



alzheimer's association®

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**The Global Alzheimer's Association  
Interactive Network**

**A Portal to Alzheimer's Disease  
Research Data Connecting  
Scientists Worldwide**



Powered by  
**Laboratory of  
Neuro Imaging**

## THE PREMISE

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Research efforts could be **vastly expanded** in scope and capabilities if **data were linked to a global infrastructure** that enabled scientists to access a **large interlinked repositories of data** on thousands of subjects at risk for or already suffering from the ravages of Alzheimer's disease.



## WHY DOES IT MATTER?

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Giving researchers the opportunity to define large enough sample size cohorts for **meaningful results** and **replication**. Scientific research is demanding a comprehensive solution but **none have been created** to serve this need.



# THE PROBLEM FOR INVESTIGATORS

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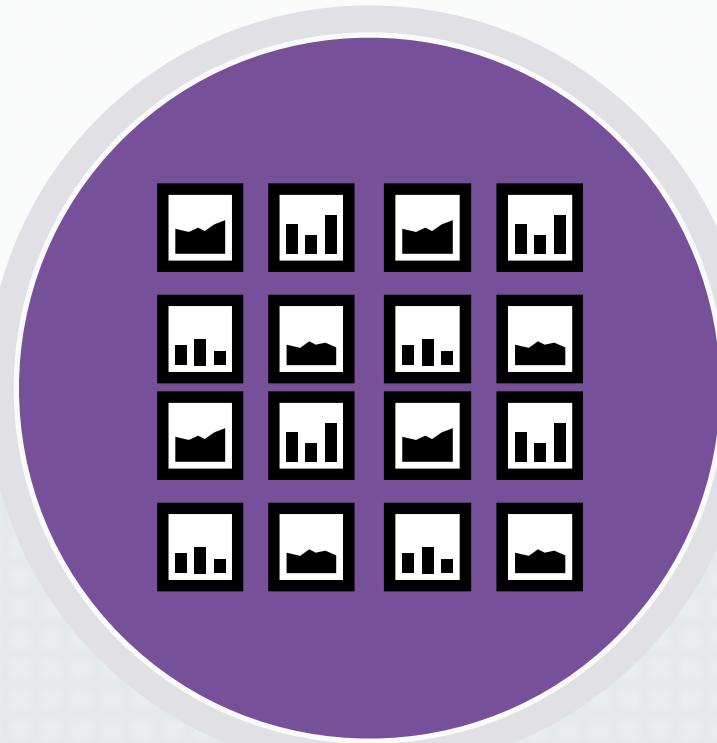
**Discovering  
existence** of data  
needed for  
investigation.



**Obtaining** data from  
other study  
investigators.



**Combining and  
interpreting** data  
**across** studies.



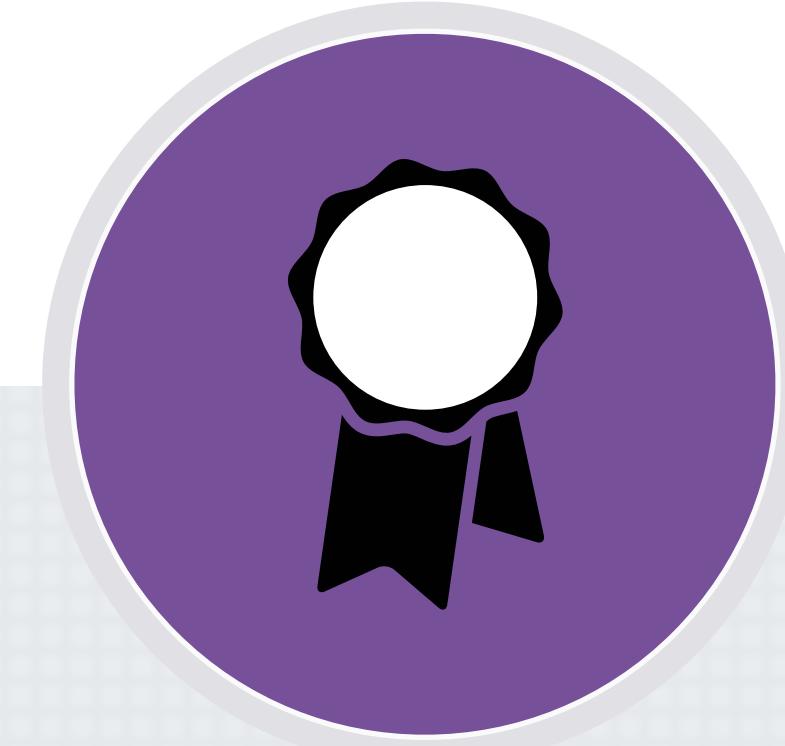
Analyzing **large  
quantities** of data.

## DATA HOLDERS CONCERNS

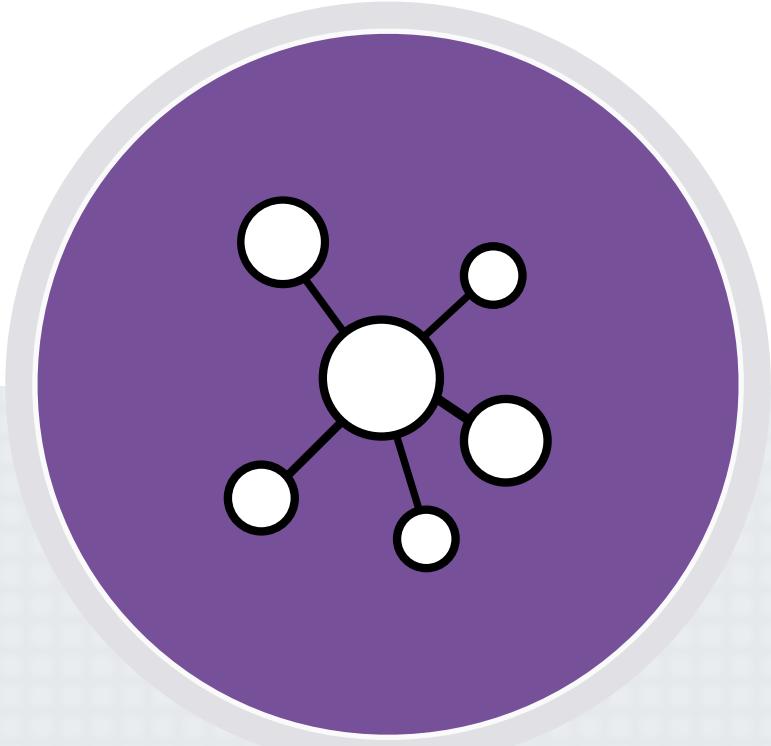
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**Protecting** subject  
**privacy.**



Receiving **credit** for  
acquiring & providing  
data.



Maintaining data  
**sharing**  
**infrastructure** &  
support resources.



Requires **expertise**  
**across domains**  
to interpret data.

# DATA ANALYSIS CHALLENGES

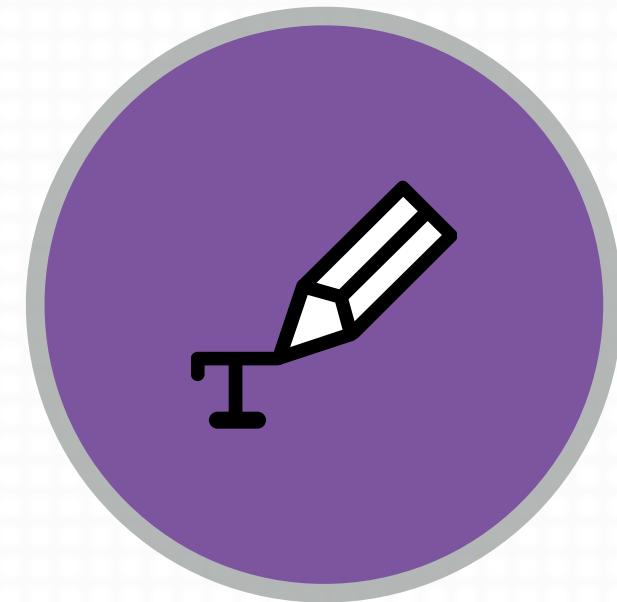
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Data are in  
**different**  
locations.



&

Different  
**nomenclature**  
**defines** data.



GAAIN links and  
homogenizes data  
**across multiple**  
**domains**.

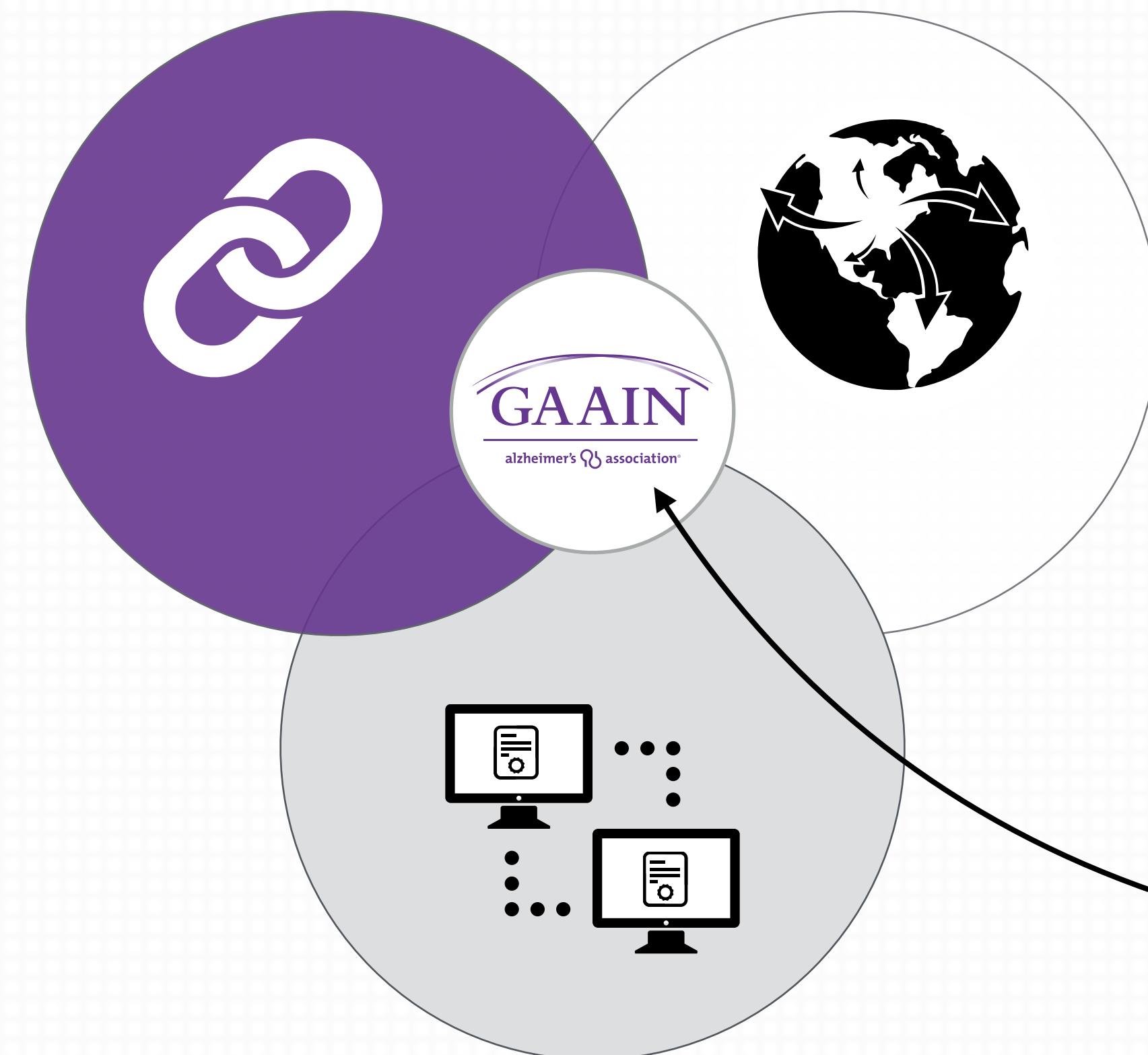
# THE FIRST GLOBAL DATA NETWORK FOR ALZHEIMER'S DISEASE

## Collaborative Effort

Providing researchers around the globe with **access** to a **vast repository** of Alzheimer's disease research data.

## Secure Networks

Aggregating information **without infringing** upon data **sharing policies** and regulations. Data Partners always **remain in control of their data**.

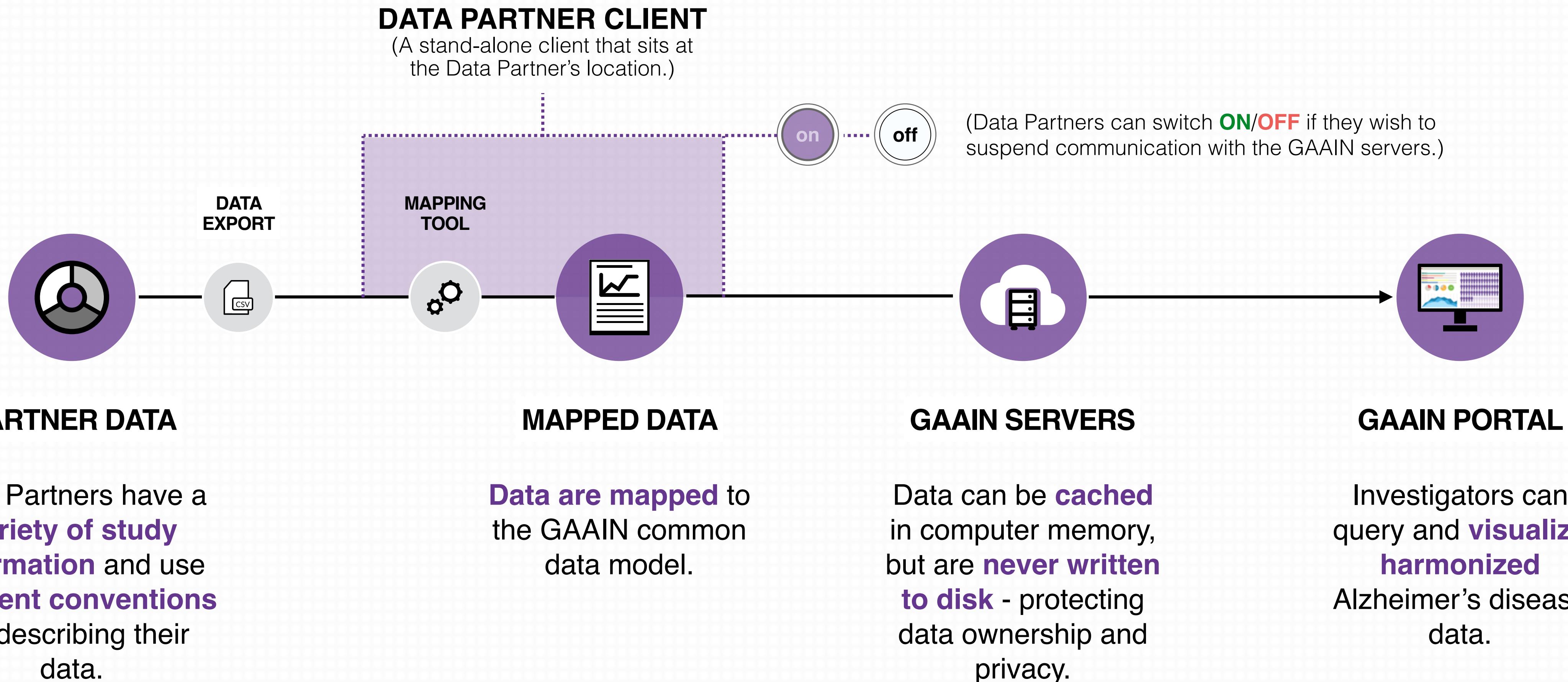


## A Global Research Hub

Allowing researchers to **search** across multiple data sources instantly and **contact** these **Data Partners directly** for data.

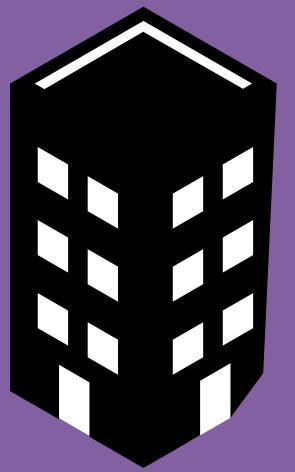
Opportunity to **connect scientists worldwide**.

# GAAIN ARCHITECTURE ADDRESSES DATA PARTNER CONCERNS



## GAAIN SOLUTION ADVANTAGES

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Data Partners remain **completely autonomous** from the federation servers.



A single **unified view** of the data sources can be maintained **as new partners are added.**



Partner's **responsibility** toward their study **subjects** are **not breached.**

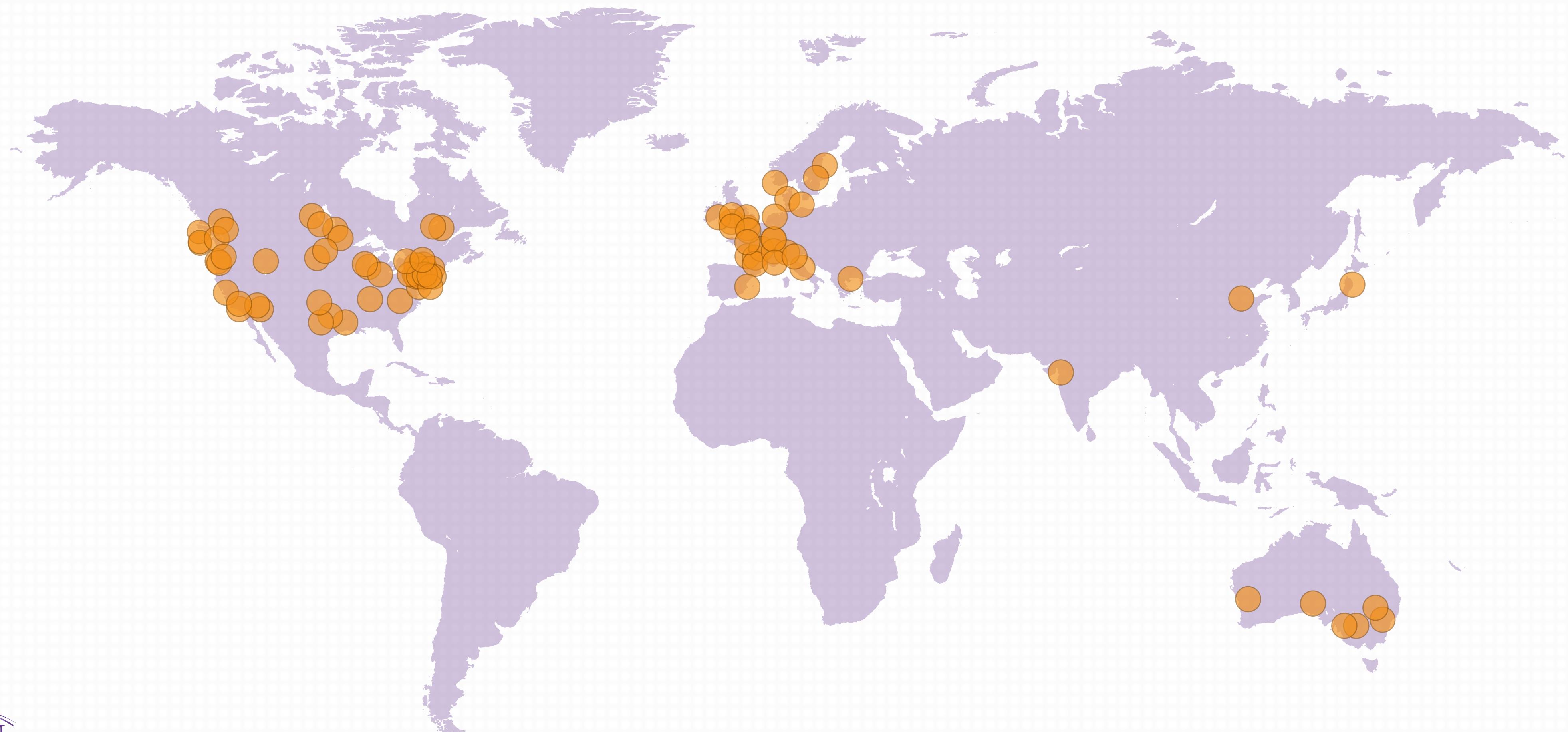


Partners retain **control over their data.**

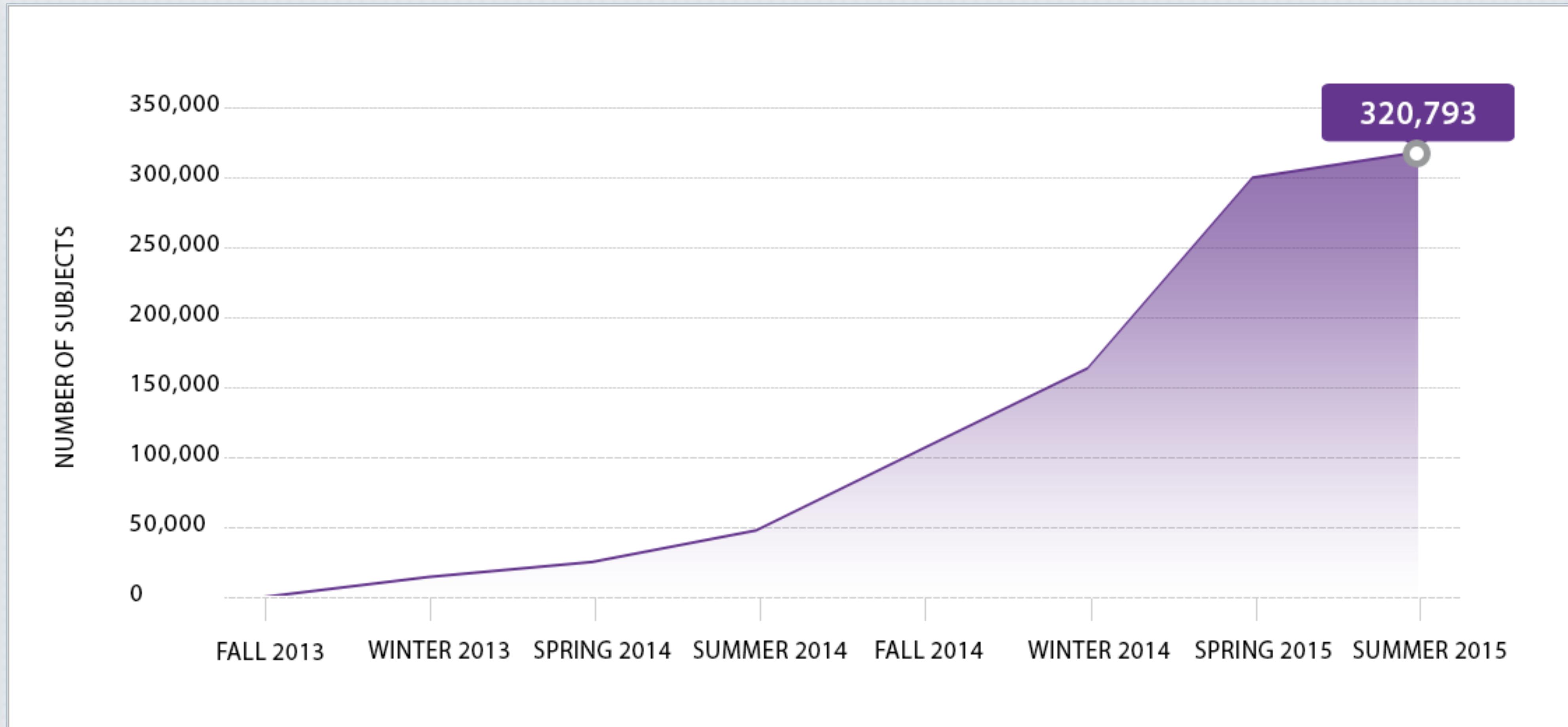
# OUR DATA PARTNERS

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GAAIN is in progress **on-boarding over 90+** Data Partners.

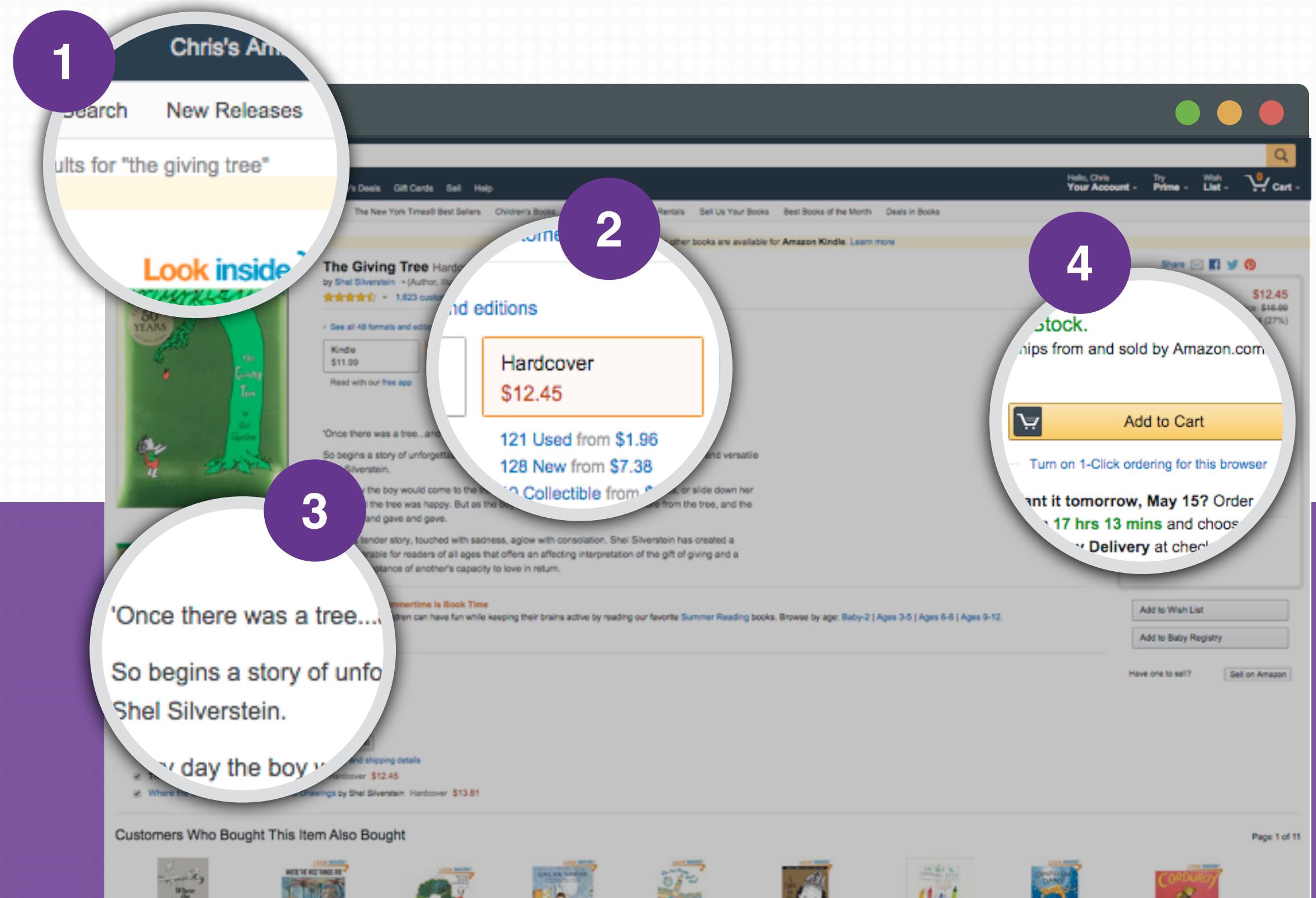


# NUMBER OF SUBJECTS SEARCHABLE IN GAAIN OVER TIME



# GAAIN'S FUNCTIONALITY IS COMPARABLE TO AMAZON

## 1 SET SEARCH CRITERIA



## 2 VIEW RESULTS

## 3 STUDY DETAILS

## 4 OBTAIN COPY

# ...WITH SLIGHT DIFFERENCES

1 SET SEARCH CRITERIA

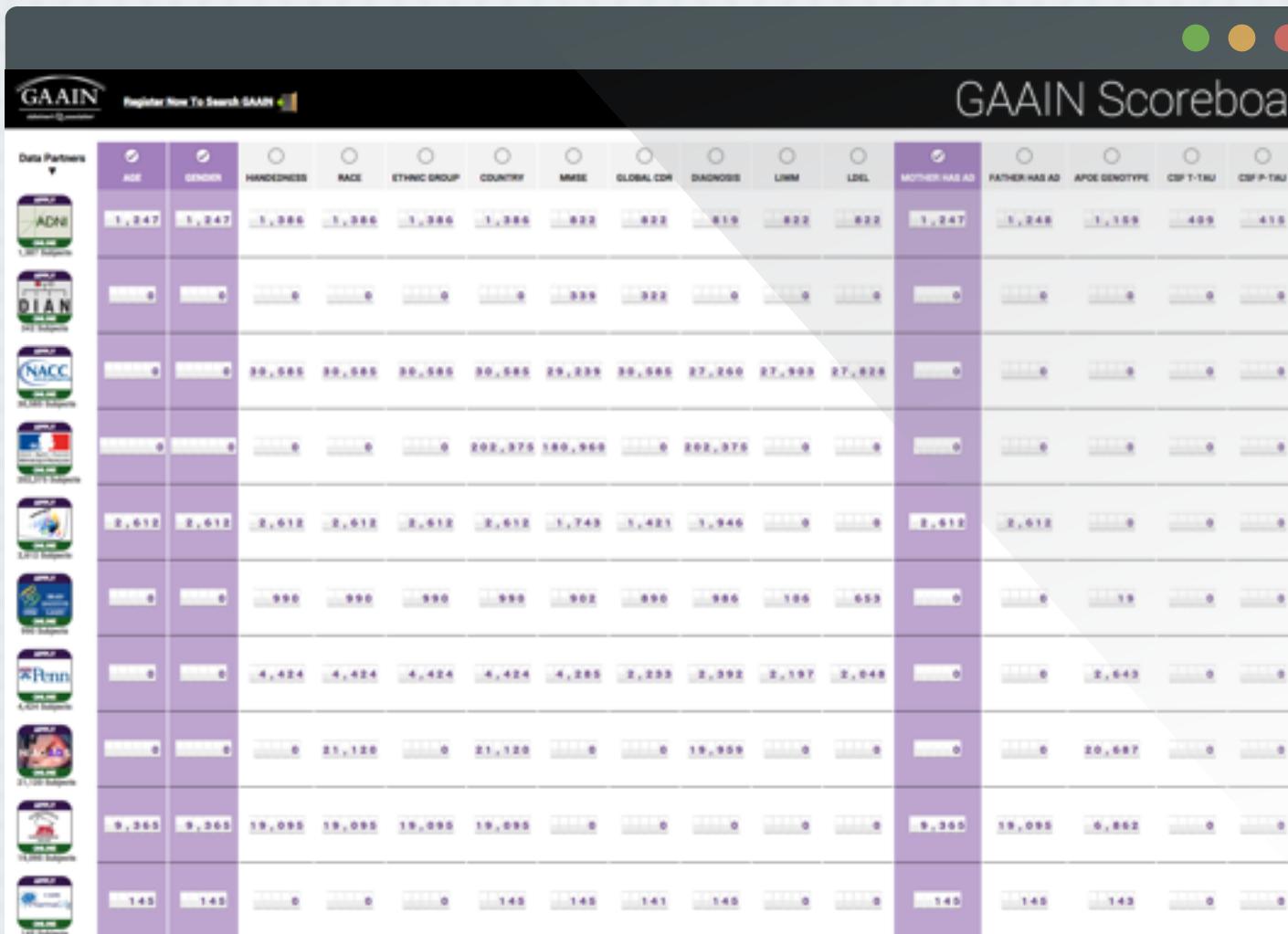
2 VIEW RESULTS

3 STUDY DETAILS ABOUT THE DATA FROM DATA PARTNERS

4 APPLY FOR YOUR OWN COPY



# SEARCH DATA WITH GAAIN SYSTEMS



## GAAIN SCOREBOARD

A front-end tool to **illustrate the breadth of variables** and subjects in GAAIN. It is publicly available **without a GAAIN account**.



## GAAIN INTERROGATOR

An easy-to-use interface to **study relationships of variables in self-defined study cohorts** across multiple sources. Access to the Interrogator **requires a GAAIN Investigator Account**.

## THE GAAIN TEAM

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**Arthur Toga**  
**Naveen Ashish**  
**Karen Crawford**  
**Scott Neu**

**THANK YOU.**