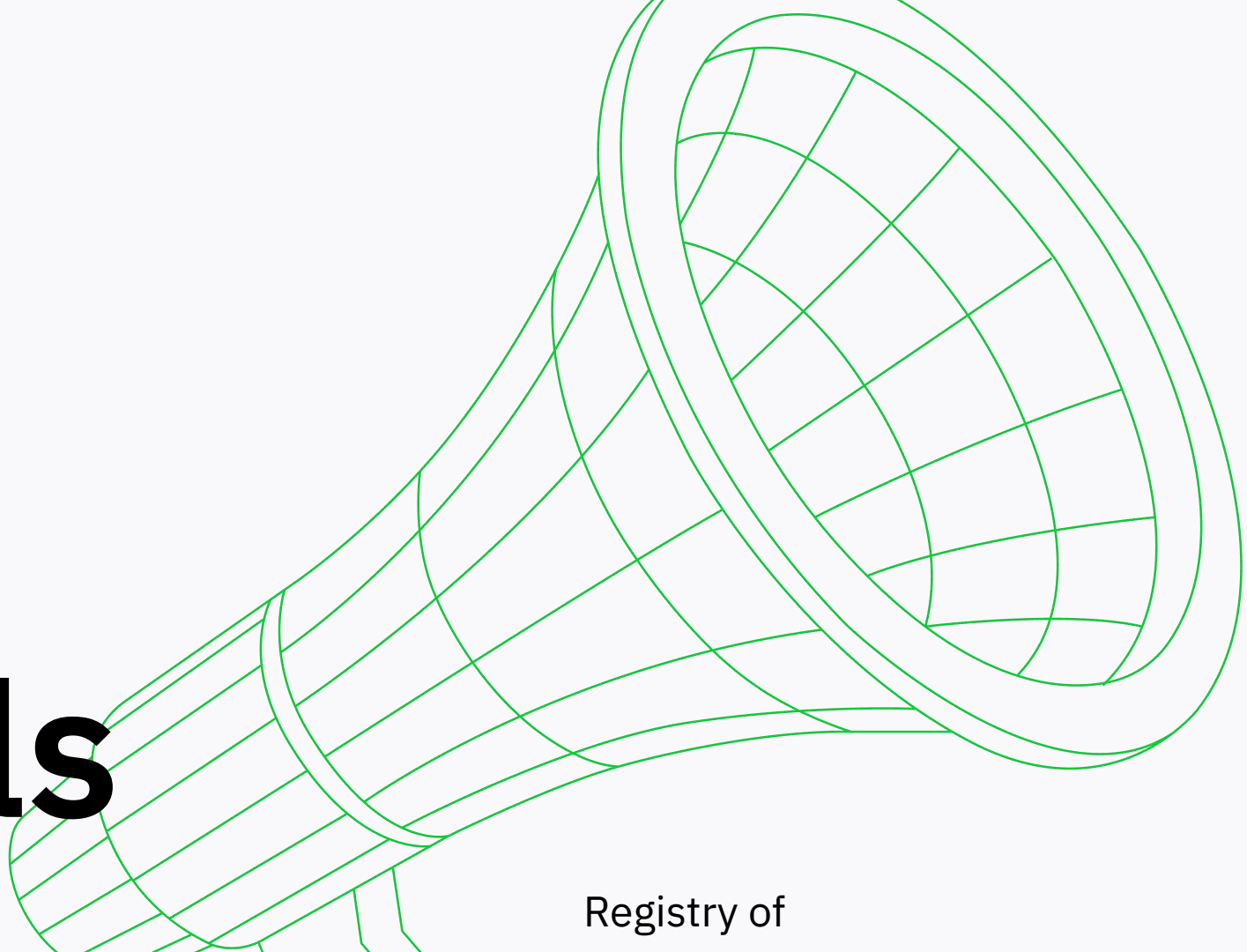
Launching a Community-Driven Registry for DP Deployments

February 9, 2026

01

Goals



Registry of

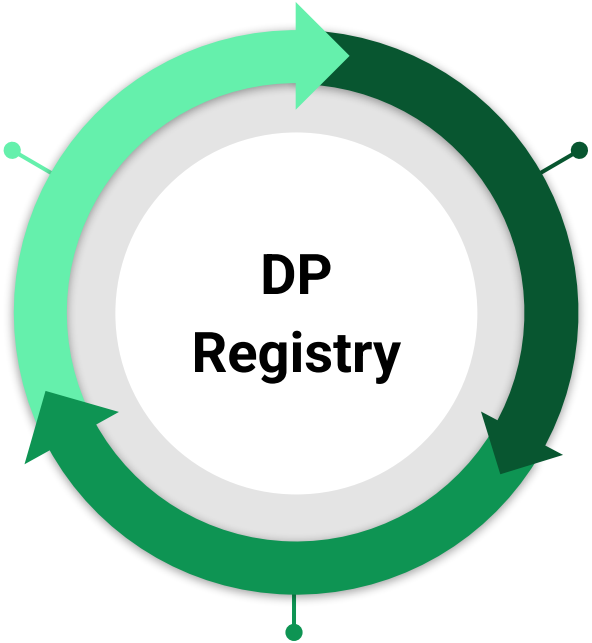
...there is a need for shared learning amongst the differential privacy community. To serve these purposes, we propose the creation of the Epsilon Registry–a publicly available communal body of knowledge about differential privacy implementations that can be used by various stakeholders to drive the identification and adoption of judicious differentially privacy implementations.

Dwork, Kohli, Mulligan

“Differential Privacy in Practice: Expose Your Epsilons!”
2019

How Does a Registry Promote Change?

Foster norms and best practices among industry practitioners



Capture snapshots of the DP landscape

Incentivize industry norm to openness

A brief timeline.

2006
Differential Privacy invented (Dwork McSherry Nissim Smith)

2019
Registry proposed (Dwork Kohli Mulligan 19)

2025
Registry work begins: Oblivious / OpenDP Prototype

Sept. 2025
“Community-Driven DP Registry” paper

~ April 2026
Community-Driven DP Registry Paper 2.0

~June 2026
Public plan for NIST-hosted DP Registry

~ August 2026
NIST DP Registry launched

02

Proposal

NIST NIST Internal Report
NIST IR 8588 ipd

A Community-Driven Differential Privacy Deployment Registry

Initial Public Draft

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Rachel Cummings
Columbia University

Damien Desfontaines
Hiding Nemo

Jack Fitzsimons
Robert Pisarczyk
Oblivious

Andrew Gruen
Working Paper

James Honaker
Mozilla Co.

Nitin Kohli
University of California, Berkeley

Joseph P. Near
University of Vermont

This publication is available free of charge from:
https://doi.org/10.6028/NIST.IR.8588.ipd
September 2025

U.S. Department of Commerce
Howard Lutnick, Secretary

National Institute of Standards and Technology
Craig Burkhardt, Acting Under Secretary of Commerce for Standards and Technology and Acting NIST Director

NIST NIST Internal Report
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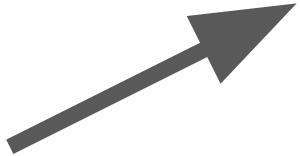
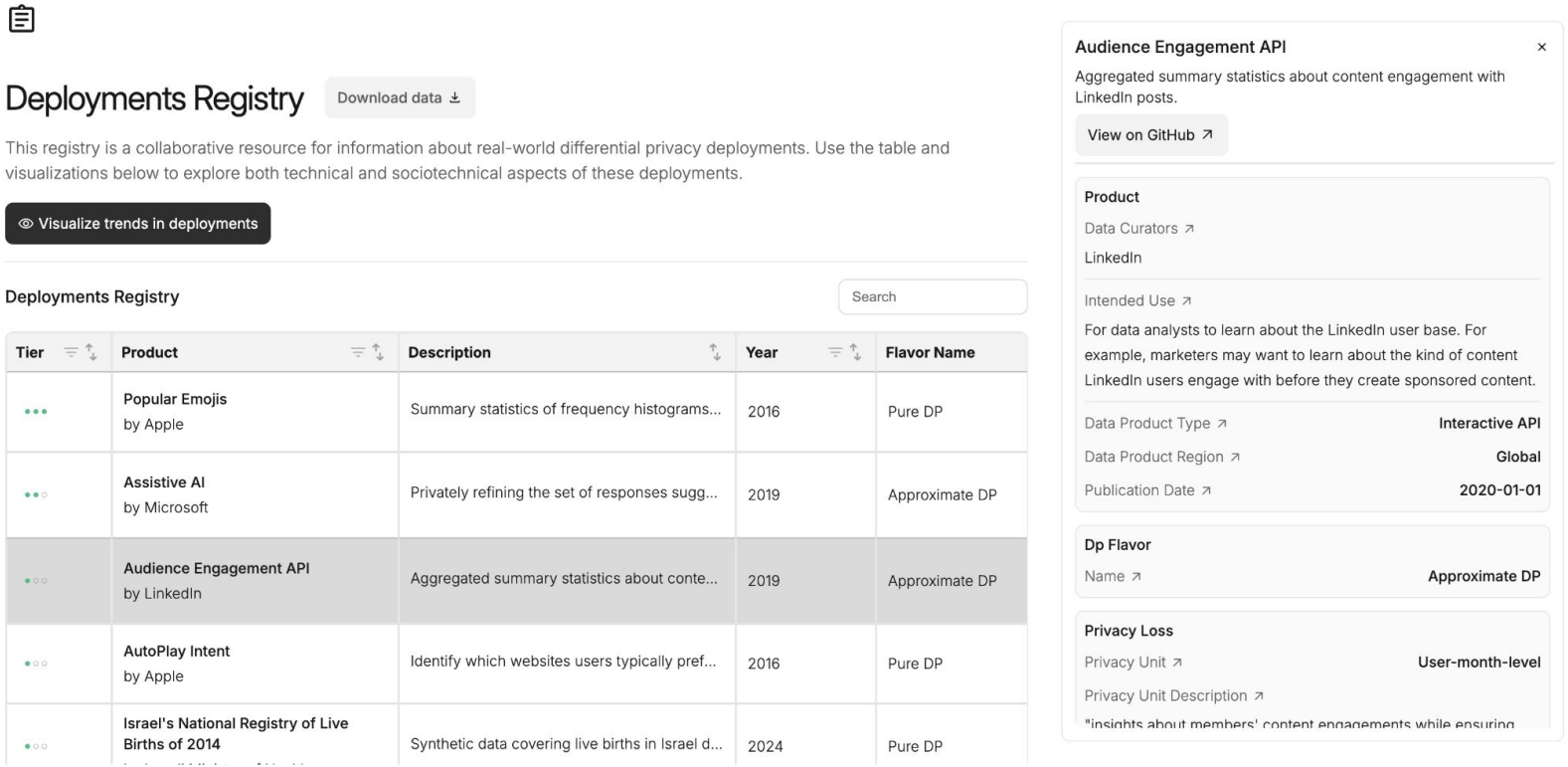
Craig Burkhardt, Acting Under Secretary of Commerce for Standards and Technology and Acting NIST Director



“Guidelines for Hosting a Community-Driven DP Deployment Registry”
~ April 2026

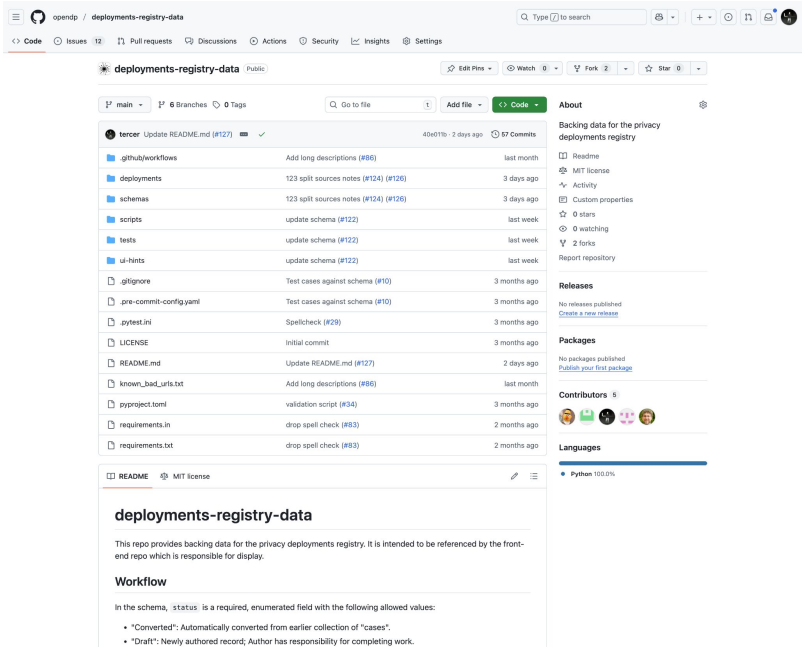
Public plan for a NIST-hosted repository
~ June 2026

Site and Schema Demo: registry.opendp.org



registry.opendp.org

Portal and database all run out of GitHub



[Repo for Data]

[Repo for Portal]

03

Community

As a community resource, many tiers of contribution

1. Advisory Board
2. Editorial Board
3. Data Coders
4. Maintenance and Hosting
5. Umbrella Organizations

As a community resource, many tiers of contribution

- Periodic meetings
- Articulates strategy on outreach, and how to foster industry consensus
- Make broad-ranging governance guidelines for the Registry
- Updates NIST Community-Driven DP Registry paper

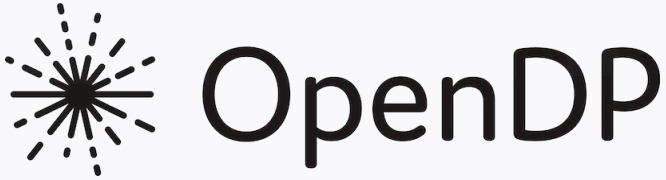
1. Expert Board
2. Editorial Board
3. Data Coders
4. Maintenance and Hosting
5. Umbrella Organizations

As a community resource, many tiers of contribution

- Periodic meetings to consider submissions
- Fact-finding determination on the *completeness* of entries
- Does not evaluate quality of the deployment

1. Advisory Board
2. Editorial Board
3. Data Coders
4. Maintenance and Hosting
5. Umbrella Organizations

As a community resource, many tiers of contribution



1. Advisory Board
2. Editorial Board
3. Data Coders
4. Maintenance and Hosting
5. Umbrella Organizations

Thank you

What to learn more?

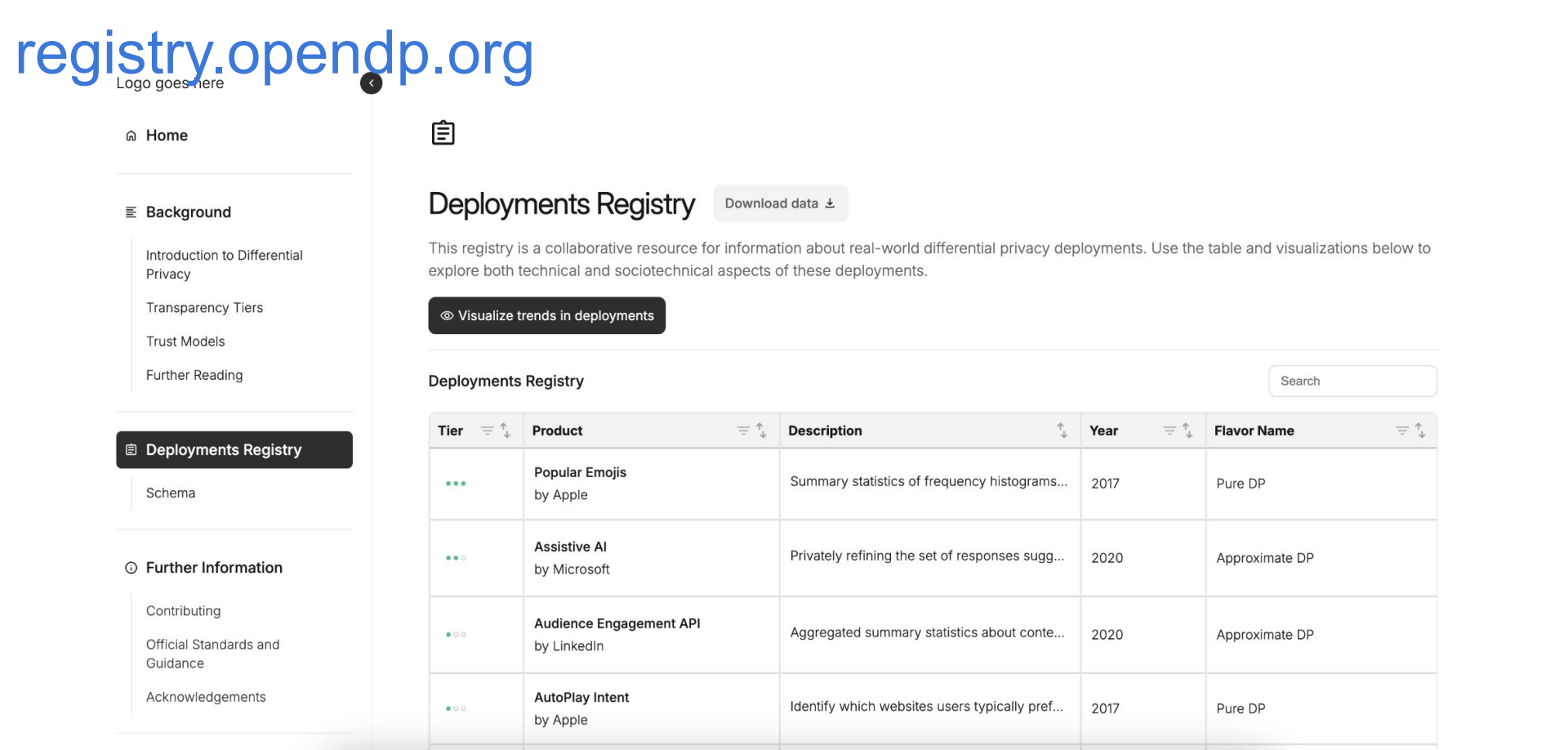
Open DP: info@opendp.org

NIST: gary.howarth@nist.gov

04

Additional Materials

registry.opendp.org



registry.opendp.org

Deployments Registry

Download data

This registry is a collaborative resource for information about real-world differential privacy deployments. Use the table and visualizations below to explore both technical and sociotechnical aspects of these deployments.

Visualize trends in deployments

Deployments Registry

Search

Tier	Product	Description	Year	Flavor Name
●●●	**Popular Emojis** by Apple	Summary statistics of frequency histograms...	2016	Pure DP
●●○	**Assistive AI** by Microsoft	Privately refining the set of responses sugg...	2019	Approximate DP
●○○	**Audience Engagement API** by LinkedIn	Aggregated summary statistics about conte...	2019	Approximate DP
●○○	**AutoPlay Intent** by Apple	Identify which websites users typically pref...	2016	Pure DP
●○○	**Israel's National Registry of Live Births of 2014**	Synthetic data covering live births in Israel d...	2024	Pure DP

Audience Engagement API

Aggregated summary statistics about content engagement with LinkedIn posts.

View on GitHub

Product

Data Curators

LinkedIn

Intended Use

For data analysts to learn about the LinkedIn user base. For example, marketers may want to learn about the kind of content LinkedIn users engage with before they create sponsored content.

Data Product Type — **Interactive API**

Data Product Region — **Global**

Publication Date — **2020-01-01**

Dp Flavor

Name — **Approximate DP**

Privacy Loss

Privacy Unit — **User-month-level**

Privacy Unit Description

"insights about members' content engagements while ensuring

registry.opendp.org

Logo goes here

●●●	**Broadband Coverage** by Microsoft	Publicly available U.S. Broadband Coverage...	2021
●●●	**Disclosure Avoidance System for Redistricting Data** by U.S. Census Bureau	Set of summary statistics (tables with count...	2021
●○○	**Census County Business Patterns** by U.S. Census Bureau	Demonstration dataset releasing data on ec...	2023
●○○	**COVID-19 Exposure Notification Framework** by Google, Apple	Measurement system which provides summ...	2021
●●●	**COVID-19 Search Trends Symptoms** by Google	Summary statistics, published as an aggreg...	2020
●●○	**Post-Secondary Employment Outcomes** by U.S. Census Bureau	Summary statistics that describe earning ou...	2019
●●●	**Community Mobility Place Visits** by Google	Summary statistics, published as the COVID...	2020
●○○	**HealthKit Usage Statistics** by Apple	Summarize most popular health data types t...	2017
●○○	**Korean Government Statistical Data Hub Platform** by KOSTAT (National Statistics Office of Korea)	"Statistics Korea is promoting the establish...	2021

Post-Secondary Employment Outcomes

Summary statistics that describe earning outcomes for college graduates at different levels, including but not limited to, degree level, degree field, and state of institution.

View on GitHub ↗

Product

Data Curators ↗

U.S. Census Bureau

Intended Use ↗

For college students and prospective college students to be informed about relationships between specific fields of study and earning outcomes.

Data Product Type ↗	**Summary statistics**
Data Product Region ↗	**United States**
Publication Date ↗	**2019-01-01**
Data Product Sector ↗	**Education**

Dp Flavor

Name ↗	**Pure DP**

registry.opendp.org

Logo goes here

- Home
- Background
  - Introduction to Differential Privacy
  - Transparency Tiers
  - Trust Models
  - Further Reading
- Deployments Registry
  - Schema
- Further Information
  - Contributing
  - Official Standards and Guidance
  - Acknowledgements

Schema

Entries in the registry conform to a standard schema. The summary below may be slightly behind the latest version of the **JSON Schema** and **data entry template**.

Description of a differential privacy deployment. All strings will be rendered as markdown with latex in the frontend. The `tiers` in this schema are sug not rigorous requirements.

This schema is based on ongoing research by Elena Ghazi, Priyanka Nanayakkara, and Salil Vadhan.

`url_slug` (required string)	Used to create a stable URL.		
`status` (required string)	Approval status of this record. `Converted` / `Draft` / `Pending` / `Changes Required` / `Approved` / `Approved (Update Requested)` / `Approved (Pending)`		
`tier` (required integer)	The completeness of the description. For higher tiers, more fields are filled in, but this is guidance, rather than a requirement. `1` / `2` / `3` ▶ Details		
`deployment` (required object)	`product` (required object)	`name` (required tier 1 string)	The name of the data product
		`data_curators` (required tier 1 array)	The name of the entity publishing the data product. ▶ Details

```yaml
url_slug: flex-uber-2018
status: Draft
tier: 2
deployment:
  product:
    name: FLEX
    data_curators:
      - Uber
    intended_use: To compute privacy-protected SQL queries using existing SQL
      databases, in real time, at millions-of-records scale
    data_product_type: SQL queries
    data_product_region: Global
    description: A flexible end-to-end system for computing differential privacy
      using "elastic sensitivity" over heterogeneous existing database
      environments, at scale.
    publication_date: '2018-01-01'
    data_product_sector: Technology
  dp_flavor:
    name: Approximate DP
    output_measure: elastic sensitivity (upper bound on local sensitivity)
    data_domain: Multi-table relational database (schema unspecifed)
    unprotected_quantities: bin labels drawn from finite domains
  privacy_loss:
    privacy_unit: Tuple-level
    privacy_unit_description: |
      Each record corresponds to a tuple in a single table
      of a multi-table database. Tuples do not necessarily correspond to
      individuals.
    privacy_parameters:
      epsilon: 0.01
      delta: 'n^{(-\epsilon \ln(n))}'
    privacy_parameters_description: 'these parameters are used for evaluating the deployment, in operation the parameters are set by users on
```