Product Evolution Update

March 1, 2019
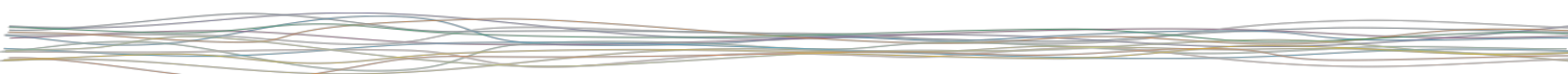
Background

- VIVO Strategy Meeting, March 1, 2018.

- One of the action planning areas: Product Evolution. The purpose of action planning is to create a plan and execute it over the the twelve month period March 1, 2018 to Feb 28, 2019.

- See Planning doc https://goo.gl/Uxzrp2

Process

- Maximize cross-institutional contribution and participation

- Weekly meetings

- Work incrementally and iteratively in short iterations or code sprints

- Documentation!

- Slack, Git Hub, Google Docs

- Participants attending two or more meetings

  - Duke (Richard, Damaris, Hans, Greg, Rob, Harry, Jim)

  - U. of Colorado (Don, Alex)

  - Weill Cornell Medicine (Sarbajit, Paul)

  - U. of Alabama at Birmingham (Ralph)

  - Stanford (Michael G., Aaron C.)

  - U. Penn (John Mark, Joe)

  - UCSF (Eric)

  - Virginia Tech (Andi)
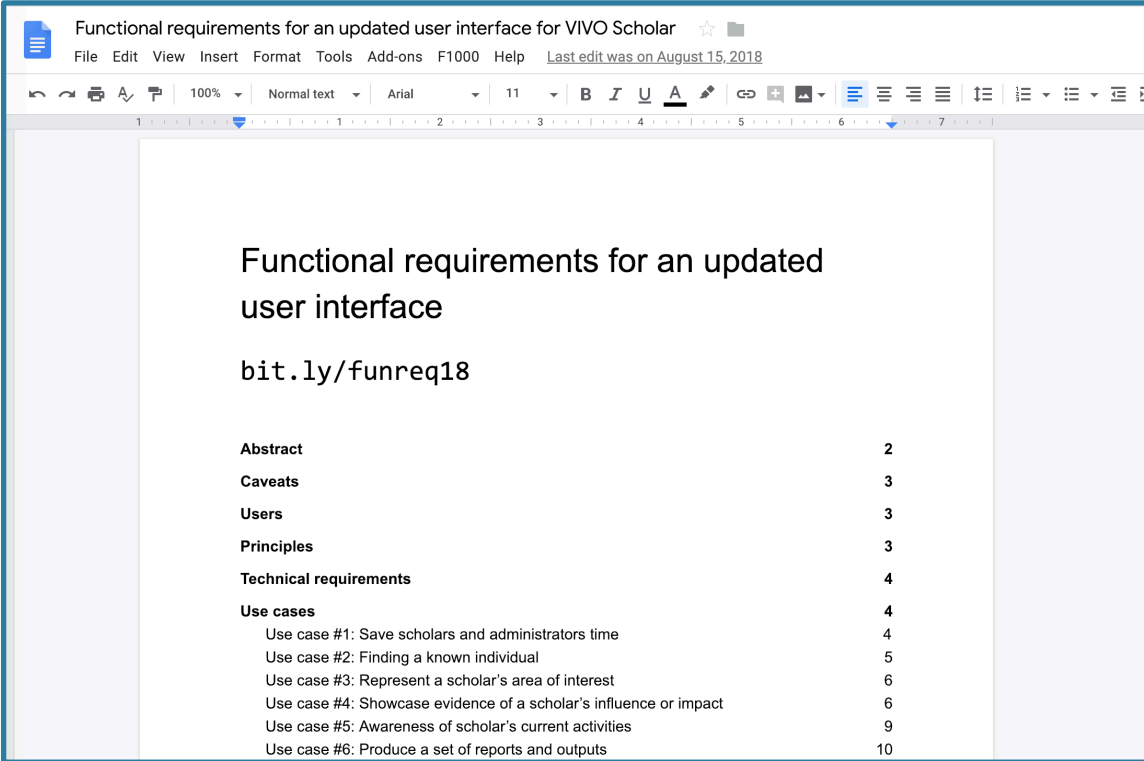
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Vision

- Produce a minimal viable product (MVP) for an agile web/ mobile application that showcases the researchers, units, and scholarly works of an institution with their branding.

- This proof of concept will prioritize the most urgent needs of existing and prospective VIVO users.

- Branding:

  - Initiative: Product Evolution

  - Product: VIVO Scholar

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Analysis: Hierarchy of needs

- Level 0: Profile system is reliable

- Level 1: Institutional developer can easily configure profile system to import data from other systems.

- Level 2: Profile system has polished, functional, and captivating interface

- Level 3: System exposes data for reuse in institutionally maintained systems

- Level 4: System supports institutionally-driven reporting and analytics

- Level 5: System shares data with third-party extra-institutional systems

- Level 6: System effectively manages semantic data requests for data from unknown requestors

- More: https://goo.gl/7pkCZb

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Analysis: Functional requirements for UI

http://bit.ly/funreq18

Goals

- System insulates all parties from complexity. Easy to: install, seed with data, extend, use…

- Beautiful and functional

- Users can explore the data in any number of ways

- Code is highly modular

- Uses open source technologies

- Internationalization

- More: https://bit.ly/2SqpfdX

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Out of scope

- Full integration with VIVO-ISF

- VIVO/Vitro "core" development

- Retrieving data from source systems

- Data management

- Syndication

- Data hub

- Cross-site search
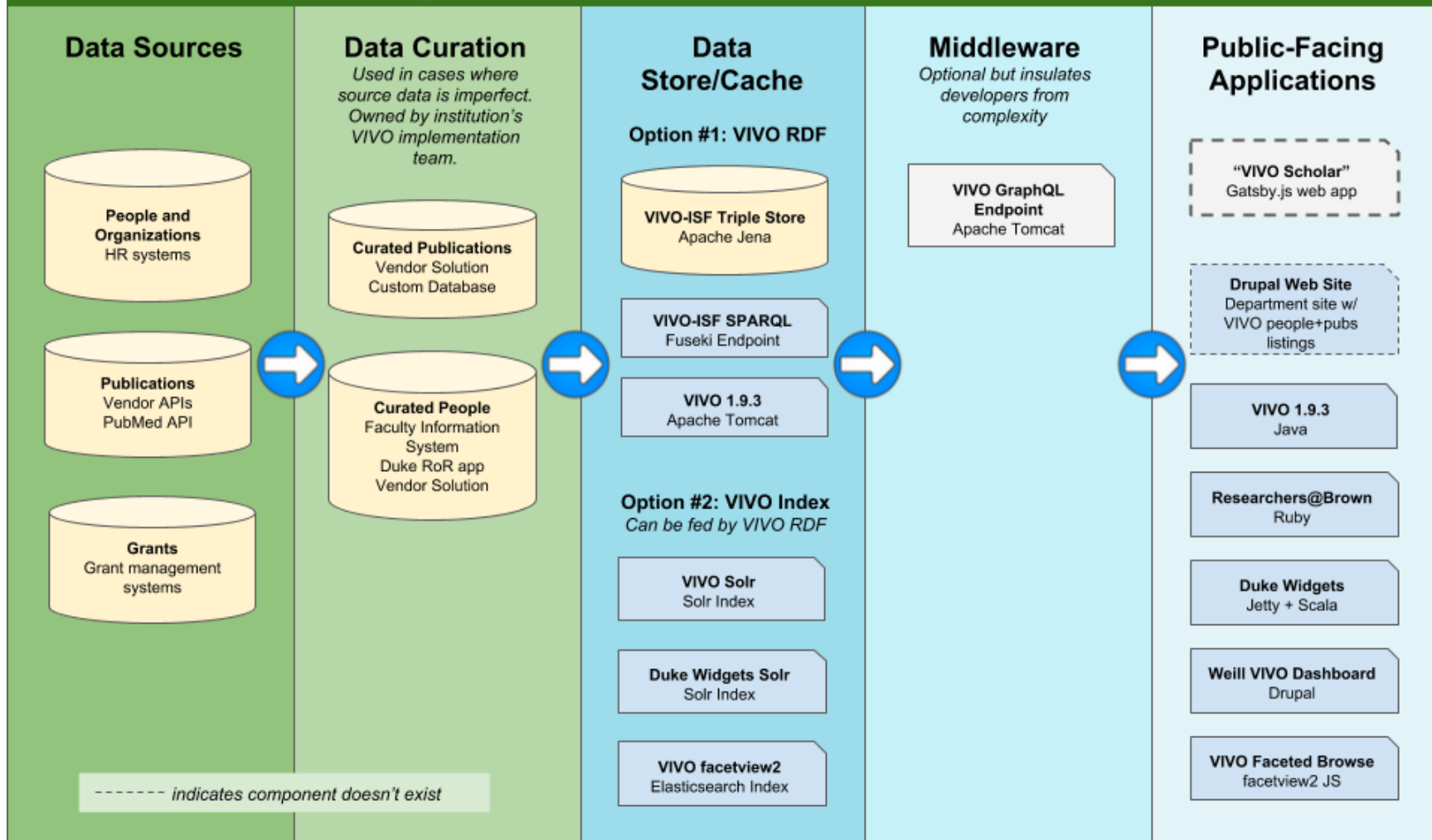
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Architecture

- Data store (ElasticSearch)

- Web application including search and visualizations (ReactJS)

- Query endpoint and manipulation language (GraphQL / GraphiQL)

- Static site generator (Gatsby?)

- Deployment tool (Docker?)

- Back end

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VIVO Scholar Proposed Architectural Stack

Data Sources

People and Organizations
HR systems

Publications
Vendor APIs
PubMed API

Grants
Grant management systems

------- *indicates component doesn't exist*

Data Curation

Used in cases where source data is imperfect. Owned by institution's VIVO implementation team.

Curated Publications
Vendor Solution
Custom Database

Curated People
Faculty Information System
Duke RoR app
Vendor Solution

Data Store/Cache

Option #1: VIVO RDF

VIVO-ISF Triple Store
Apache Jena

VIVO-ISF SPARQL
Fuseki Endpoint

VIVO 1.9.3
Apache Tomcat

Option #2: VIVO Index
Can be fed by VIVO RDF

VIVO Solr
Solr Index

Duke Widgets Solr
Solr Index

VIVO facetview2
Elasticsearch Index

Middleware

Optional but insulates developers from complexity

VIVO GraphQL Endpoint
Apache Tomcat

Public-Facing Applications

"VIVO Scholar"
Gatsby.js web app

Drupal Web Site
Department site w/ VIVO people+pubs listings

VIVO 1.9.3
Java

Researchers@Brown
Ruby

Duke Widgets
Jetty + Scala

Weill VIVO Dashboard
Drupal

VIVO Faceted Browse
facetview2 JS

Planning: Data specification

Product Evolution Data Specification v0.1

File Edit View Insert Format Data Tools Add-ons Help   Last edit was made 13 days ago by Richard Outten

Professional contribution outside the institution

	Field (key)	Usage	Data type	Obligation
2	person	Profiled person	Hash	[0,n]
3	person.id	Unique identifier associated with a person	String	[1,1]
4	person.sourceId	Unique identifier associated with a person as maintained in third-party source system	String	[0,1]
5	person.uri	URI, constructed from the ID, associated with a person	URI	[1,1]
6	person.name	Name for the person represented by the document.	Hash	[1,1]
7	person.name.firstName	First name for the person represented by the document.	String	[1,1]
8	person.name.middleName	Middle name for the person represented by the document.	String	[0,n]
9	person.name.lastName	Last name for the person represented by the document.	String	[1,1]
10	person.name.suffix	Suffix for the person represented.	String	[0,1]
11	person.name.prefix	Prefix for the person represented.	String	[0,1]
12	person.identifier	Other identifiers for the person represented	Hash	[0,1]
13	person.identifier.orcid	ORCID for the person represented	String	[0,1]
14	person.identifier.isni	ISNI for the person represented	String	[0,n]
15	person.type	An institutionally defined designation for the person represented.	Hash	[0,n]
16	person.type.code	The source system's code for the designation.	String	[0,1]
17	person.type.label	The label for the type associated with the source system.	String	[1,1]
18	person.primaryTitle	The primary institutional title for the person represented. May be curated.	String	[1,1]
19	person.keyword	Term for a concept that applies to or describes the Person's area of work.	Hash	[0,1]
20	person.keyword.id	Unique identifier associated with a keyword	String	[1,1]
21	person.keyword.uri	URI, constructed from the ID, associated with a keyword	URI	[1,1]
22	person.keyword.label	Textual form or label of the keyword	String	[1,1]
23	person.keyword.source	Source vocabulary for the keyword label and identifier.	String	[0,1]
24	person.keyword.sourceId	Identifier for the keyword within the vocabulary.	URI	[0,1]
25	person.image	Image associated with a person	Hash	[0,1]
26	person.image.thumbnail	URL to a thumbnail view of the headshot.	URL	[0,1]

https://goo.gl/qBqz4e

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Planning: Mockups

https://goo.gl/YtCJ76

Roadmap

- Pre-MVP
    - GraphQL endpoint up and running
    - Reasonably complete sample data populated in ElasticSearch
    - Data specification represented as JSON
    - Create sample pages: person, publication, home, search by object, display of facets
    - Output pages using static site generator
- Post-MVP
    - Reconcile existing data model against VIVO-ISF or its successor
    - Continue as Task Force
- More: https://goo.gl/M88Qhs

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GraphiQL demo

- GraphiQL instance - https://goo.gl/RSQ7pR

- Sample queries - https://goo.gl/8S9rtV

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Future plans

- Finish remaining milestones

- Figure out how we integrate/operate with vivo core

- Convert Product Evolution into an interest group

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