VIVO Workshop Opportunities and Challenges

Opportunities

a. Global Calendar of events, filtered by one’s interest
b. Create a “Grand Challenge” roadmap for research dream tools – use as common language for dev
c. Define “De-facto” standards
   i. Data Adaptors
   ii. Open
   iii. Data integration Facilitation
d. Demonstration of linked reach of VIVO data to other data not now possible
e. Unique identifier for major research components – author, data, algorithm, software, experiments, title, figure
f. Unique Identifier for X, x being institutions, data, software, etc.
g. Identify triggers in launching any NRN tool that can allow for creation of URLs, ORCIDs, etc
h. Multi Platform – VIVO for:
   i. iPhone,
   ii. iPad
   iii. iMac
iv. other phones

i. Ability to have closed/private/local instance and select publishing of data to “public framework”

j. Establish precedent for global NRN URI namespace

k. Vocabularies like MESH for other fields

l. Intentional Ontology Registry

m. VIVO as source of trustworthy identity information – ORCID

n. Need for quality open data is increasingly recognized across constituencies

o. Integrate local and federal data, Reporter, research.gov, etc

p. Cross community matchmaking

q. Open Data to link across domains (engineering, medical, CS, etc)

r. Link funding sources into VIVO

s. A way to join VIVO if my school doesn’t have one

t. Bounty network for scientific problems (mini-grants and micro-grants)

u. Enhance research collaborative

v. Link VIVO data to semantic publishing

w. VIVO Collab VIVO & Exhibit & Institutional Repos & Publishing opportunities & Auto vita

x. Skills search engine

y. Multi-disciplinary development of VIVO

z. “Expert” Locator

aa. To recommend people to one that they wouldn’t look for necessarily

   i. “things & people I didn’t think about”

bb. Recommender system

   i. Other researchers working in same field & same or different expertise

cc. Automatic generation of 2-3 person “potential” teams for calls for proposals

dd. View the context of a research topic or a team:

   i. “near” topics/papers

   ii. Places

   iii. Current/old collaborations

   iv. Timeline of activities

e. Multi-perspective VIVO profiles

ff. Disciplinary “map” key:

   i. People

   ii. Journal

   iii. Funding sources

   iv. Conferences

   v. (stuff for someone new to area)

gg. A builder component to complement/fee exhibit

hh. Combine LOD with private research data for projects

ii. Virtual field trips through science

jj. VIVO app Store
kk. Encourage more requests for features from “real life” tools (ie. Netflix) to generate new ideas from researchers

ll. Different level of comparison
   i. Person
   ii. Group (team)
   iii. Institution/Department
   iv. University
   v. Country

mm. Publication outlet recommendations

nn. Cross-pollination
   i. Trade where do:
      1. Trainees
      2. Jr. Faculty
      3. Sr. Faculty
      4. Career trajectories

oo. Tracking scholarly outputs
   i. Publications
   ii. Reviewing
   iii. Courses taught
   iv. For incentivizing
   v. For measuring impact

pp. Automated CVS (per agency)

qq. Status/Prestige within multiple academic fields of:
   i. People
   ii. Institutes
   iii. Geographic areas

rr. Credit report-like dossier for tenure funding decisions

ss. Custom/personal research “newsletter” (weekly/monthly reports of “important” events)

tt. LinkedIn style trusted recommendations

uu. Link research outcomes & “newer” indicators

vv. Personalize conference Recommendation system
   i. Whom should I meet
   ii. Which session should I attend
   iii. Which paper should I read

ww. Define roles and request contacts to fill them for collab. Team formation tool:
   i. I need ____ , ____ , ____ (list positions, VIVO gives name suggestions)

xx. Determine which combination of researchers increase productivity, quality, productivity of research

yy. Creation of distributed VIVO-based peer-review networks for article publication reviews and evaluations/discussions

2.

   a. Analytics that help policy makers/funding orgs
   b. Temporal – monitoring of topic trends of my publishing community
c. Geo-Locate – I want to “check-in” to VIVO when I’m at a conference so I can have a log of where I’ve been and so I can connect with others at the same conference
d. Topical – published meta-analysis paper based only on VIVO repository data

   a. I want VIVO to send me alerts via text, email, sms about any RDF that I watch
   b. Educate Tech community re. semantic web
      i. Train students in semantic web
   c. Standards for higher education data warehouses
d. Create partnerships with commercial tools for cases & intros, eg TopBraid
e. More data in VIVO from more sites around the world

Challenges
a. Managing Person data quality decay
b. Invitational Constraints
   i. Funding and/or human resources
   ii. Semantic web expertise
c. Data Sources for Humanities (book chapters, etc.)
d. Semantic Web learning curve
   i. For university developers
e. Openly usable datasets
f. Data – completeness, quality, timeliness
g. Identifying persistent, high quality semantic web data providers
h. Recruiting Data, keeping it up-to-date
i. Sustained Authoritative Content
j. Trust in VIVO data and relationships
k. Provenance management
l. Dealing with dead VIVO researchers (Historical VIVO data)
m. Establishing registries – who should step up?

n. Multiple personas

o. Multi-level cartography for the management of science:
   i. Individuals-teams-topics-organizations
   ii. During time and space
p. Institutional policies on sharing data via LOD (& differences in state/applicable laws)
q. How to get NIH to adopt/use VIVO or other NRN
   i. This would ensure 50% adoption rate
r. “MIT Physicist Problem” – Research networking systems make high profile researchers appear more visible/accessible than they can be
s. I just graduated and people won’t work with me because I don’t have anything to put in my profile yet
t. Researcher Response “I want to control how I am presented to the world”
u. Researcher Response “don’t create a profile for me unless you can guarantee it is complete and accurate”
v. Access control for information
w. Providing flexible, strong access control in an open data environment
x. Public vs. Private (IP)
y. Access control for RDF triples
z. Add annual faculty research data to VIVO/NRN data

aa. What are the 3 words/sentences to summarize what VIVO can do and other existing tools cannot
bb. Searching across all VIVO repositories
cc. Reconciling administrative vs. researcher goals/needs
dd. Semantic tools not as scalable as RDBMs tools yet
e. Proxy access for support staff/administrators vs control
f. I care about 10-100 people not about 10,000
   i. Need VIVO for just my lab/team
gg. Coordinating VIVO community for development, standards

hh. Ontology
i. Create
ii. Maintain
iii. Version
iv. Population
v. How to include data about ideas, projects

ii. Deal with conflicts
   i. Property
   ii. Ontologies
   iii. Access

jj. Adoption implement critical mass/number research network tools that provide semantic web linked data (RDF & ontology)
kk. Potential adopters getting time/resources to hurdle the semantic web learning gap