOS Press. ISBN: 9781607505044.
- OECD, Organisation for Economic Co-operation and Development (2001). Citizens as Partners: Information, Consultation and Public Participation in Policy-making. ISBN 92-64-19540-8 – No. 52151.
- (2004). Promise and Problems of e-Democracy: Challenges of Online Citizen Engagement. Paris: OECD. ISBN: 9789264019485.
- (2014). 'Recommendation of the Council on Digital Government Strategies Recommendation of the Council on Digital Government Strategies', [online], available:<http://www.oecd.org/gov/public-innovation/Recommendation-digital-government-strategies.pdf>. [accessed: 30 November 2015].
- OSMF, OpenStreetMap Foundation (2015). [online], available: <http://www.openstreetmap.org> . [accessed 30 November, 2015].
- Panopoulou, Eleni, Tambouris, Efthimios, Tarabanis, Konstantinos (2009). 'eParticipation initiatives: How is Europe progressing? ', European Journal of ePractice, No. 7, March 2009, [online], available: <http://www.epractice.eu/files/7.2.pdf>. [accessed : 30 November 2015].
- Sen, Amartya, (2004). Rationality and freedom. Cambridge, MA: The Belknap Press of Harvard University Press, p 289.
- UK Parliament, House of commons Procedure Committee (2014). 'E-petitions: a collaborative system'. Third Report of Session 2014–15, December 2014: pp 4. London: The Stationery Office.
- UNDESA, UN Department of Economic and Social Affairs (2012a). UNTT Report to the Secretary- General: Realizing the Future We Want For All, [online] ,available : http://www.un.org/en/development/desa/policy/untaskteam_undf/.[accessed: 1 November 2015].
- (2012b). 'Promoting people's empowerment in achieving poverty eradication, social integration and productive and decent work for all', Report of the Expert Group Meeting. [online], available : <http://www.un.org/esa/socdev/csocd/2013/egm-empowerment-final.pdf>. [accessed 25 January 2016].
- (2013). DPADM Concept paper 'Developing capacity for participatory governance through e-participation', [online], available: <http://workspace.unpan.org/sites/internet/Documents/CONCEPT%20PAPER%20e-Participation%2001.30.13.pdf>. [accessed: 1 November 2015].
- (2014). United Nations E-government Survey 2014: E-Government For the Future We Want. ISBN 978-92-1-123198-4.

——— (2015). MDG Gap Task Force Report 2015: Taking Stock of the Global Partnership for Development. ISBN: 978-92-1-101317-7.

——— (2016).‘Overview of the Report on the World Social Situation 2016’, [Online], available:<http://www.un.org/esa/socdev/documents/2016/RWSS2016ExecutiveSummary.pdf>. [accessed 1 November 2015] .

UNECE, The United Nations Economic Commission for Europe (1998). ‘Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters’.[online], available <http://live.unece.org/env/pp/treatytext.html>. [accessed 30 November 2015].

UN ECOSOC, United Nations Economic and Social Council (2013). ‘Promoting people’s empowerment in achieving poverty eradication, social integration and productive and decent work for all’, [online], available: http://www.un-ngls.org/IMG/pdf/CsocD_report.pdf. [accessed: 1 November 2015].

UN General Assembly (1995). Report of the World Summit for Social Development. A/CONF.166/9.

——— (2015a). Addis Ababa Action Agenda. The Third International Conference on Financing for Development. A/RES/69/313.

——— (2015b). The 2030 Agenda for Sustainable Development. A/RES/70/1.

——— (2015c). Promoting inclusive and accountable public services for sustainable development. A/RES/69/327.

Witters, L., Marom, R. and Steinert, K. (2012). ‘The role of public-private partnerships in driving innovation’. The Global Innovation Index.

World Bank, Information for Development Program (2013). ‘Crowdfunding’s Potential for the Developing World’, [online], available: http://infodev.org/infodev-files/wb_crowdfundingreport-v12.pdf. [accessed: 1 November 2015].

World Bank, World Development Report 2016, “Digital Dividends”.

Chapter 4

Abi Research Inc (2016). [Online], available: <https://www.abiresearch.com/press/more-than-30-billion-devices-will-wirelessly-conne/> [last accessed on 22 January, 2016].

Anderson. J, and Lee, R (2014). 'Main Report: An In-depth Look at Expert Responses', Washington: Pew Research Center on internet, science and technology, [Online], available: http://www.pewinternet.org/files/2014/05/PIP_Internet-of-things_0514142.pdf. [accessed 21 January 2016].

Andrew G., Rohit R. and Thongchie S. (2014). 'Coordinates for change: how GIS technology and geospatial analytics can improve city services', [online], available: http://www.mckinsey.com/client_service/public_sector/latest_thinking/government_designed_for_new_times. [accessed: 22 January, 2016].

Alan B., Mark T., Jerry F. (2014). Digitizing Government: Understanding and implementing new digital business models, [online], available: <http://www.palgrave.com/us/book/9781137443625> [last accessed on 22 January, 2016].

Anthony Wilhelm, A. G. (2004). Digital nation: toward an inclusive information society. Cambridge: MIT Press, [Online], available: <https://mitpress.mit.edu/books/digital-nation> [accessed: 22 January, 2016].

Aker, J and Fafchamps, M. (2010). 'How does Mobile Phone Coverage affect Farm-Gate prices? Evidence from West Africa', [online], available: <http://web.stanford.edu/~fafchamp/mobiles.pdf> . [accessed: 22 January, 2016].

Byrnjolfsson E and Andrew. M. (2014). The Second machine age (hard copy) ISBN-13: 978-0393239355.

Comin, D. and Bart H. (2011). 'Technology Diffusion and Postwar Growth', NBER Macroeconomics Annual 2010 ,Volume 25: 209-246, [online], available: <http://www.nber.org/chapters/c12030> [accessed: 22 January, 2016].

Comin, D. and Marti M. (2014). 'If Technology Has Arrived Everywhere, Why Has Income Diverged?', NBER Macroeconomics Annual 2014, [online], available: http://www.wipo.int/edocs/mdocs/mdocs/en/wipo_ip_econ_ge_2_14/wipo_ip_econ_ge_2_14_ref_comin.pdf. [accessed: 22 January, 2016].

Perez, C. (2004). Technological revolutions, paradigm shifts and socio-institutional change, [online], available: http://econpapers.repec.org/bookchap/elgeechap/1570_5f7.htm [accessed: 22 January 2016].

E.Reinert ed.(2004). Globalization, Economic Development and Inequality: An alternative Perspective. Cheltenham: Edward Elgar, pp. 217-242. ISBN: 1 85898 891 8, [online], available: <http://www.elgaronline.com/view/9781858988917.xml> [accessed: 22 January, 2016].

European Commission, Information Society and Media (2014). 'EU-China Joint White Paper on Internet-of-Things Identification, European Research Cluster on the Internet of Things', [online], available: <http://www.internet-of-things-research.eu/documents.htm>. [accessed: 22 January, 2016].

European Commission Internet-of-things-research (2016). IERC-European Research Cluster on the Internet of Things. [online], available : http://www.iot-a.eu/public/news/resources/EC_WS%20IOTA-IERC_Friess_291110.pdf. [accessed: 22 January, 2016].

European Commission (2015). 'Strategy Paper on a Digital Single Market', [online], available: <http://ec.europa.eu/priorities/digital-single-market/>. [accessed: 22 January, 2016].

Gartner Research, Inc (2013). [Online], available: <http://www.gartner.com/newsroom/id/2636073>. [accessed: 22 January, 2016].

GCC, Gulf Cooperation Council, e-Government Committee (2016). http://gccegov.org/en/web/guest/news_details?id=158305. [accessed: 27 January 2016].

Goya, Aparatija (2009). 'Policy Research working paper 5315', [online], available: <http://web.worldbank.org/archive/website01291/WEB/IMAGES/WPS5315.TXT>. [accessed: 1 November 2015].

Govdelivery (2013). 'The Transformative Power of Communications: Digital Communication Management for the Public Sector'. [online], available: http://www.govdelivery.com/pdfs/WP_DCM_power_of_communications.pdf. [accessed: 1 November 2015].

Guerrieri and Padoan (2007). 'Evaluation Models And Tools For Assessment Of Innovation And Sustainable Development At The EU Level', [online], available: https://ec.europa.eu/research/evaluations/pdf/archive/fp6-evidence-base/evaluation_studies_and_reports/evaluation_studies_and_reports_2006/evaluation_models_and_tools_for_assessment_of_innovation_and_sustainable_development_at_eu_level__2006.pdf. [accessed: 22 January, 2016].

OECD, The Organisation for Economic Co-operation and Development (2012). Report on Policies to Support Women's Entrepreneurship Development in the MENA Region, [online], available: http://www.oecd-ilibrary.org/industry-and-services/women-in-business/public-policy-and-women-s-entrepreneurship-in-the-mena-region_9789264179073-6-en. [accessed: 22 January 2016].

Ofcom (2015). 'Independent Regulator and Competition Authority of the United Kingdom and Northern Ireland Report', [online], available: <http://stakeholders.ofcom.org.uk/market-data-research/market-data/infrastructure/connected-nations-2015/>. [accessed: 1 November 2015].

Hafkin, N.J. and Huyer, S. (2006). Cinderella or cyberella? Empowering women in the knowledge society. Kumarian Press, ISBN: 1565492196, 220 pp. (abstract online – hard copy) http://www.jstor.org/stable/25548239?seq=1#page_scan_tab_contents [accessed: 22 January 2016].

Helbig, Gil-Garcia and Ferro (2005). 'Understanding the complexity of electronic government: implications from the digital divide literature', [online], available: http://www.enricoferro.com/amcis2005_final.pdf [accessed: 22 January, 2016].

Hilbert, M. (2011). 'The end justifies the definition: The manifold outlooks on the digital divide and their practical usefulness for policy-making', *Telecommunications Policy*, 35(8), pp.715-736. <http://www.sciencedirect.com/science/journal/03085961/35/8>.

Hilbert, M. (2011). 'Digital gender divide or technologically empowered women in developing countries? A typical case of lies, damned lies, and statistics', *Women's Studies International Forum* 34 (6). pp. 479-489 <http://www.sciencedirect.com/science/journal/02775395/34/6>. [accessed: 22 January 2016].

Hana, Nagy (2010). Transforming government and building the information society, challenges and opportunities for developing countries. (Hard copy) <http://www.springer.com/fr/book/9781441911841>

REFERENCES

- Hana, Nagy(2010). Enabling Enterprise Transformation: Businesses and Grassroots Innovation for Knowledge Economy, [online], available: <http://www.springer.com/us/book/9781441915078> [accessed: 22 January 2016].
- Japan, Government Portal (2016). <http://www.data.go.jp/?lang=english>. [accessed: 27 January 2016].
- Takashi, Y & Megumi, M (2006). 'The impacts of mobile phone coverage expansion on market participants –panel data evidence from Uganda', [online], available: https://www.researchgate.net/publication/46507255_The_Impact_of_Mobile_Phone_Coverage_Expansion_on_Market_Participation_Panel_Data_Evidence_from_Uganda . [accessed: 22 January, 2016].
- Kaliannan M., Murali R., and Magiswary D. (2010). 'Assessing E-Government Services: The Case Of E-Filing Of Personal Income Tax In Malaysia', In Citizens and E-Government: Evaluating Policy And Management. [Online], available: <http://www.irma-international.org/viewtitle/42564/>. [accessed: 22 January 2016].
- Klapper, Degado and Lewin (2009). 'The impacts of business environment on the business creation processes', [online], available: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1407955. [accessed: 22 January 2016].
- Norris, Pipa (2002). 'Digital Divide Civic Engagement, Information Poverty and the Internet Worldwide [online], available: <http://www.cambridge.org/US/academic/subjects/politics-international-relations/comparative-politics/digital-divide-civic-engagement-information-poverty-and-internet-worldwide>. [accessed: 22 January 2016].
- International Privacy Conference, Data protection Office (2014). 'Mauritius Declaration on the Internet of Things and data protection', [online], available: <http://www.privacyconference2014.org/media/16596/Mauritius-Declaration.pdf>. [accessed: 1 November 2015].
- Mehra al. (2004). 'The internet for empowerment of minority and marginalized users', Sage Publications London, Thousand Oaks, CA and New Delhi Vol 6(6):781–802. [Online], available: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.115.4911&rep=rep1&type=pdf> . [accessed: 1 November 2015].
- McKinsey & Company (2014). Government designed for new time .Volume 2. [Online], available: http://www.mckinsey.com/client_service/public_sector/latest_thinking/government_designed_for_new_times. [accessed: 1 November 2015].
- McKinsey&Company (2011). System Analysis and Design: People, processes and projects. ISBN-13: 978-0765623539.
- Radikati Group (2015). Email Statistics Report, 2015-2019. [Online], available: <http://www.radicati.com/wp/wp-content/uploads/2015/02>Email-Statistics-Report-2015-2019-Executive-Summary.pdf>. [accessed: 22 January 2016].
- Reddick, Christopher (2010). Citizens and E-Government: Evaluating Policy and Management , [online], available : <http://www.irma-international.org/book/citizens-government-evaluating-policy-management/37314/>. [accessed: 22 January, 2016].
- Korea (2016). Government portal 'Government 3.0', [online], available: <http://www.gov30.go.kr/gov30/index.do>. [accessed: 27 January 2016].

Servon, Lisa (2002). 'Bridging Digital Divide: Technology, Community and Public Policy', New School University, [online], available: <http://www.newschool.edu/uploadedFiles/Milano/Academics/Faculty/bridgingthegap.pdf?n=7981>. [accessed: 22 January 2016]

Vermessan & Friess, (2015). 'Building the Hyper-connected Society: Internet of Things Research and Innovation Value Chains, ecosystems and markets', [online], available: http://www.internet-of-things-research.eu/pdf/Building_the_Hyperconnected_Society_IERC_2015_Cluster_eBook_978-87-93237-98-8_P_Web.pdf. [accessed: 22 January 2016].

Wilhelm, A. G. (2004). Digital nation: toward an inclusive information society. Cambridge: MIT Press. [online], available: <https://mitpress.mit.edu/books/digital-nation> [accessed: 22 January 2016].

UN General Assembly (2015). 'Outcome document of the high-level meeting of the General Assembly on the overall review of the implementation of the outcomes of the World Summit on the Information Society', 15-21917 (E) 151215. [online], available: <http://workspace.unpan.org/sites/Internet/Documents/UNPAN95735.pdf>. [accessed: 1 November 2015].

UN-GGIM, United Nations Committee of Experts on Global Geospatial Information management (2014). Beijing Declaration,[online], available:<http://ggim.un.org/docs/meetings/3rd%20HOF.COM%20Declaration%202024Oct2014%20FINAL.pdf>. [accessed: 22 January 2016].

World Bank (2008). 'New Data on New Business Creation in 100 Countries', [online], available: <http://econ.worldbank.org/external/default/>

World Bank (2016). World Development Report 2016: Digital Dividends, [online], available: <http://www.worldbank.org/en/publication/wdr2016>. [accessed 12 January 2016].

ITU, International Telecommunication Union (2012a). Recommendation ITU-T Y. 2060-Overview of the Internet of Things, <http://www.itu.int/ITU-T/recommendations/rec.aspx?rec=Y.2060>.

———(2012b) Measuring the Information Society. [Online], available: https://www.itu.int/en/ITU-D/Statistics/Documents/BroadbandCommissionpublications/mis2012/MIS2012_without_Annex_4.pdf [accessed: 22 January, 2016].

———(2014) The State of Broadband 2014: broadband for all. ISBN 978-92-61-150716. [online], Available: <http://www.broadbandcommission.org/documents/reports/bb-annualreport2014.pdf>. [accessed: 1 November 2015].

———(2015) Figures and facts: The World in 2015, [online], available: <https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2015.pdf>. [accessed: 22 January 2016].

ITU, International Telecommunication Union and UNESCO, United Nations Educational, Scientific and Cultural Organization (2015). The State of Broadband 2015, [online], available: <http://www.broadbandcommission.org/documents/reports/bb-annualreport2015.pdf>. [accessed: 1 November 2015].

Chapter 5

- Agcpora, Therese (2015). 'South Korea to Move 750 E-Government Services to loud Computing by 2017 for Improved and Cost-Efficient Public Service', Korea Portal, available: <http://en.koreaportal.com/articles/4349/20151113/south-korea-move-750-e-government-services-cloud-computing-2017.htm>. [accessed: 1 December 2015].
- Berriman, Frances (2012). 'Using HTML5 for Gov.UK', Blog, Government Digital Service, United Kingdom, [online], available: <https://gds.blog.gov.uk/2012/02/10/using-html5-for-gov-uk/>. [accessed 1 November 2015].
- Christensen, Clayton M. (1995). *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Boston, Massachusetts: Harvard Business Review Press.
- Dunlevy, Fiona (2015). 'Crowdsourcing France's New Digital Law', Euro Scientist, [online], available: <http://www.euroscientist.com/crowdsourcing-frances-new-digital-law/>. [accessed: 30 November 2015].
- Estonian ICT Demo Center (2012). 'E-Estonia - the Digital Society', e-estonia.com, [online], available: https://ccdcoc.org/cycon/2012/workshops/e-Estonia_03.2012.pdf. [accessed: 1 November 2015].
- European Commission (2015). 'Digital Agenda in the Europe 2020 Strategy', [online], available: <https://ec.europa.eu/digital-agenda/en/digital-agenda-europe-2020-strategy>. [accessed: 30 November 2015].
- Foreshew-Cain, Stephen (2015). 'How Digital and Technology Transformation Saved £1.7bn Last Year', Blog, Government Digital Service, United Kingdom, [online], available: <https://gds.blog.gov.uk/2015/10/23/how-digital-and-technology-transformation-saved-1-7bn-last-year/>. [accessed: 1 November 2015].
- GCC, Gulf Cooperation Council (2015). 'About the GCC Egovernment Award', The Portal of the Cooperation Council for the Arab States of the Gulf, [online], available: <http://gccegov.org/en/web/guest/award>. [accessed: 1 November 2015].
- Government of Bangladesh (2015). Statement delivered by H.E. Mrs. Sheikh Hasina, Prime Minister, Bangladesh, at the 68th Session of the United Nations General Assembly, September 2013.
- Government of Barbados, Data Processing Department (2015). 'Big - Barbados Integrated Government', [online], available: <https://www.gov.bb/home/?p=home>. [accessed: 1 November 2015].
- Government of China, Zhejiang Government Affairs Service (2015). 'Zhejiang One-Stop Portal'. Zhejiang Government, [online], available: <http://www.zjzwfw.gov.cn/>. [accessed: 1 November 2015].
- Government of Ethiopia, Ministry of Communication and Information Technology (2015). 'The Ethiopian E-Government Strategy', [online], available: <http://www.mcit.gov.et/web/english/egovernment-strategy>. [accessed: 1 November 2015].
- Government of Dominica, Information and Communication Technology Unit, Establishment Personnel and Training Department (2015a). 'Government of Dominica Internal Directory Mobile App', [online], available: <https://play.google.com/store/apps/details?id=ict.unit.dominicagid&hl=en>. [accessed: 1 November 2015].

Government of Dominica (2015b). 'Online Services, Government of the Commonwealth of Dominica', Web Portal, [online], available: <http://www.dominica.gov.dm/services>. [accessed: 1 November 2015].

GovInsider (2015). 'Malaysia closing half of all government websites: government looking to provide citizens with easier access to digital services', [online], available: <https://govinsider.asia/digital-gov/malaysia-to-shut-down-750-government-websites/>. [accessed: 1 November 2015].

Iglauer, Philip (2015). 'South Korea to Move 60% of E-Government Services to Cloud by 2017', ZDNet, 10 November 2015, [online], available: <http://www.zdnet.com/article/south-korea-to-move-60-of-e-government-services-to-cloud-by-2017/>. [accessed: 30 November 2015].

ITU, International Telecommunication Union (2015). Measuring the Information Society Report 2015. ISBN 978-92-61-15791-3.

Lee, Young Bum (2014). E-Government for Promoting Sustainable Development in Small Island Developing States (SIDS) - Background Paper for the Special Event of the 69th Session of the United Nations General Assembly Second Committee, [online], available: <http://workspace.unpan.org/sites/Internet/Documents/UNPAN93784.pdf> [accessed: 1 November 2015].

Ming A., Awan O. and Somani N. (2013). E-Governance in Small States. London: Commonwealth Secretariat.

Ndilula, Ndeshipanda C.(2015). 'Namibia: The E-Government Project - a Reform Initiative', AllAfrica, 6 November 2015, [online], available: <http://allafrica.com/stories/201511061580.html>. [accessed: 15 November 2015].

Partnership on Measuring ICT for Development (2014). Final WSIS Targets Review: Achievements, Challenges and the Way Forward. [online], available: http://www.itu.int/en/ITU-D/Statistics/Documents/publications/wsrisreview2014/WSIS2014_review.pdf. ISBN 978-92-61-14871-3 [accessed: 1 November 2015].

Pop, Valenitna (2015). 'Interview of Andrus Ansip: You can't use 18th century law for a digital world', EUobserver, 26 February 2015, [online], available: <https://euobserver.com/economic/127800>. [accessed: 1 November 2015].

Schwab K. and Sala-i-Martín X. (2015). The Global Competitiveness Report 2015-2016. Geneva: World Economic Forum. ISBN-13: 978-92-95044-99-9. [online], available: http://www3.weforum.org/docs/gcr/2015-2016/Global_Competitiveness_Report_2015-2016.pdf. [accessed: 1 November 2015].

The White House, United States (2009). 'Remarks by the President on Securing Our Nation's Cyber Infrastructure', [online], available: <http://www.whitehouse.gov/the-press-office/remarks-president-securing-our-nations-cyber-infrastructure>. [accessed: 15 November 2015].

Transparency International (2014). '2014 Corruption Perception Index', Transparency International, [online], available: <https://www.transparency.org/cpi2014>. [accessed: 1 November 2015].

UN General Assembly (2011). Programme of Action for the Least Developed Countries for the Decade 2011-2020, Istanbul, May 2011. A/CONF.219/3/Rev.1.

——— (2014a). Promoting Inclusive and Accountable Public Services for Sustainable Development. A/RES/69/327.

REFERENCES

- (2014b). Follow-up to the Fourth United Nations Conference on the Least Developed Countries. A/RES/69/231.
- (2014c). SIDS Accelerated Modalities of Action (Samoa) Pathway. A/RES/69/15.
- (2014c). Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda). A/RES/69/313.
- (2015a). The 2030 Agenda for Sustainable Development. A/RES/70/1.
- (2015b). Outcome Document of the High-Level Meeting of the General Assembly on the Overall Review of the Implementation of the Outcomes of the World Summit on the Information Society. A/RES/70/125.
- UNDESA, UN Department of Economic and Social Affairs, and ASPA, American Society for Public Administration (2002). Benchmarking E-Government: A Global Perspective - Assessing the progress of the UN Member States.
- UNDESA, UN Department of Economic and Social Affairs (2001). '3rd Global Forum on Reinventing E-Government', [online], available: <https://publicadministration.un.org/en/3rdglobalforum>. [accessed: 30 November 2015].
- (2003). World Public Sector Report: E-Government at the Crossroads. ST/ESA/PAD/SER.E/49.
- (2004). United Nations Global E-Government Readiness Report 2004 : Towards Access for Opportunity.
- (2005). United Nations Global E-Government Readiness Report 2005: From E-Government to E-Inclusion. ST/ESA/PAD/SER.E/90.
- (2008). United Nations E-Government Survey 2008: From E-Government to Connected Governance. ST/ESA/PAD/SER.E/112.
- (2010). United Nations E-Government Survey 2008: Leveraging E-Government at a Time of Financial and Economic Crisis. ST/ESA/PAD/SER.E/131.
- (2012). United Nations E-Government Survey 2012: E-Government for the People. ST/ESA/PAS/SER.E/150.
- (2014). United Nations E-Government Survey 2014: E-Government for the Future We Want. ST/ESA/PAD/SER.E/188
- (2015a). Report of the Expert Group Meeting: E-Government for Sustainable Development. Division for Public Administration and Development Management, UNDESA, 16-17 March 2015. ST/ESA/PAD/SER.E/205.
- (2015b). World Population 2015 Wallchart. [online], available: http://esa.un.org/unpd/wpp/Publications/Files/World_Population_2015_Wallchart.pdf. ST/ESA/SER.A/378.
- UNDP, United Nations Development Programme (2015). 2015 Human Development Report. ISBN 978-92-1-126398-5.

UNECA, United Nations Economic Commission for Africa (2014). Manual for Measuring E-Government, [online], available: https://www.itu.int/en/ITU-D/Statistics/Documents/partnership/eGovernment_Manual_Final_2014.pdf. [accessed: 1 November 2015].

UN General Assembly (2011). Programme of Action for the Least Developed Countries for the Decade 2011-2020 . A/CONF.219/3/Rev.1.

——— (2014a). Promoting Inclusive and Accountable Public Services for Sustainable Development. A/RES/69/327.

——— (2014b). Follow-up to the Fourth United Nations Conference on the Least Developed Countries. A/RES/69/231.

——— (2014c). SIDS Accelerated Modalities of Action (Samoa) Pathway. A/RES/69/15.

——— (2014c). Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda). A/RES/69/313.

——— (2015a). The 2030 Agenda for Sustainable Development. A/RES/70/1.

——— (2015b). Outcome Document of the High-Level Meeting of the General Assembly on the Overall Review of the Implementation of the Outcomes of the World Summit on the Information Society. A/RES/70/125.

United Nations (2003). Geneva Plan of Action. World Summit on the Information Society, [online], available: <http://www.itu.int/net/wsis/docs/geneva/official/poa.html>, WSIS-03/Geneva/Doc/5-E. [accessed: 1 November 2015].

——— (2015). WSIS-SDG Matrix: Linking WSIS Action Lines with Sustainable Development Goals. Geneva: WSIS Forum, 25-29 May 2015.

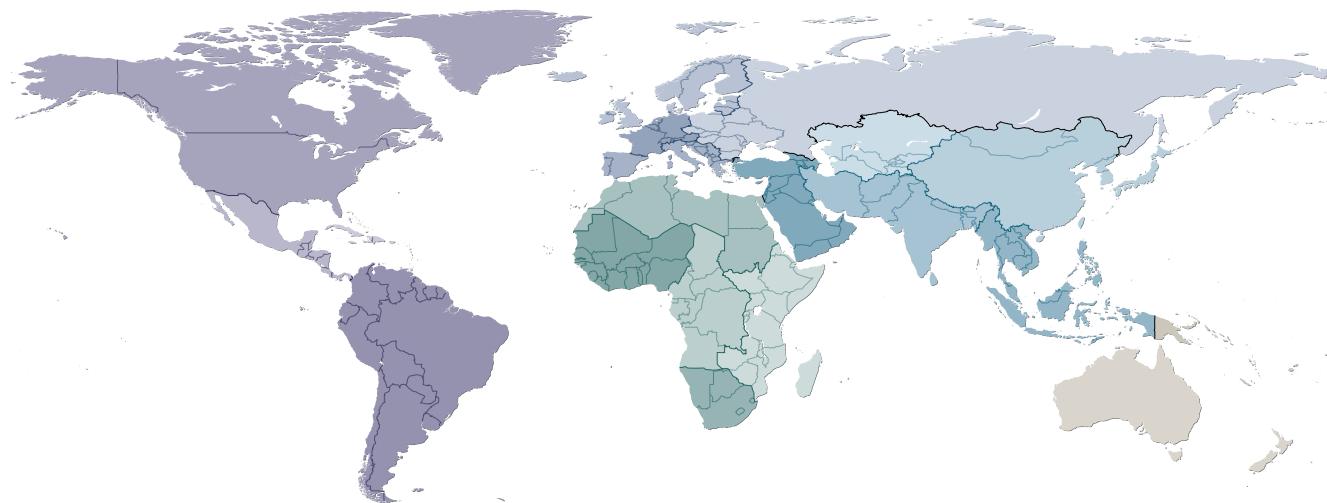
Verhulst S. (2012). 'UK Government: Digital by Default', Govlab, [online], available: <http://thegovlab.org/uk-government-digital-by-default/>. [accessed: 1 November 2015].

Vietnamnet Bridge (2015). 'E-Government Status and Future Actions', [online], available: <http://english.vietnamnet.vn/fms/government/144912/e-government-status-and-future-actions.html>. [accessed: 1 November 2015].

World Bank (2015). 'Definition of E-Government', [online], available: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/EXTGOVERNMENT/0,,contentMDK:20507153~menuPK:702592~pagePK:148956~piPK:216618~theSitePK:702586,00.html>. [accessed: 1 November 2015].

World Bank (2015). 'Estonia ICT Day, Smart Digital Solutions for Sustainable Development', [online], available: <http://www.worldbank.org/en/events/2015/09/28/Estonia-ict-day-2#1>. [accessed: 1 November 2015].

Map 9.1 Regional groupings



Americas	Europe	Africa	Asia	Oceania
Caribbean <ul style="list-style-type: none"> Antigua and Barbuda Bahamas Barbados Cuba Dominica Dominican Republic Grenada Haiti Jamaica Saint Kitts and Nevis Saint Lucia Saint Vincent and the Grenadines Trinidad and Tobago 	Eastern Europe <ul style="list-style-type: none"> Belarus Bulgaria Czech Republic Hungary Poland Republic of Moldova Romania Russian Federation Slovakia Ukraine Northern Europe <ul style="list-style-type: none"> Denmark Estonia Finland Iceland Ireland Latvia Lithuania Norway Sweden United Kingdom of Great Britain and Northern Ireland 	Eastern Africa <ul style="list-style-type: none"> Burundi Comoros Djibouti Eritrea Ethiopia Kenya Madagascar Malawi Mauritius Mozambique Rwanda Seychelles Somalia South Sudan Uganda United Republic of Tanzania Zambia Zimbabwe Middle Africa <ul style="list-style-type: none"> Angola Cameroon Central African Republic Chad Congo Democratic Republic of the Congo Equatorial Guinea Gabon São Tomé and Príncipe Southern Africa <ul style="list-style-type: none"> Botswana Lesotho Namibia South Africa Swaziland Western Africa <ul style="list-style-type: none"> Benin Burkina Faso Cape Verde Côte d'Ivoire Gambia Ghana Guinea Guinea-Bissau Liberia Mali Mauritania Niger Nigeria Senegal Sierra Leone Togo 	Central Asia <ul style="list-style-type: none"> Kazakhstan Kyrgyzstan Tajikistan Turkmenistan Uzbekistan Eastern Asia <ul style="list-style-type: none"> China Democratic People's Republic of Korea Japan Mongolia Republic of Korea Southern Asia <ul style="list-style-type: none"> Afghanistan Bangladesh Bhutan India Iran (Islamic Republic of) Maldives Nepal Pakistan Sri Lanka South-Eastern Asia <ul style="list-style-type: none"> Brunei Darussalam Cambodia Indonesia Lao People's Democratic Republic Malaysia Myanmar Philippines Singapore Thailand Timor-Leste Viet Nam Western Asia <ul style="list-style-type: none"> Armenia Azerbaijan Bahrain Cyprus Georgia Iraq Israel Jordan Kuwait Lebanon Oman Qatar Saudi Arabia Syrian Arab Republic Turkey United Arab Emirates Yemen 	Australia and New Zealand <ul style="list-style-type: none"> Australia New Zealand Melanesia <ul style="list-style-type: none"> Fiji Papua New Guinea Solomon Islands Vanuatu Micronesia <ul style="list-style-type: none"> Kiribati Marshall Islands Micronesia (Federated States of) Nauru Palau Polynesia <ul style="list-style-type: none"> Samoa Tonga Tuvalu
Central America <ul style="list-style-type: none"> Belize Costa Rica El Salvador Guatemala Honduras Mexico Nicaragua Panama 	Southern Europe <ul style="list-style-type: none"> Albania Andorra Bosnia and Herzegovina Croatia Greece Italy Malta Montenegro Portugal San Marino Serbia Slovenia Spain TFYRO Macedonia 	Northern Africa <ul style="list-style-type: none"> Algeria Egypt Libya Morocco Sudan Tunisia 		
Northern America <ul style="list-style-type: none"> Canada United States of America 				
South America <ul style="list-style-type: none"> Argentina Bolivia (Plurinational State of) Brazil Chile Colombia Ecuador Guyana Paraguay Peru Suriname Uruguay Venezuela (Bolivarian Republic of) 				

Disclaimer: The designations nations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The United Nations E-Government Survey presents a systematic assessment of the use of Information and Communication Technologies (ICTs) to transform the public sector by enhancing its efficiency, effectiveness, transparency, inclusiveness and supporting access to public services and citizen participation. The Survey examines emerging e-government issues and trends, and innovative practices that are relevant to the international community. By studying broad patterns of e-government around the world, the Survey assesses the e-government development status of the 193 United Nations Member States. It serves as a tool for decision-makers to identify their areas of strength and challenges in e-government to inform policies and strategies. It supports countries' efforts to provide inclusive and equitable electronic and mobile services to all and bridge the digital divide.

The 2016 E-Government Survey entitled "E-Government in Support of Sustainable Development" is issued at the time when countries are moving towards localizing and implementing the Sustainable Development Goals (SDGs). Governments, together with the private sector and civil society, will play a central role in the implementation of the 2030 Agenda for Sustainable Development. The 2016 Survey provides new evidence and new analysis to reflect on the potential of e-government to support the implementation of the Agenda and the 17 SDGs that are at its core. It looks at how e-government can facilitate integrated policies and services across the three dimensions of sustainable development; it highlights how opening up government data can promote effective, accountable

and transparent institutions; it examines how e-participation can strengthen participatory decision-making and service delivery; it reports on progress made in the provision of electronic and mobile services and focuses on the importance of bridging divides. Overall, the Survey highlights a positive global trend towards higher levels of e-government development as countries in all regions are increasingly embracing innovation and utilizing ICTs to deliver services and engage people in decision-making processes. It underscores that one of the most important new trends is the advancement of people-driven services, i.e. services that reflect people's needs and are driven by them. At the same time, disparities remain within and among countries. Lack of access to technology, poverty and inequality prevent people from fully taking advantage of the potential of ICTs and e-government for sustainable development. For e-government to effectively support the implementation of the SDGs, it will need to be guided by the principles and goals of the 2030 Agenda. It is essential to ensure that the overarching objective of poverty eradication and "Leaving No One Behind", a key principle of the 2030 Agenda, are at the core of all efforts to mobilize ICT to realize the transformation the 2030 Agenda demands.

The United Nations E-Government Survey is a product of the United Nations Department of Economic and Social Affairs. The Department, through its Division for Public Administration and Development Management, has published this world report on e-government since 2003 and is regularly called upon to provide its expertise on how to expand the use of information and communication technologies in government to advance the internationally-agreed development goals.

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