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?

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.
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

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

Data are in different locations.

Different nomenclature defines data.

GAAIN links and homogenizes data across multiple domains.
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.
Data Partners have a variety of study information and use different conventions for describing their data. Data are mapped to the GAAIN common data model. Data can be cached in computer memory, but are never written to disk - protecting data ownership and privacy. Investigators can query and visualize harmonized Alzheimer’s disease data.
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

GAAIN is in progress on-boarding over 90+ Data Partners.
NUMBER OF SUBJECTS SEARCHABLE IN GAAIN OVER TIME

- FALL 2013
- WINTER 2013
- SPRING 2014
- SUMMER 2014
- FALL 2014
- WINTER 2014
- SPRING 2015
- SUMMER 2015

NUMBER OF SUBJECTS

- 0
- 50,000
- 100,000
- 150,000
- 200,000
- 250,000
- 300,000
- 350,000

320,793
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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THANK YOU.