2024 OHDSI Open Source Developers Conference

Today's Tour Guides:
Adam Black
Paul Nagy
Katy Sadowski
Dan Smith
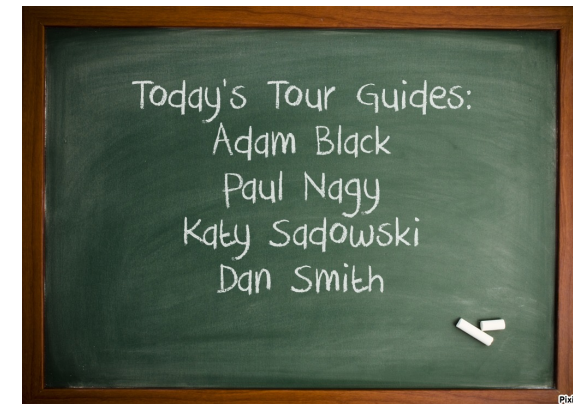
Welcome to the Eco-System

"I often compare open source to science. Science took this whole notion of developing ideas in the open and improving on other peoples' ideas. It made science what it is today and made the incredible advances that we have had possible."
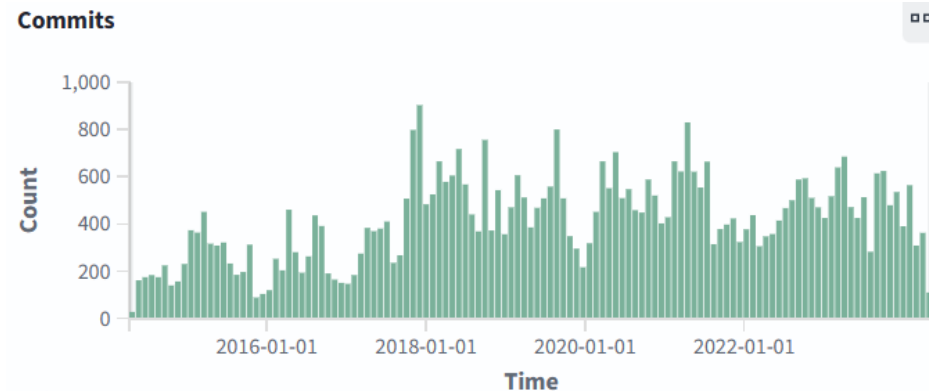
-Linus Torvalds
Creator of Linux
& Git

OHDSI Open Source Ecosystem

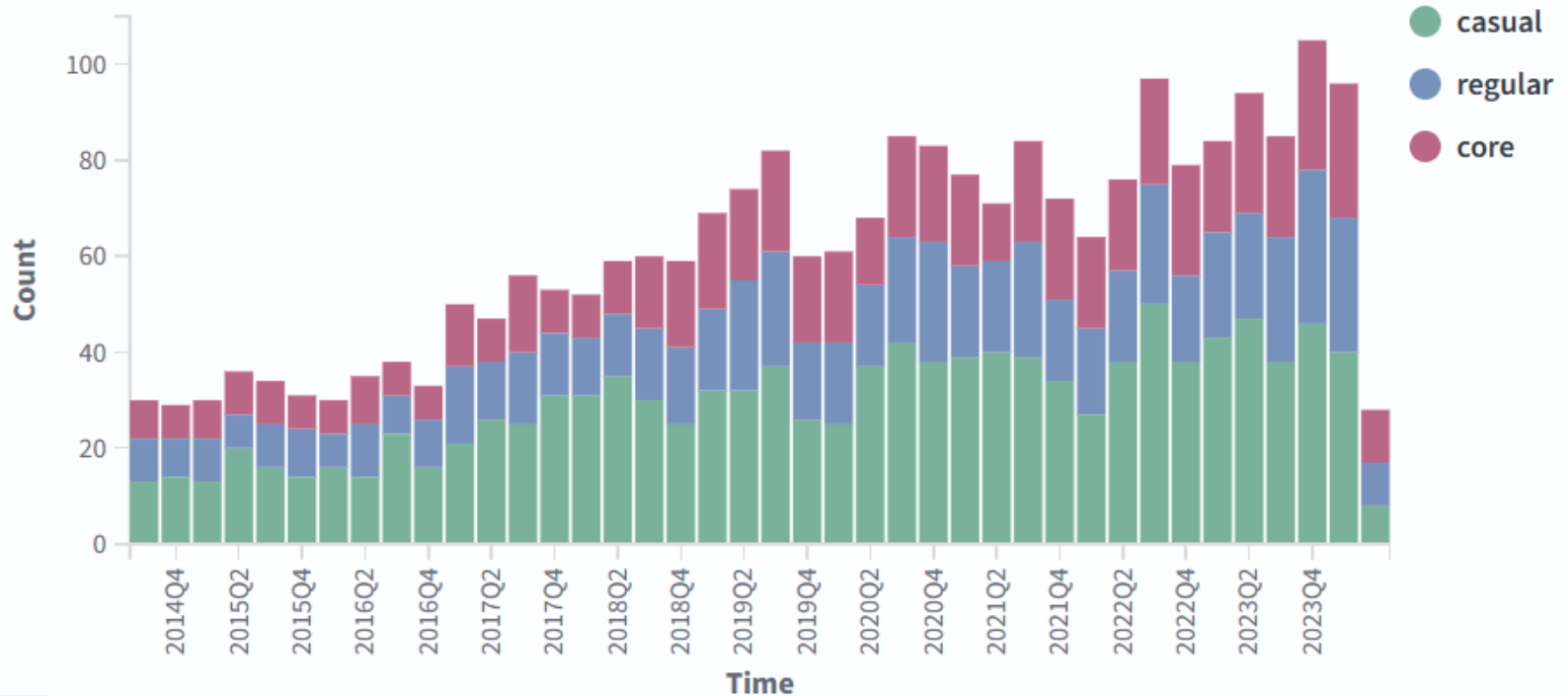- Software that supports the OMOP CDM
- In the Github OHDSI Organization
- Over the past 10 years
  - 284 Repositories
  - 611 Developers
  - 1,084 Issue Submitters
  - 10,812 Issues Submitted
  - 50,575 commits
  - 618,428 Files
  - 80,361,640 lines of code added
  - 45,717,357 lines of code refactored

Commits

Count / Time

Data analysis of Github contributions for the OHDSI Organization: Source bitergia

OHDSI developer community continues to grow

Community Structure

Data analysis of Github contributions for the OHDSI Organization: Source bitergia

Shoulders of Giants

Submitter		Issues
Kyle Zollo-Venecek		167
dkriethof		95
Russ Poetker		83
Mark Patton		79
Robert Miller		78
Frank DeFalco		69
Anthony Sena		67
Martijn Schuemie		67
Timothy Sanders		66
alondhe		54

Author		Commits
Martijn Schuemie		606
Jamie Gilbert		561
Egill Fridgeirsson		303
Anthony Sena		219
jreps		178
Martin Lavallee		171
alondhe		169
Dmitry S		156
Timur Vakhitov		146
Gowtham Rao		145

Submitter		Pull Requests
Anthony Sena		117
Russ Poetker		105
Jamie Gilbert		86
Mikhail-iontsev		73
Jared Galanis		71
Gowtham Rao		64
Mark Patton		62
Knoll		50
Egill Fridgeirsson		49
jreps		47

Legend:
- Johnson & Johnson
- Unknown
- Odysseus Data Services
- Janssen Research an…
- Erasmus MC
- OHDSI
- LTS Computing LLC
- Github
- Tufts Medical Center …
- TrialSpark
- The Hyve
- Johns Hopkins Univer…
- Peking University Hea…
- Arcadia Inc.
- Software Country
- Northwestern Univers…
- Amazon.com
- Columbia University

(Last year 4/25/2023-4/25/2024)

Data analysis of Github contributions for the OHDSI Organization: Source bitergia

Open Source activity in OHDSI Teams

Martijn Schuemie

Anthony Sena
Chris Knoll

Frank DeFalco

Adam Black
Paul Nagy

| HADES | Atlas/WebAPI | Technical Advisory Board | Open Source Working Group Kheiron Program |

Package	Version	Maintainer(s)	Availability	Open issues	Open pull-requests	Build status	Coverage	PaRe
Achilles	v1.7.2	Frank DeFalco	CRAN	42	10	R check passing	codecov 2%	Report
Andromeda	v0.6.6	Martijn Schuemie	CRAN	13	0	R check passing	codecov 89%	Report
BigKnn	v1.0.2	Martijn Schuemie	GitHub	1	0	R check passing	codecov 96%	Report
BrokenAdaptiveRidge	v1.0.0	Marc Suchard	CRAN	2	0	R check passing	codecov 96%	Report
Capr	v2.0.7	Martin Lavallee	GitHub	6	0	R check passing	codecov 80%	Report
Characterization	v0.2.0	Jenna Reps	GitHub	6	1	R check passing	codecov unknown	Report
CirceR	v1.3.3	Chris Knoll	GitHub	3	1	R check passing	codecov 89%	Report
CohortDiagnostics	v3.2.5	Jamie Gilbert	GitHub	63	6	R check passing	codecov 90%	Report
CohortExplorer	v0.1.0	Gowtham Rao	CRAN	0	0	R check passing	codecov 100%	Report
CohortGenerator	v0.8.1	Anthony Sena	GitHub	26	3	R check passing	codecov 98%	Report
CohortMethod	v5.2.1	Martijn Schuemie	GitHub	15	0	R check passing	codecov 89%	Report
Cyclops	v3.4.0	Marc Suchard	CRAN	18	0	R check passing	codecov 84%	Report
DatabaseConnector	v6.3.2	Martijn Schuemie	CRAN	21	1	R check passing	codecov 60%	Report
DataQualityDashboard	v2.6.0	Katy Sadowksi	GitHub	44	8	R check passing	codecov 85%	Report
DeepPatientLevelPrediction	v2.0.3	Egill Fridgeirsson	GitHub	22	2	R check passing	codecov 99%	Report
EmpiricalCalibration	v3.1.2	Martijn Schuemie	CRAN	1	0	R check passing	codecov 84%	Report
EnsemblePatientLevelPrediction	v1.0.2	Jenna Reps	GitHub	5	0	R check passing	codecov unknown	Report
Eunomia	v2.0.0	Frank DeFalco	GitHub	10	0	R check passing	codecov 72%	Report
EvidenceSynthesis	v0.5.0	Martijn Schuemie	CRAN	3	0	R check passing	codecov 78%	Report

TAB Charter

The OHDSI Technical Advisory Board Charter (TAB) is a document that serves as the guiding principles of the TAB. It outlines the TAB's mission, responsibilities, deliverables, and more, providing guidance for the board's operations and a clear framework for its decision-making processes.

Contents

- Mission
- Responsibilities
- Deliverables
- Stakeholders
- Member Qualifications
- Meeting Frequency
- Member Selection Process
- Code of Conduct
- Establishing Task Forces
- Member Mentorship
- Budget and Resources
- Transparency
- Decision Making & Conflict Resolution

https://ohdsi.github.io/Hades/packageStatuses.html

https://github.com/OHDSI/TAB/wiki

Today's Agenda

Morning Agenda

9:00 am – Introduction (Adam Black, Paul Nagy)

9:15 am – Developers Panel and Lightning Talks (Katy Sadowski)

- *OHDSI/OMOP – The hard way is the easy way!* (Vishnu V Chandrabalan)
- *Moving OMOP to the Cloud With DBT and Snowflake* (Roger Carlson)
- *Use cases for ORMs in OMOP* (Georgina Kennnedy)
- *Carrot: code-free OMOP ETL without full data access* (Sam Cox)
- *Rabbit-in-a-blender - an ETL pipeline to transform your EMR data into OMOP* (Pieter-jan Lammertyn)

10:45 am – Darwin EU® Developers Update (Adam Black)

12:00 pm – Break

Afternoon Agenda

12:30 pm – OHDSI Ecosystem Updates
- TAB Update (Frank DeFalco)
- Strategus Update (Anthony Sena)
- Broadsea Update (Lee Evans)
- Kheiron Updates (Paul Nagy)

1:15 pm – JACKALOPE PLUS The Power of ML for Healthcare Data Mapping & Management (Denys Kaduk)

2:00 pm - An Introduction to Knowledge Graphs using PheKnowLator and OMOP2OBO with Example Applications in Drug Surveillance and Computational Phenotyping (Tiffany Callahan)