

# Product Direction for 2019

## Background

VIVO is member-supported, open source software and an ontology for representing scholarship. VIVO supports recording, editing, searching, browsing and visualizing scholarly activity. VIVO encourages research discovery, expert finding, and assessment of research impact.

- In March 2018, the VIVO Leadership Group (LG) met at Duke University for an all-day strategy meeting to set project goals for the next 12 months.
- The LG formed five “action planning groups” to address the project’s most important issues; one of the groups, product evolution, volunteered to explore ways for the VIVO software to evolve.
- The LG reviewed 38 technical initiatives that had been proposed for VIVO over the past five years and developed a direction for VIVO development for the next year.
- This document describes the direction and the alignment of product evolution, core development, ontology development, and other efforts to advance the VIVO product in 2019.

## Product Direction for 2019

Leadership has identified four major product efforts for 2019, along with strategies for addressing each over the course of the year. Each of these efforts is important for 2019.

### 1. Modernize the presentation layer of VIVO

This includes the product evolution work on presentation, as well as work on internationalization, simple localization, responsive and accessible interfaces. The new interface will capitalize on new architectural work to support widgets and visualizations. Development efforts will be aligned with the goal of creating a modern new interface for VIVO.

### 2. Decouple the architecture

This occurs on two levels -- VIVO as an ecosystem of applications (combine, search, data store, presentation, analytics) and within the core, separating indexes, presentation, and inferencing, as well as additional components such as the data distribution api, user tracking, access control, and workflow. Decoupling includes new maven build processes supporting the decoupling. Decoupling also includes architectural work to support widgets and visualizations.

### 3. VIVO Combine

The VIVO ecosystem needs an open source tool for collecting, identifying, and transforming institutional data such as employment, teaching, and repository entries, with external data such as records from indexing services, into data that can be used by the VIVO ecosystem. This major effort requires planning. Planning such a development effort could possibly be financially supported by a grant to the VIVO Project. VIVO will pursue planning grant funding for the VIVO Combine.

### 4. VIVO Search

LG believes cross-site search is of less importance for 2019, and that more conceptual work is needed to determine how search might be used in a VIVO ecosystem, how it might relate to cross-site linking, and how search might be facilitated by new distributed web technologies in VIVO, such as TPF. A symposium for the conference in Podgorica is suggested as a mechanism for idea generation around se

## Alignment of Efforts

Working together, the VIVO project will:

- Explore options for building a new front-end for VIVO that is:
  - Fast-performing, lightweight, and easy for search engines to find and crawl
  - Easy for developers to implement, customize, and refine
  - Attractive, functional, responsive, internationalized, and accessible
  - Easy for developers to add widgets and visualizations
- Develop a streamlined proof of concept front-end
- Summarize findings and make a recommendation by March 2019

Furthermore, the VIVO project will:

- Prepare for a new front-end choice by continuing to decouple the architecture and improve the build processes
- Develop a widget and visualization architecture that can be used with the improved build process, the new front-end, and the existing front-end to rapidly develop and deploy new widgets and visualizations
- Continue work in access control, activity tracking, and reporting
- Continue work to clarify and extend the ontology

The VIVO project will not :

- Replace VIVO 1.10 or the entire VIVO stack
- Attempt to produce an alternate, production-ready version of VIVO

- Propose an alternate data model for VIVO. Data structures and technologies capitalizing on VIVO may be proposed and demonstrated to support a new front-end
- Propose a strategy for transitioning the current VIVO code base and replacing the current feature set

## Guiding principles for all work

Guiding principles for these initiatives include:

- Engage the users of VIVO in the development of use cases and product
- Enable sites to use VIVO with or without the modernized presentation technology
- Preserve compatibility with the VIVO ontology
- Enable flexibility in the VIVO stack so that modules can be used or swapped as needed
- Use agile and SAFE development principles
- Continue to support previous versions of VIVO
- Continue to explore open questions together, as a community