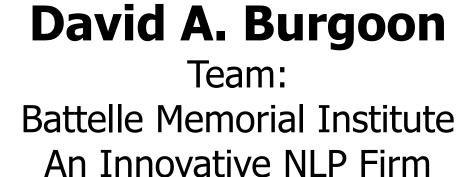
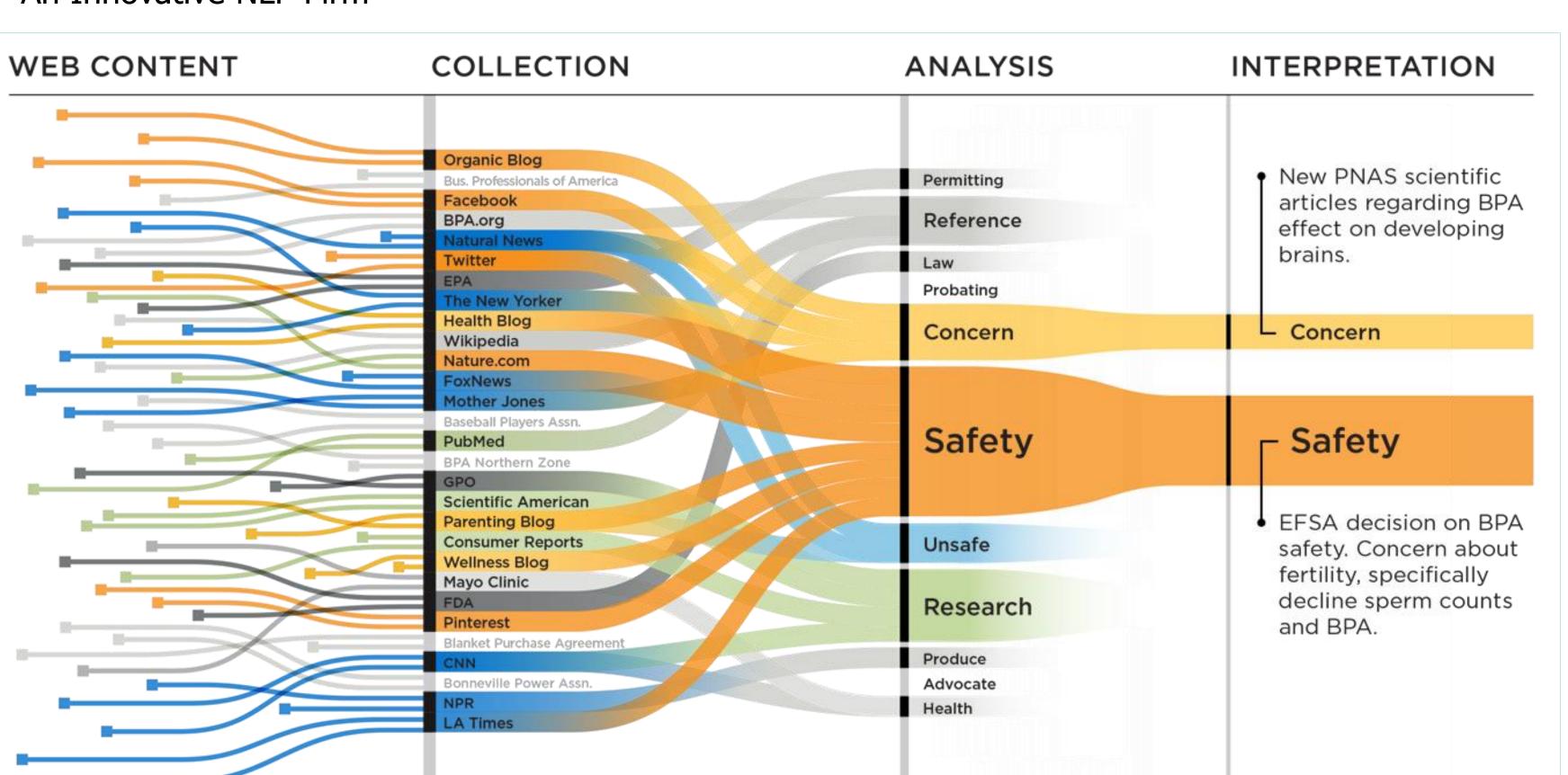
Battelle Memorial Institute





Our Capabilities and Expertise

Open Source Analysis

Battelle processes the full range of data corpora, from the world's S&T literature to internet content including social media, blogs, magazines, and news.

Extraction and Information Retrieval

Battelle delivers analysts highly structured, queryable data so they can focus on new insights rather than sorting redundant literature. We have created proprietary algorithms to assemble ontologies in an automated fashion.

Human-in-the-loop Interaction

The Battelle SematrixTM platform learns to better perform information retrieval over time, based on human feedback.

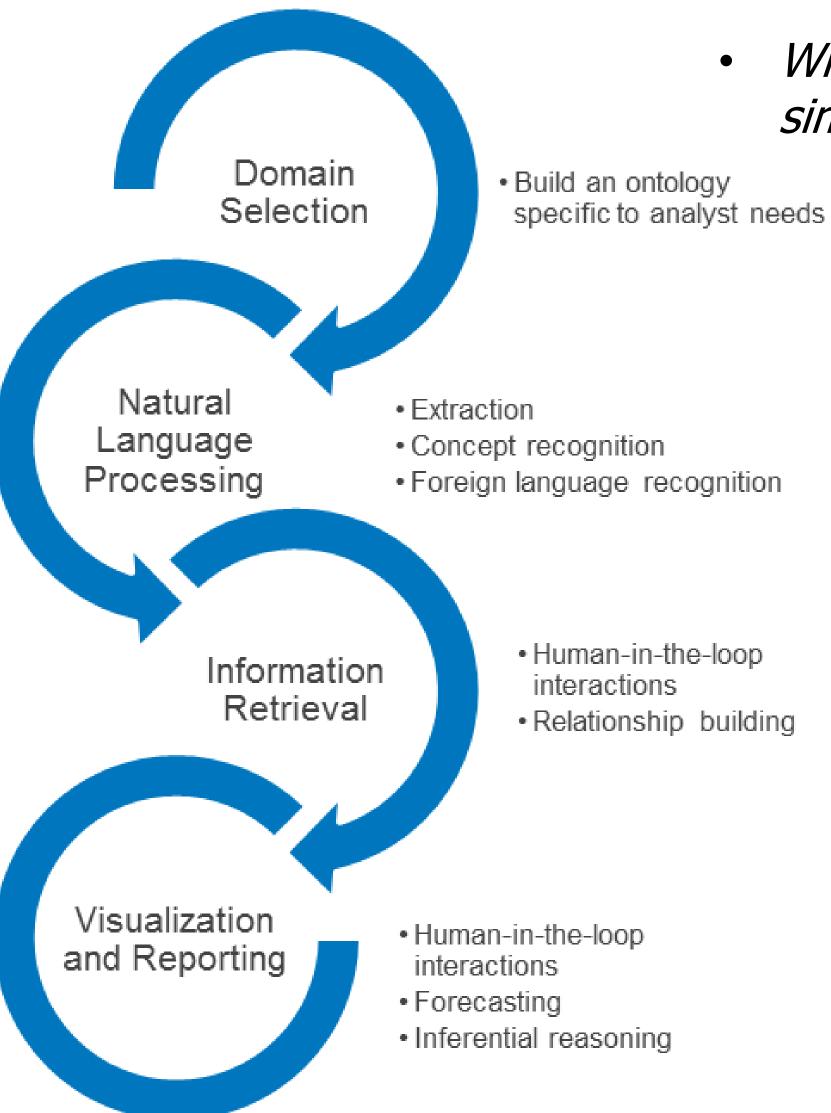
Personalization for Analysts

Battelle has long supported national security elements with subject matter expertise delivering individualized, mission-oriented tools and structured data. Battelle's NLP initiatives have included topics pertaining to healthcare, biotechnology, scientometrics, identity analysis, and biosecurity.

Foreign Language Expertise

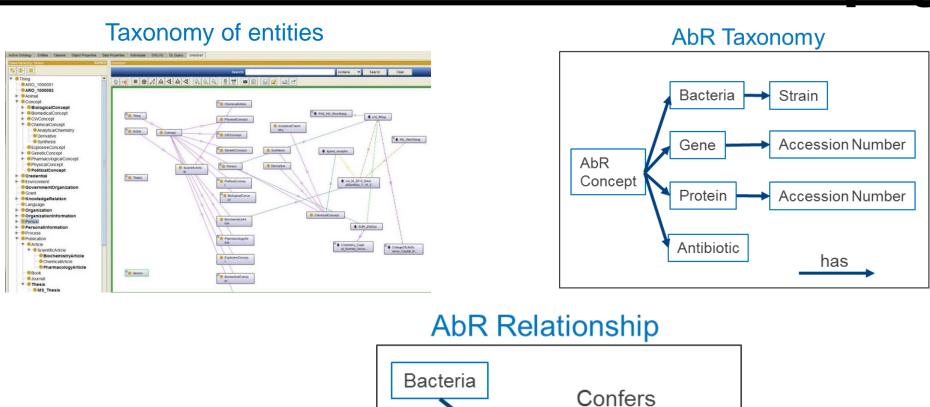
Battelle regularly handles information extraction both within the native language and, when effective, using machine translation to English.

Battelle SematrixTM



Our Current Research Areas

Personalized Semantic Relationship Queries



resistance to Our SematrixTM platform answers complex and specific questions leveraging information

resistance to

BATTELLE

extracted from a voluminous unstructured corpus. Examples of queries: Which authors have written about the protein

- encoded by this gene?
- What other genes have those scientists been researching?
- Who else at the same institute is working on similar research?

Disambiguation of Semantic "Twins" or Aliases

We are developing disambiguation algorithms to enable delineation of distinct entities named identically using pertinent metadata and relationships.

Integrating Lexicons with Similarity Recognition

Named entities or concepts frequently vary across sources. We are developing methods of recognizing alternative names and mapping them to our lexicons based on similarity algorithms.

David A. Burgoon, PMP **Senior Program Manager Battelle Memorial Institute** burgoon@battelle.org 571.227.6324 http://www.battelle.org

We are seeking partners in:

Information Extraction — Our team has honed processes for semi-automated extraction and retrieval across a breadth of sources but need further automation or more intelligent extraction.

Semantics – We need expertise with the full breadth of semantic analysis of native languages.