



UNITED NATIONS

**United Nations Statistical Commission**

**Global Working Group on Big Data for Official Statistics**

**Annual meeting**

**11 November 2020, 07:00 EST**

**Agenda item (5) – Task Teams: Privacy Preserving Techniques**



## GWG Privacy Preserving Techniques Task Team

### Overview

The Privacy Preserving Techniques Task Team (PPTTT) focuses on privacy-preserving approaches for the statistical analysis of sensitive data; presents examples of use cases where such methods may apply; and describes relevant technical capabilities to assure privacy preservation while still allowing analysis of sensitive data. Our focus is on methods that enable protecting privacy of data while it is being processed rather than while it is at rest on a system or in transit between systems. The work is intended for use by statisticians and data scientists, data curators and architects, IT specialists, and security and information assurance specialists, so we explicitly avoid cryptographic technical details of the technologies we describe.

The task team has been active since April 2018. So far it has released the UN Privacy Preserving Techniques Handbook introducing and describing various privacy preserving techniques, and has started on a second handbook, which will link more to use cases in the statistical community. It is also looking into the legal aspects of using these techniques as well as learning materials for Training programme to increase awareness and help develop skills in statistical community.

### Achievements in 2019/2020

- Delivery of the first UN Privacy Preserving Techniques Handbook covering five emerging techniques that support protection and sharing of sensitive information: Secure Multiparty Computation, (Fully) Homomorphic Encryption, Trusted Execution Environments, Differential Privacy and Zero Knowledge Proofs.  
<https://marketplace.officialstatistics.org/privacy-preserving-techniques-handbook>
- Establishment of the Legal subgroup (February 2020): the subgroup is working on legal implications of Privacy Preserving Techniques and development of legal guidelines for organizations implementing these techniques in practice.
- Establishment of the Covid-19 subgroup (April 2020): this subgroup has been used to exchange knowledge and experience critical for urgent development of Covid-19 contact tracking applications and other Covid-19 related use cases. Learning from these use cases will be documented in the new Handbook.

- Refresh and expansion of membership needed to support new goals and subgroups and develop second Handbook that will focus on use of Privacy Preserving Techniques in statistical use cases (June 2020).
- Establishment of the Training subgroup with focus on development of learning materials (September 2020).
- Agreed timelines for deliverables in 2021 and document outline for Legal Guidelines and new Privacy Preserving Techniques Handbook (October 2020).

### **Deliverable (2021)**

#### **A. Methodology, standards, guidance, e-learning courses**

In 2021 we will publish second UN Privacy Preserving Techniques Handbook that will focus on applicability of privacy-preserving techniques to concrete statistical use cases. The findings in this Handbook will be deducted from the case studies that are taken from active research at national statistical institutes and international organizations. Furthermore, we will investigate new techniques; evaluate, monitor and report on relevant standards and frameworks and develop guidelines on the legal aspects of privacy preserving techniques. Task Team will also support the development of training, exams and certifications for individuals in privacy techniques with the objective of candidates being able to develop methods and procedures for securely processing and exchanging proprietary and sensitive information.

#### **B. Projects**

In 2021 we plan to work with relevant projects for example the UNECE Input Privacy-preserving techniques project to collect information about practical use cases and learn about implementation challenges and solutions. Findings will be documented in the new Handbook.

#### **C. Workshops and other capacity building events**

In 2021, we plan to organize at least one session specifically dedicated to privacy-preserving techniques at one of the established statistical conferences. We also plan to prepare e-learning materials and work together with academia, open-source community and other partners to increase awareness and develop skills needed for effective use of privacy-preserving techniques in statistical community.

#### **D. Outreach and awareness raising**

Task Team will facilitate sharing of information and maintain international community about privacy-preserving techniques. In 2021, we plan to regularly share activities in UNGP newsletters, slack channel and regularly update Wiki site and the website of the Task Team. The contribution to Big Data Conference, UN World Data Forum and other relevant events will be also part of outreach activities.

<https://unstats.un.org/bigdata-new/task-teams/privacy/index.cshtml>

<https://unstats.un.org/wiki/display/UGTTOPPT/UN+GWG+Task+Team+on+Privacy+Preserving+Techniques>

**E. Data platform**

Task team members are available to provide advice on privacy-related matters such as and privacy-preserving techniques to UN Global Platform projects that work with privacy sensitive data.