Collaborative
Medical
Research

Intelligent Extraction and Indexing of Biomedical Research

ALCHEMI

TRANSFORMING DATA

Overview

Valuable biometric data has been collected over decades and stored for future research; however, gaining access to this information has been a challenge due to the technology used to store it, and the lack of simple user initiated mechanisms to search and find the specific information needed. ALCHEMI was designed to solve these types of problems, overlaying the existing environment, providing users the ability to search and access content regardless of where its located or on what technology its stored.

Challenge

Every biomedical facility generates millions of research files annually. Currently there is no simple mechanism to search across these internal or external repositories using the embedded information contained within the files. Additionally every institution and organization uses similar terms but with enough variance to make it difficult to find all desired content.

Solution

The ALCHEMI solution from CitadelTek transforms how content is accessed, shared and analyzed, unlocking the value of data and making it useful well beyond its original intent. At the core of ALCHEMI is its Insight Engine, which automatically discovers, extracts and enhances data.

After connecting to the data repositories, ALCHEMI scans the file store, systematically opening files, extracting and indexing the header information and storing that information along with all of the associated file attributes in its Elasticsearch index.

ALCHEMI enables a customizable taxonomy to be created though a simple external file that allows the customer to construct custom terms based on key words, phrases, numbers or any other unique content their files might contain.

Users are now able to search across the data store, using basic keywords or the custom terms to identify desired results. ALCHEMI includes automated and manual tagging processes, which allows search results to be further classified – including the ability to create virtual containers called *Collections*, which enhances the community's ability to share and collaborate on the research.

Results

The valuable research, which was locked away due to technology limitations, has now been freed. ALCHEMI provides the portal into this valuable information, making it available on all platforms users desire including their mobile devices as well as creating a collaborative environment for data sharing, version management and user interactive communication.