Photo: Electronically supported learning, Dag Roll-Hansen

Introducing e-learning in National Statistical Offices

Dag Roll-Hansen

for the

Global Network of Institutions for Statistical Training (GIST)

United Nations | DESA Statistics

Contents

Introduction

A number of NSOs are starting to use e-learning as a cost-efficient way of building capacity. The way they use e-learning vary; some make trainings openly available to all staff, while others identify specific needs and quality courses, establishing a framework surrounding the training. Several NSOs with few resources do, however, hardly use e-learning at all.

E-learning is not limited by geographical distance, can generally be used by a large number of learners and can be used at a time convenient for the learner. Even though developing e-learning may require substantial resources, it is generally possible to access available e-learning at a low cost. Hence, using e-learning can be a cost-efficient way to build capacity in NSOs. This report will present examples of how e-learning is used to train staff, issues to consider for NSOs planning to start using e-learning and existing sources of e-learning.

It may be a challenge to find relevant e-learning courses and other online materials. As a response to this, the Global Network of Institutions for Statistical Training (GIST), who commissioned this report, has set up a hub for e-learning and microlearning materials on official statistics. The hub, UN SDG:learn statistics, showcases courses in official statistics by a number of different providers. It is meant to make it easier for users to find relevant trainings and for course providers to more easily see what is already available.

The report is funded by the UN Department of Economic and Social Affairs, Statistics Division (UNSD) who also acts as a secretariat for GIST.

Outline

This report has three main sections, it first presents examples and good practices collected from a number of countries related to a round of interviews related to the report *Sustainable statistical training programs at National Statistical Offices*[1]. The country examples showcase different approaches to using and developing e-learning materials and can provide good inspiration to others.

Following this, a quick-start guide for countries to make more use of existing e-learning is presented. This is particularly related to the discussion on how to establish and maintain sustainable statistical training programs at national level, being less dependent on international and other partners to provide the trainings.

The third section provides an overview of different e-learning platforms that can be considered by NSOs when they assess which e-learning materials can be relevant to their staff to increase capacity and competencies.

1. Examples of how selected countries make use of e-learning

Making a catalogue of e-learning available to all staff in Morocco

The High Commission of Planning (HCP), the National Statistical Office (NSO) of Morocco, started using external e-learning to train staff in February 2018. The Directorate of Human Resources and General Affairs in HCP launched its Digital Learning-project to allow its employees to strengthen their knowledge. The Training Program Unit conducted a study to choose an appropriate learning

[1] https://unstats.un.org/gist/resources/documents/Sustainable-statistical-training-programs-at-NSOs.pdf

management platform (LMS) to host selected e-learning courses. Suppliers of e-learning platforms and courses were consulted to see what they could offer that was relevant to the needs of the organisation. HCP ended up choosing a solution that did not require large investments. The solution was to make an online catalogue of recommended courses available to all staff. The courses were selected from five different e-learning platforms (FUN MOOCs[2], EDX[3], Coursera[4], My-MOOC[5] and Openclassrooms[6]).

HCP made 24 different online courses available for all staff already in 2018. As a result of the Covid-19 pandemic, Morocco experienced a lockdown in March and April 2020, and the number of courses were then increased to 65. HPC encourages staff to spend part of their time on training, and staff can choose what trainings they want to take.

The courses are massive open online courses (MOOCs), i.e. online courses aimed at unlimited participation and open access via the web. The courses are generally available for free, but a fee is often charged to have a certificate documenting the training. HCP pays for the certificates. Normally between 20 and 30 certificates are issued annually, but more staff attend the courses.

At HCP an important motivation to enhance the use of e-learning was reduced Government budgets as a result of the pandemic. Increased use of MOOCs was not only desirable from a public health perspective, but also seen as a cost-efficient way to build capacity.

Training the National Statistical System (NSS) in Senegal

National Agency of Statistics and Demography (Agence nationale de la Statistique et de la Démographie, ANSD), the NSO of Senegal has its own National School of Statistics and Economic Analysis (Ecole nationale de la statistique et de l'Analyse Economique, ENSAE), that also serve students from other countries. ENSAE is however currently not providing e-learning, except from giving virtual training during the pandemic. Nevertheless, some ANSD staff take e-learning from various portals on their own initiative. One challenge is that it is often difficult to find relevant courses in French language.

ENSAE has the responsibility to train the whole National Statistical System (NSS) and is currently exploring different ways to build capacity in NSS. ENSAE has done a mapping of the NSS to have information of each ministry on which systems exist and what challenges they are facing. There are many gaps in Ministries and ANSD has been trying to offer them short term trainings, unfortunately with limited resources.

A website[7] is established, aiming to disseminate and promote the use of statistics, through collecting statistics from all NSS. ENSAE has started the work to present methodologies and best practises for producing statistics on the website, and is working to document how statistics are produced by establishing a library of training materials and video-recordings of lectures in French language. ENSAE

[2] fun-mooc.fr/
[3] www.edx.org/search?tab=course
[4] www.coursera.org/
[5] https://www.my-mooc.com/fr/, www.my-mooc.com/en/
[6] openclassrooms.com/fr/, openclassrooms.com/en/

[7] statsenegal.sn/

plans to establish a web-based resource centre for NSS to present training material on how to produce quality statistics.

Searching for external courses in Brazil

The Brazilian Institute of Geography and Statistics (Instituto Brasileiro de Geografia e Estatistica, IBGE) has a strategy not to duplicate existing training. When a training need is identified IBGE searches for similar existing courses. The first step is to search the internal course catalogue, to find if a similar training has been developed earlier, either by IBGE, the National School of Public Administration[8] (Escola Nacional de Administração Pública, ENAP) or another government school. The second step is to search online platforms like Coursera, edX or Veduca[9], a Brazilian MOOC portal. Sometimes private course providers are also approached. After the release of UNSDG:Learn[10], IBGE has also started referring staff searching for training to it. UNSDG:Learn other key repositories can be useful tools for NSOs assessing their needs and searching for training to fill gaps.

After identifying a relevant training, IBGE returns to the unit requesting training to see if the training identified satisfies their needs. Once a year IBGE also assesses training needs more systematically. Two advisors or "capacity-building consultants" visit each of the major departments at IBGE to identify needs and areas where work performance needs to be strengthened. Courses or other types of capacity building measures are then identified to fill training needs and enhance performance where needed. If a training is in high demand and strategically important to the organization, IBGE considers developing own e-learning on the topic.

Pooling resources for the Regional Statistical System of the Caribbean

The twenty countries part of the Caribbean Community (CARICOM) are jointly developing an electronic Caribbean Institute for Statistical Training and Research (e-CISTAR), connecting learners to training courses including from the best universities and institutions from within the region and around the world. The electronic platform is still under construction but once it is fully functional, some of the key functions will be[11]:

1. To provide access to training of staff of the Regional Statistical System (RSS) of CARICOM including the National Statistical Systems (NSS) in Member States/Associate Members and other CARICOM agencies with statistical units;
2. To enhance the availability of statistical resources and the sharing of knowledge to support the production and dissemination of statistics in the RSS;
3. To facilitate networking on statistical issues and concerns, the sharing of best practices across the RSS and the facilitation of exchange visits and attachments linked to Centres of Excellence in NSOs/NSS;
4. To provide access to and to support the conduct of applied research and analysis as a support service required to be conducted by countries to enable the adoption of regional

[8] https://www.escolavirtual.gov.br/catalogo
[9] play.veduca.org/
[10] unsdglearn.org/statistics/
[11] https://ecistar.org/?page_id=80

and international work programmes, recommendations and related statistical analysis and research (also to enable training in data analysis).

It is expected that these four key objectives would lead to sustained statistical capacity-building in the CARICOM Region. Potentially other regions could also benefit from training made available through e-CISTAR. The platform is an example of the pooling of resources that can make more training on statistical production available.

Video library of all lectures in Ireland

The Central Statistics Office (CSO) of Ireland has developed a framework for statistical training aiming to align knowledge, skills and expertise for each role within the organisation. Thirteen different skill sets have been identified, each related to different roles at different levels. The skill sets are based on skills needed in the statistical production process, as described in the Generic Statistical Business Process Model (GSBPM).

All staff do a self-assessment of their skills under each of the thirteen skill sets, identifying their knowledge and expertise. The skills are graded in five levels. Staff select appropriate training interventions to build their learning path in agreement with their immediate manager, helped by the training unit. Staff can also suggest courses to take on their own initiative. There is however no systematic way for staff to know what training is available.

CSO Ireland record lectures and make them available for all staff. The aim is to build a complete library of training videos that can help fill future training needs. Learners will be able to access the videos in their own pace, when the new skills are to be used. Videos are supplemented with printed notes and other learning material. The aim is to limit the number of times a lecture has to be given, and update the videos every few years. CSO Ireland sometimes also establish communities of practice, meeting every month or second month to discuss a common area of interest.

CSO Ireland were prohibited from recording sessions until their Data Office issued guidelines which ensured that they were in compliance with the European General Data Protection Regulation (GDPR). The reason being there was a concern over the identification of individuals who took part in the session. When a lecture is recorded, both the trainer and learners that may be identified in the recording ought to be asked for consent or at least informed that the session is recorded and how it is intended to be used, depending on what national regulations exist in this area.

In addition to establishing a more flexible learning environment, CSO Ireland envision that establishing a library of training videos will lead to reduced costs, especially related to trainings done by experts that are not part of the organisation. CSO Ireland also recognises that there is a limitation to how much learning happens through recorded sessions on some topics. Hence, they consider returning to live classroom or virtual delivery for these sessions in the future.

Combining e-learning, lectures and discussion forums to enhance learning in Estonia

Statistics Estonia is starting to use the programming language R to produce statistics and give training in R to all staff involved in the production of statistics. First, learners take e-learning from edX to start learning R. The aim is to give everyone at least a basic knowledge of the programming language, and to bring them up to speed for further training. Before starting the e-learning on edX, the learners got a classroom introduction on how the course is built up, how to use the course, how to ask questions

and where to get support. The learners met regularly with a mentor every few weeks to follow up on progress and to identify challenges. Having a support group is key when you learn something totally new.

Second, an internal trainer gives four two hours online sessions on practical implementation of R in Statistics Estonia. Each session focuses on a specific topic related to producing statistics using R, allowing participants to raise challenges they face in their daily work. Learners also received training in databases and data architecture, to be able to use R with internal databases. Between the sessions the participants get assignments on programming in R, to be addressed in the next session. The trainer has time set aside in their calendar for anyone who needs some kind of assistance to progress.

Third, an online discussion forum for R-users in Statistics Estonia is established, where learners can ask questions and discuss challenges they are facing. The learning material is also available on the same webpage. In addition, a dedicated person for technical assistance can be contacted for guidance on R.

The combination of online training, facilitated training and discussion groups makes it possible to benefit from the advantages of the different training modalities. This is particularly important as e-learning in English language may leave learners that are not fluent in English with gaps in their learning outcome. Learners prefer courses in Estonian language.

Statistics Estonia has also announced on their Intranet that staff can take training on edX and Coursera. If there is a fee to take the course, it is refunded by the organisation.

Courses specific to the statistical production are generally perceived as more useful than courses on general topics. Courses on statistical production are e.g. supplied by the European Statistical Training Programme (ESTP), European Master in Official Statistics (EMOS) and International Monetary Fund (IMF). The availability of these courses has increased as they have been moved online, but the organisations unfortunately often limit the number of learners quite strictly.

E-learning supported by learning teams in Statistics Norway

A new IT-platform is being introduced in Statistics Norway, based on programming languages new to the organisation. The platform was partially built by external consultants, a solution that was expensive and made it challenging both to maintain the system and develop it further. Hence, Statistics Norway wanted to build in-house capacity in the relevant areas. Having traditional classroom training was costly, and it was often difficult to get training at the right level for all learners.

Statistics Norway started to use e-learning to build the relevant capacity using edX, a leading provider of online courses. After assessing the needs of the organisation and the availability of online training, courses that could support the introduction of the new IT platform were identified. The courses focus on basic programming, analysis, data management and Python. Nineteen staff members take the courses, and they are divided into three learning teams supporting each other's development by doing assignments and discussing how new skills can be implemented in their work. Also, experts from the IT-department support the learning process if need be. The cost of the training

is a small fraction of classroom courses previously used. This makes it possible to give more staff training at a significantly lower cost than before.

The aim of the training is to have enough of the needed skills relevant for using, maintaining and further developing the new IT-platform. The implementation of the new platform is phased, meaning that everyone will not start using it at the same time. Hence, timing of the training is important, as learners should have the training when they are about to start using the new platform.

The target group is diverse; the learners have varying levels of programming skills and varying tasks related to the platform. Some will be maintaining and developing it, while others will use it to produce statistics. This will influence what type of training is most relevant for staff to have.

The courses are to a large extent based on video lectures and assignments, as far as possible using examples that are relevant for Statistics Norway. The training will be evaluated using an electronic questionnaire in Forms, and meetings between participants and the relevant supervisors to assess if the training has enabled the participants to work on the new platform and pass their new skills on to others.

Parallel to using external e-learning, staff at Statistics Norway have produced their own training videos and assignments relating the topic directly to systems and work processes used in the organisation. This aims to establish expertise in the area and enhances the relevance of training to daily work of staff.

Links to external e-learning resources have been available on Statistics Norway's intranet for years, guiding staff to a range of platforms where MOOCs are available. The pilot project described was however first initiated after the IT-director of Statistics Norway took the initiative to use existing e-learning resources strategically, indicating that management support is key when establishing new ways of learning.

The project described is a pilot, but the in-house training unit in Statistics Norway is aiming to use the way of learning described also in other areas if proven to be fruitful.

2. Quick start guide to utilizing existing e-learning

Identifying needs

Training and capacity development generally aim to fill a need in an NSO. Identifying the needs of an NSO is the first step on the way to find relevant courses. This can be done in multiple ways, with varying levels of complexity. A simple form of assessing needs can be asking managers or staff what kind of training is needed, relating it to tasks to be done. In Morocco, HCP left it to the individual staff member to decide what kind of e-learning they wanted to take. In statistics Norway, there was a lack of skills in using a new IT-platform, forcing the organisation to look for cost-efficient ways to train. In Ireland, the CSO has developed a sophisticated system to identify skills needed and build learning paths for the individual staff member to gain the capacity needed.

Identifying needs for capacity building can be done in various ways, but bear in mind that it is not necessary to have a comprehensive overview of all training needs before staff start their training. It may be enough to have one significant need identified before initiating training to meet the need. Often, training needs are identified either by the management or the individual staff member. Having dedicated staff to help identify needs and help find training to fill gaps may however facilitate the

process of supplying relevant training. Such staff will often be found in a Human Resource Department or a dedicated training unit.

People often do e-learning on their own, leaving the organisation little possibility to decide what kind of training is prioritized. If the aim of the training is e.g. to prepare a shift to a new technological platform, the NSO could benefit from deciding what tools and trainings should be in focus of the training supplied. The decision can be based on an assessment of how the training impact productivity or improve work processes, and further how strong the demand for the training is and if it is in line with the strategic objectives of the organisation.

Finding the right training

Main question: What training is needed to get the job done?

Next step is to identify one or more courses that meet the training needs. Training should meet the learning objective, which could e.g. be to get a deeper understanding of a new topic, or to learn enough to be able to use what is learned in daily work. The content of the training must be relevant to meet the learning objective, and what staff need to learn to meet the objective should be considered. The level of details you need to learn may e.g. be very different if you only need to understand basic principles of how sampling for a survey can be done, than if you are actually drawing the sample yourself. The level of detail training can go into also depends on how much time staff can set aside to do the training.

The level of the training is also important to have participants benefiting from it. If the aim e.g. is to train someone to program in a new language, the training can probably be more advanced for someone who have been programming in other languages before, than for one that is new to programming in IT-languages. More general topics like e.g. IT is easier to find relevant e-learning on than topics more specific to statistical production, like national accounts, survey design and field work.

It may be difficult to navigate on the internet to find the relevant trainings. To support this, this report has listed a number of platforms that may potentially have the courses that are needed. GIST has also set up a hub for all courses on official statistics, called UN SDG:learn statistics. The hub is still work in progress with currently around 65 courses available but may still be a useful resource to consider.

Identifying learners

Main question: How many and who are we going to train?

Usually the ones that need to be trained are those who will be applying the skills in their work. The target group of the training sometimes consists of persons with similar skills and knowledge from before, other times their starting point differs. If it differs, it should be considered to supply training on different levels.

The number of learners not only depend on how many needs the skills, but also on expected turn-over in the group to be trained and if there are many other prioritized tasks they need to solve.

Using e-learning to train requires basic IT-skills. Selecting participants that has these skills, are motivated to learn through e-learning and have time to do it is an advantage. Participants will

generally be more motivated if the learning is seen as useful for work, leads to new and interesting tasks and is supported by the management.

Access to training

Main question: Is it possible for staff to access the training?

E-learning generally requires web-connectivity, as well as access to a working computer and time and opportunity to take the training. If these needs are not met, staff will not be able to make use of online training.

Staff in many NSOs have limited access to the internet. This may partially be helped by accessing videos through other means than streaming, but internet access is generally a huge advantage using e-learning. Hence, prioritizing existing computers and internet capacity for users of e-learning may be necessary to make it possible for them to learn. Alternatively, subsidizing private internet access to users of e-learning, may also come at a reasonable cost. In Senegal, access to the internet used to be a problem but the challenge is now reduced.

If computers and internet resources are not available, it could also be considered to use other ways to distribute learning material, like as printed material or audio-files.

Learning teams and MOOC camps

Main question: How can e-learners be supported or support each other?

Taking a course in a foreign language on a difficult topic is generally challenging. Taking an online course may also be a lonely undertaking. Not only is social interaction limited, but if there is no discussion group or trainer supervision, the learner has few possibilities to clarify what is difficult, discuss the topic and find ways to implement knowledge gained in work.

Learning teams are teams where the members are to support each other's learning and development. It is a forum for discussion, learning and problem solving. The aim is to create an arena where every member has the possibility to present challenges and is supported in finding solutions by the rest of the group. Successes should be shared to make it possible for others to learn from them and use them in their own work. Individual goals can be made goals for the whole team; if one group member is transferring a statistics to a new IT platform, the whole team could be obliged to help her to make a successful transfer. If one member is responsible for designing a sample after a training in sampling, the whole team could take a joint responsibility for the quality of the sampling design. The team should meet regularly, e.g. once a month or more often if need be. The size of the group should not be too big, to make it possible to keep it informal, and not have people put on a face.

Another initiative to support learners using e-learning is MOOC-camps, having facilitators supporting the learning of participants in e-learning. The e-learning courses can be taken onsite or online, having facilitator moderated discussion groups doing assignments and clarifying challenging issues. Facilitators can also adapt e-learning material to the organisational, local or national context.

Evaluation of the effect of external e-learning

Main question: Does the training improve work?

Evaluating the effectiveness of training gives us an opportunity to improve future training. It should be assessed if the training supplied and the way learning is organised make the learner meet the learning objectives. It is an advantage to have measurable objectives and plan the evaluation as the learning objectives are defined.

Trainings can be evaluated by sending out a questionnaire to the learners right after the course and then again after six months, to find if trainings improve their work or not and to improve the way training is organised and the selection of courses. Meetings or focus groups can also be held to discuss how to improve organisation of training and selection of e-learning courses. As training only has value if it improves work, evaluating its impact on work is key.

As not everyone may be familiar with how to conduct valuable evaluations, GIST has put together a brief guidance document on evaluation of statistical training courses [12].

3. Some sources of e-learning

E-learning is available through many platforms. This section gives a brief overview of some of the sources to go to for e-learning. Many of the courses can be accessed free of charge, but generally a fee will have to be paid to issue a certificate. Most of the courses are unfortunately only available in English, even though some are made in other languages.

e-learning on statistical production

UNSDG:Learn[13] is a hub for a wide range of courses in statistics, many developed by members of GIST. All NSOs and regional and international organisations making e-learning material on production of official statistics are encouraged to make their material available through the hub as a common good. Other types of learning material and documentation are also made available through UNSDG: Learn. On the website you can e.g. find training on questionnaire design[14]. The hub is meant to make it easier for users to find relevant trainings and for course providers to more easily see what is already available.

The below providers are mostly individual providers and GIST will work with a number of them moving forward with the aim of adding the courses to the UN SDG:learn statistics hub:

The African Institute for Economic Development and Planning (IDEP) has a portal[15] including training on building statistics on some aspects of socioeconomic development. Among the e-learning courses they offer is the Statistical Leadership Programme, developed in cooperation with the Office for National Statistics in United Kingdom.

---

[12] Global Network of Institutes for Statistical Training; An introduction to evaluation of statistical training courses: unstats.un.org/gist/resources/documents/Evaluation-guidance-doc-GIST-AM.pdf

[13] www.unsdglearn.org/statistics/

[14] www.unsdglearn.org/courses/questionnaire-development-and-testing/

[15] services.unidep.org/e-idep/

The Economic Commission for Latin America and the Caribbean (ECLAC) is providing some courses given in Spanish for a fee[16].

The electronic platform for Statistical Training and Research in the Caribbean (e-CISTAR) is aiming to make quality training resources in statistics available, with a strong focus on e-learning. The platform is still under construction in June 2021[17].

Escola Nacional de Administração Pública (ENAP) in Brazil is providing courses in public management, ethics, teaching, IT and many other topics in Portuguese language[18].

The ESRI Academy[19] offers a range of e-learning on geographic information system (GIS) freely available.

Eurostat has made some webinars from the European Master in Official Statistics (EMOS) available online[20]. Some courses under the European Statistical Training Programme (ESTP)[21] has been conducted online and recorded in the second semester of 2020 and the first semester of 2021. As of December 2021, online training on statistics from Eurostat will be available through the EU Academy[22].

Food and Agriculture Organization of the United Nations (FAO) has several courses on UNSDG:Learn, mostly on SDGs. In addition, FAO have developed training on CAPI using Survey Solutions and CSPro[23], in cooperation with the Asian Development Bank (ADB).

The International Labour Organization (ILO) has a training programme on labour statistics[24].

Many statistical subjects are addressed in the Online Statistics Education: An Interactive Multimedia Course of Study[25], developed by Rice University (Lead Developer), University of Houston Clear Lake, and Tufts University.

The Open Learning Campus[26] of the World Bank Group has e-learning courses, webinars and documents on many development related topics, among them Civil Registration and Vital Statistics (CRVS) available in Spanish and English.

The Paris21 Academy[27] has some selected online courses in planning, gender and dynamic presentation of data.

Statistics Canada has made a range of videos and recorded online lectures available on several statistical topics[28].

---

[16] www.cepal.org/en/training
[17] ecistar.org
[18] https://www.escolavirtual.gov.br/catalogo
[19] www.esri.com/training/catalog/search/
[20] ec.europa.eu/eurostat/cros/content/webinars_en
[21] https://ec.europa.eu/eurostat/cros/content/past-estp-courses_en
https://ec.europa.eu/eurostat/cros/content/estp-training-offer_en
[22] academy.europa.eu/
[23] adbx.online/
[24] https://www.ilo.org/stat/Areasofwork/Training/lang--en/index.htm
[25] onlinestatbook.com/2/index.html
[26] olc.worldbank.org/
[27] academy.paris21.org/en/list
[28] www.statcan.gc.ca/eng/wtc

United Nations Statistical Institute for Asia and the Pacific (SIAP) has a portal for e-learning on selected topics related to statistics, like e.g. on national accounts[29].

The United Nations Statistics Division has an e-Learning platform covering e.g. environmental and energy accounting in multiple languages[30].

The U.S. Census Bureau offers customized courses and workshops on a wide variety of topics related to censuses, that can also be relevant for other data collection exercises[31] .

General e-learning platforms

There are an number of e-learning platforms that are not specifically focused on official statistics, but which nevertheless include courses that may be relevant to a statistician. See a list of some of the most relevant platforms below.

The Class Central[32] assembles courses from a range of providers, grouping them under e.g. statistics and probability, social sciences, mathematics and economics.

Coursera[33] is a portal offering courses on a wide range of topics, including e.g. statistics, languages, soft skills, data and computer science.

The platform edX[34] makes e-learning courses from many universities and organisations available, including e.g. data analysis and statistics, social science, soft skills, language and computer science. There is a varied selection of free courses in R, Python and other programming languages available on both edX and Coursera.

The portal Fun MOOC has many e-learning courses available in French language[35]

Khan Academy offer online training on many levels, from primary education up to advanced training in e.g. statistics and probability[36].

My-MOOC offer a range of e-learning courses and have both an English and French interface[37].

OpenClassrooms is an online education platform for vocational training, providing courses in e.g. IT and digital skills. All courses are conducted online, through video resources, online reading, projects and individual mentoring. The platform has both a French and English interface[38]

Online training is also available through platforms like Udemy[39] and Udacity[40], although fewer of their courses are available for free.

---

[29] siap-elearning.org/
[30] elearning-cms.unstats.un.org/course
[31] https://www.census.gov/programs-surveys/international-programs/events/training/e-learning.html
[32] www.classcentral.com/subjects
[33] www.coursera.org/
[34] www.edx.org/search?tab=course
[35] fun-mooc.fr/
[36] www.khanacademy.org/math/statistics-probability
[37] https://www.my-mooc.com/fr/, www.my-mooc.com/en/
[38] openclassrooms.com/fr/, openclassrooms.com/en/
[39] www.udemy.com/
[40] www.udacity.com/

Veduca[41] is a Brazilian e-learning portal that offers e-learning in Portuguese language.

Youtube has a wide range of videos on different topics, including statistics[42].

In addition to a varied selection of language courses available through edX, Coursera and Khan Academy, training in English is also made freely available by the British Council[43] and BBC[44].

Final remark

The aim of this document has been to inspire NSOs to take advantage of e-learning to train staff. Some examples of how this is done in a few countries are shared. The aim of the section called Quick start guide to utilizing existing e-learning is to suggest some issues to consider starting up. The last section mentions some websites that may be useful to visit to look for existing e-learning. Good luck!

[41] play.veduca.org/
[42] www.youtube.com/
[43] learnenglish.britishcouncil.org
[44] www.bbc.co.uk/learningenglish

Glossary

ANSD	National Agency of Statistics and Demography (Agence Nationale de Statistique et de la Démographie) of Senegal
ECLAC	Economic Commission for Latin America and the Caribbean
ENCE	National School of Statistical Sciences (Escola Nacional de Ciências Estatísticas) of Brazil
ENSAE	National School of Statistics and Analysis (Ecole Nationale de la statistique et de l'analyse) in Senegal
ESCAP	Economic and Social Commission for Asia and the Pacific
FAO	Food and Agriculture Organization of the United Nations
GIST	Global Network of Institutions for Statistical Training
GSBPM	Generic Statistical Business Process Model
HCP	High Commission for Planning of Morocco
IBGE	Brazilian Institute of Geography and Statistics (Instituto Brasileiro de Geografia e Estatistica)
IDEP	African Institute for Economic Development and Planning
ILO	International Labour Organization
MOOCs	Massive Open Online Courses
NSO	National Statistical Office
NSS	National Statistical System
SDG	Sustainable Development Goals
SSB	Statistics Norway
UN	United Nations
WB	World Bank