# NIST Privacy Engineering Collaboration Space

May 9, 2019 Federal Computer Security Managers' Forum Katie Boeckl, Privacy Risk Strategist, NIST

## NIST Privacy Engineering Program

### Vision

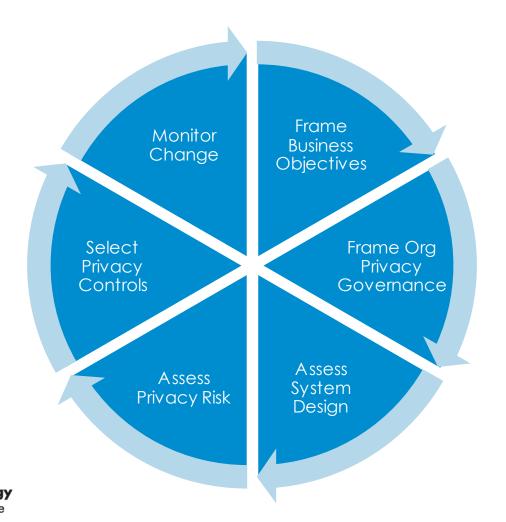
Privacy engineering is integral to establishing trustworthiness in information systems that support the growth of the digital economy and improve individual quality of life.

### Mission

Support the development of trustworthy information systems by applying measurement science and system engineering principles to the creation of frameworks, risk models, guidance, tools, and standards that protect privacy and, by extension, civil liberties



### NIST Privacy Risk Assessment Methodology (PRAM)





## Why a collaboration space?

- Need for more tools, solutions, and processes supporting privacy engineering
- Greater awareness of those that already exist
- Better understanding of benefits and integration into systems or enterprise risk management processes
- Construct that helps organizations match the appropriate tools, solutions, or processes to their needs



National Institute of Standards and Technology U.S. Department of Commerce

## **Collaboration Space Overview**

an online venue open to the public where practitioners can **discover**, **share**, **discuss**, and **improve upon open source tools**, **solutions**, and **processes** that support privacy engineering and risk management



### What to Contribute



Tools Use Cases Feedback



### **Initial Focus Areas**

### **De-identification**

### Privacy Risk Assessment



#### PRIVACY ENGINEERING PROGRAM

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About
Collaboration Space
Introduction
Operating Rules
Moderators
Contribute
Browse
Resources
Events
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### **Collaboration Space**

#### Welcome

This space has just launched! To kick off, we are focusing on **de-identification** and **privacy risk assessment**, and welcome feedback on future topics of interest.

#### Contact Us **≥**

NIST's Privacy Engineering Collaboration Space is an online venue open to the public where practitioners can discover, share, discuss, and improve upon open source tools, solutions, and processes that support privacy engineering and risk management.

#### Contribute

Created a privacy tool? Have a use case to share? Post it or collaborate on other contributions in the space.

Contribute

#### Browse

Interested in tools or use cases for de-identification and privacy risk assessment? Browse the contributions.





Pull requests	issues Marketplace Explore		
Usnistgov / PrivacyEngCollab Code Issues 0 II Pull			11 🖈 Unstar 12 😵 Fork 9 gs
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**Privacy Engineering Collaboration Space** 

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## **De-Identification Tools**

Approximate Minima Perturbation (AMP) Carnegie Mellon University; Boston University; University of California, Berkeley; University of California, Santa Cruz; Peking University

**ARX Data Anonymization Tool** TUM - Technical University of Munich

**Differentially Private Stochastic Gradient Descent (DP-SGD)** Google

**Ektelo** UMass Amherst, Duke University, Colgate University



## **De-Identification Tools (continued)**

**GUPT: Privacy preserving data analysis made easy** University of California, Berkeley; University of California, Santa Cruz; Cornell University

**PixeIDP** Columbia University

**Privacy Protection Application (PPA)** US Department of Transportation

Private Aggregation of Teacher Ensembles (PATE) Google



### Privacy Risk Assessment Tools & Use Cases

**City of Seattle Open Data Risk Assessment** Future of Privacy Forum (FPF) | Use Case

### **FAIR Privacy**

Enterprivacy Consulting Group | Tool

### **NIST PRAM**

NIST | Tool



### Engage!

- Explore the space
- •Contribute your tools and use cases
- Spread the word about the space



### Resources



www.nist.gov/itl/applied-cybersecurity/privacyengineering/collaboration-space



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