SDG indicator metadata

(Harmonized metadata template - format version 1.1)

0. Indicator information (SDG_INDICATOR_INFO)

0.a. Goal (SDG_GOAL)

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

0.b. Target (SDG_TARGET)

Target 4.4: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

0.c. Indicator (SDG_INDICATOR)

Indicator 4.4.1: Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill

0.d. Series (SDG_SERIES_DESCR)

Proportion of youth andadults with information and communications technology (ICT) skills by type of skill (%)

0.e. Metadata update (META_LAST_UPDATE)

2023-03-31

0.f. Related indicators (SDG_RELATED_INDICATORS)

4.5.1, 9.c.1, 17.6.1, 17.8.1

0.g. International organisations(s) responsible for global monitoring (SDG_CUSTODIAN_AGENCIES)

International Telecommunication Union (ITU)

1. Data reporter (CONTACT)

1.a. Organisation (CONTACT_ORGANISATION)

International Telecommunication Union (ITU)

2. Definition, concepts, and classifications (IND_DEF_CON_CLASS)

2.a. Definition and concepts (STAT_CONC_DEF)

Definition:

The proportion of youth and adults with Information and Communications Technology (ICT) skills, by type of skill defined as the percentage of individuals that have undertaken certain ICT-related activities in the last 3 months. The indicator is expressed as a percentage.

Concepts:

The indicator on the proportion of individuals with ICT skills, by type of skills refers to individuals that have undertaken certain activities in the last three months. (Please note however, that until 2019 this data refer to computer-related activities and response categories, as explained below.)

Computer-related activities to measure ICT skills are as follows:
• Copying or moving a file or folder
• Using copy and paste tools to duplicate or move information within a document
• Sending e-mails with attached files (e.g. document, picture, video)
• Using basic arithmetic formulas in a spreadsheet
• Connecting and installing new devices (e.g. a modem, camera, printer)
• Finding, downloading, installing and configuring software
• Creating electronic presentations with presentation software (including images, sound, video or charts)
• Transferring files between a computer and other devices
• Writing a computer program using a specialized programming language

A computer refers to a desktop computer, a laptop (portable) computer or a tablet (or similar handheld computer). It does not include equipment with some embedded computing abilities, such as smart TV sets, and devices with telephony as their primary function, such as smartphones.

Most individuals will have carried out more than one activity and therefore multiple responses are expected. The tasks are broadly ordered from less complex to more complex, although there is no requirement for a respondent to select simpler tasks before selecting a more complex task.

From 2020, the data refer to skills irrespective of the device used. The new skills categories are:
• Using copy and paste tools to duplicate or move data, information and content in digital environments (e.g. within a document, between devices, on the cloud)
• Sending messages (e.g. e-mail, messaging service, SMS) with attached files (e.g. document, picture, video)
• Using basic arithmetic formulae in a spreadsheet
• Connecting and installing new devices (e.g. a modem, camera, printer) through wired or wireless technologies
• Finding, downloading, installing and configuring software and apps
• Creating electronic presentations with presentation software (including text, images, sound, video or charts)
• Transferring files or applications between devices (including via cloud-storage)
• Setting up effective security measures (e.g. strong passwords, log-in attempt notification) to protect devices and online accounts
• Changing privacy settings on your device, account or app to limit the sharing of personal data and information (e.g. name, contact information, photos)
• Verifying the reliability of information found online
• Programming or coding in digital environments (e.g. computer software, app development)

2.b. Unit of measure (UNIT_MEASURE)

Percent (%)

2.c. Classifications (CLASS_SYSTEM)

Activities are classified according to agreement at the Expert Group meeting on information and communications technology (ICT) Household Indicators (EGH).

Furthermore, for countries that collect this data through an official survey, and if data allow breakdown and disaggregation, the indicator can be broken down by region (urban/rural), by sex, by age group, by educational level (ISCED), by labour force status (ILO), and by occupation (ISCO). International Telecommunication Union (ITU) collects data for all of these breakdowns from countries.

3. Data source type and data collection method (SRC_TYPE_COLL_METHOD)

3.a. Data sources (SOURCE_TYPE)

Countries can collect data on this indicator through national household surveys. Data for different countries are compiled by the International Telecommunication Union (ITU).

3.b. Data collection method (COLL_METHOD)

Data for different countries are compiled and provided by the International Telecommunication Union (ITU).

3.c. Data collection calendar (FREQ_COLL)

Various. Each survey has its own data collection cycle. The International Telecommunication Union (ITU) collects data twice a year from Member States, in Q1 and in Q3.

3.d. Data release calendar (REL_CAL_POLICY)

The International Telecommunication Union (ITU) releases data twice per year on ICT skills.

3.e. Data providers (DATA_SOURCE)

Bodies responsible for conducting household surveys (including National Statistical Offices and Government Ministries) in which information on the use of ICT skills is collected. Data is compiled by the International Telecommunication Union (ITU).

3.f. Data compilers (COMPILING_ORG)

International Telecommunication Union (ITU)

3.g. Institutional mandate (INST_MANDATE)

As the United Nations (UN) specialized agency for ICTs, the International Telecommunication Union (ITU) is the official source for global ICT statistics, collecting ICT data from its Member States.

4. Other methodological considerations (OTHER_METHOD)

4.a. Rationale (RATIONALE)

ICT skills determine the effective use of information and communication technology, so this indicator may therefore assist in making the link between ICT usage and impact. The lack of such skills continues to

be one of the key barriers keeping people from fully benefitting from the potential of information and communication technologies. These data may be used to inform targeted policies to improve ICT skills, and thus contribute to an inclusive information society.

This is also a core indicator of the Partnership on Measuring ICT for Development's Core List of Indicators, which has been endorsed by the UN Statistical Commission (in 2020).

4.b. Comment and limitations (REC_USE_LIM)

This indicator is relatively new but based on an internationally-agreed definition and methodology, which have been developed under the coordination of International Telecommunications Union (ITU), through its Expert Groups and following an extensive consultation process with countries. It was also endorsed by the UN Statistical Commission in 2014[1], and again in 2020.

The indicator is based on the responses provided by interviewees regarding certain activities that they have carried out in a reference period of time. However, it is not a direct assessment of skills nor do we know if those activities were undertaken effectively.

4.c. Method of computation (DATA_COMP)

This indicator is calculated as the proportion of in-scope who have carried out each activity in the past 3 months, regardless of where that activity took place. The indicator is expressed as a percentage.

$$[(number\ of\ in-scope\ individuals\ by\ type\ of\ skills)$$
$$/(number\ of\ in-scope\ individuals)] * 100$$

Figures supplied are expressed as a proportion of the in-scope population.

4.d. Validation (DATA_VALIDATION)

Data are submitted by Member States to the International Telecommunication Union (ITU). ITU checks and validates the data, in consultation with the Member States.

4.e. Adjustments (ADJUSTMENT)

No adjustments are made to the data submitted by countries.

4.f. Treatment of missing values (i) at country level and (ii) at regional level (IMPUTATION)

- **At country level**

None by data compiler.

- **At regional and global levels**

None by data compiler.

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[1] As one of the Core List of Indicators of the Partnership on Measuring ICT for Development.

4.g. Regional aggregations (REG_AGG)

Regional and global aggregates are not currently available for this indicator.

4.h. Methods and guidance available to countries for the compilation of the data at the national level (DOC_METHOD)

International Telecommunication Union (ITU) Manual for Measuring Information and Communications Technology (ICT) Access and Use by Households and Individuals 2020:
https://www.itu.int/en/ITU-D/Statistics/Pages/publications/manual.aspx

4.i. Quality management (QUALITY_MGMNT)

Data are checked and validated by the ICT Data and Analytics (IDA) Division of the International Telecommunication Union (ITU). Countries are contacted to clarify and correct their submissions.

4.j Quality assurance (QUALITY_ASSURE)

The guidelines of the Manual for Measuring ICT Access and Use by Households and Individuals 2020 are followed.

4.k Quality assessment (QUALITY_ASSMNT)

The guidelines of the Manual for Measuring ICT Access and Use by Households and Individuals 2020 are followed.

5. Data availability and disaggregation (COVERAGE)

Data availability:
Overall, the indicator is available for more than 90 countries from at least one survey.

Time series:
2005 onwards

Disaggregation:
Since data for the indicator on the proportion of individuals with ICT skills, by type of skills are collected through a survey, classificatory variables for individuals can provide further information on the differences in ICT skills among men/women, children/adults (age groups), employed/unemployed, etc., according to national requirements These data may be used to inform targeted policies to improve ICT skills, and thus contribute to the development of an inclusive information society.

6. Comparability / deviation from international standards (COMPARABILITY)

Sources of discrepancies:
None

7. References and Documentation (OTHER_DOC)

URL:

International Telecommunication Union:
https://www.itu.int/en/ITU-D/Statistics/Pages/default.aspx

References:

ITU Manual for Measuring ICT Access and Use by Households and Individuals 2020:
https://www.itu.int/en/ITU-D/Statistics/Pages/publications/manual.aspx