

Research Portal for Secure Data Discovery, Access and Collaboration

CANARIE RDM Workshop & NDSF Summit

January 23-25, 2019

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canarie



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DU CERVEAU

Brain-CODE

 Researcher

External Restricted Data



Portal

Data Capture Resources



External Data Sources:  

Program Specific EDC Databases:  XNAT  REDCap  LabKey  OpenClinica  Subject Registry

MySQL PostgreSQL

External Linkage



Electronic Health Information Laboratory 

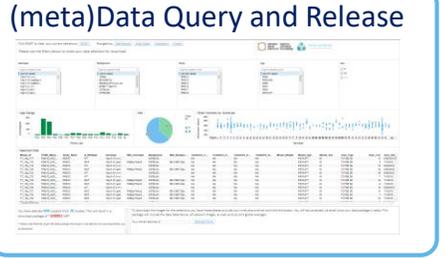
Homomorphic encryption-based linkage

Canvas

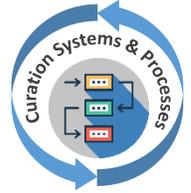
Admin Dashboards and Quality Control 

Analytics Workspace 

Study Dashboards 

(meta)Data Query and Release 

Python R MATLAB jupyter SPSS sas



Airflow

redis

KEYCLOAK

kafka

Platform Services

-  Security and Privacy
-  ID, Permissions & Ethics Management
-  Data Marshalling and Linkage
-  Provenance

Federated Data Warehouse

IBM DB2 PostgreSQL elastic Spark SQL Apache Thrift™

Project overview

- We work within a growing ecosystem of research teams and technology partners
- These research teams need data portals to
 - Publish content
 - Manage users
 - Contribute and access data
 - Share and collaborate

Project overview

We will leverage the experience of our collaborators



and integrate existing software tools to develop a portal framework that abstracts complexity and that is easy to use and adapt

Planned functionality and supporting tools

customizability, multi-tenancy

Drupal™

Joomla!

ckan

OSF

Plone

The Dataverse Project

UDATA

identity, authentication, authorization

freeIPA
identity | policy | audit

KERBEROS

keycloak

389
DIRECTORY SERVER

ORCID

data access

REDCap
Research Electronic Data Capture

R Studio

XNAT

TIBCO Spotfire

LabKey

OpenClinica
Open Source for Clinical Research

elastic

collaboration

Seafile™

Atlassian Confluence

Office 365

jitsi.org

Atlassian JIRA

ROCKET.CHAT

GitLab

Mattermost

slack

FAIR intersections

- **Findable, Accessible**

- immediate goals of this project
- consistent ways to discover and access data across research projects

- **Interoperable, Reusable**

- secondary goals
- supported by our parallel efforts in CONP, INCF, GA4GH
 - standardization
 - DATS, BIDS, W3C PROV ...
 - federation
 - open data when applicable
 - data sharing frameworks



NDSF intersections

We hope to work with this vibrant RDM/RDC community to

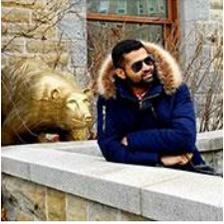
- help address gaps/opportunities within Canada's digital research infrastructure



- learn from and contribute to an emerging National Digital Services Framework

Team & acknowledgements

Indoc Research



Apurv Samant
Frontend Developer



Abraham Prince
Web Developer



Mojib Javadi
Director, Program Dev



Salim Haniff
DevOps Lead



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Data Mgmt Specialist



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Director, Systems Dev



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Informatics Governance



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Ontario Brain Institute

Collaborators and partners

