RDA/US Sustainability White Paper

February 2016

Note to the RDA/US Community:

This White Paper is a first step in trying to create (and subsequently implement) a sustainable model to support the RDA/US Community post-2018 (when the NSF RDA/US organizational grant will complete). Ideas in this White Paper arose from preliminary discussions by Larry Lannom, Bob Hanisch, Rebecca Koskela, Mark Parsons, Fran Berman and others.

The ideas herein are intended to kick-off a broader community discussion. As a start, this White Paper presents a potential option for "RDA/US 2.0" (post-2018) based on a successful model currently used to sustain several community organizations. We are both soliciting comments on this model as well thoughts on other models and ideas for sustaining RDA/US. Please share your comments and ideas on the White Paper Wiki on the RDA/US website (we will send the URL in a few days). We hope to use the evolving discussion over the next few months to identify key sustainability approaches so that we can focus on implementation challenges and issues for consensus options at and after the 2016 RDA/US Leadership Meeting.

In this White Paper, we have also tried to articulate the value proposition for RDA and RDA/US. We welcome comments and modifications on this as well.

Thanks very much for your engagement!

I. INTRODUCTION (Value Proposition)

RDA

The Research Data Alliance (RDA) is an international community-driven volunteer organization whose membership broadly spans the data community.

The Research Data Alliance (RDA) builds the social and technical bridges that enable open sharing of data. [RDA Mission Statement]

The RDA vision is researchers and innovators openly sharing data across technologies, disciplines, and countries to address the grand challenges of society. [RDA Vision Statement]

The above statements summarize the high-level goals of the RDA. These goals clearly resonate with the research community, as reflected by participation in RDA of 3600+ individual members from 104 countries (February 2016). Key to the achievement of the mission and vision of RDA is its organizational sustainability and key to RDA's organizational sustainability is the value proposition that **RDA accelerates innovation** by driving the community creation and adoption of infrastructure needed to make open access data discoverable, accessible, and useful.

Benefits Provided by RDA

Perhaps the most immediate benefit of participation in RDA is learning from others in the field of data management—independent of the area of research—about successful and sustainable practices. Success in this context is not simply running a data repository, but seeing a repository or associated data services taken up by a research community and enabling research that would otherwise not be feasible. Sustainability of such infrastructure is a huge challenge. We now see mandates for open access to the data produced by government-funded research projects, but little or no commitment to a data management infrastructure that would support data preservation, curation, and access. Through RDA we can learn from each other about approaches to long-term data management that are financially sound, yet maximize availability and re-use of data.

RDA brings together experts in data from diverse research areas. Through RDA Working Groups these experts collaborate on solving problems of common interest. RDA encourages organizations to adopt its Recommendations, thereby providing efficiencies and cost savings to organizations that might otherwise develop unnecessarily duplicative or less effective technologies for data sharing.

RDA also unites communities on an international basis that might otherwise not be in discussion about common data sharing challenges. RDA Interest Groups provide the forum for domain-based communication and collaboration (for example, Agriculture, Biodiversity, History and Ethnography, Health, Marine Data, Metabolomics, Materials Science, Photon/Neutron Science, Structural Biology, and Urban Life). These communities use RDA as a platform for launching global initiatives in data discovery and access that might not otherwise occur.

RDA is now of sufficient size and visibility that it also serves as an international platform for building awareness of data management challenges and benefits, providing information that can be used effectively to promote and influence national and international policies and funding for data. Importantly, RDA is not a place to promote specific technologies but rather provides a neutral space to gather and disseminate internationally vetted information.

Regional RDAs

RDA members in various regions of the world (e.g. RDA/US, RDA/Europe, RDA/Australia, RDA/Japan) have formed "local" communities that seek to maximize the benefit of RDA in their region. These regional RDAs play an important role in RDA as they provide a "push" by bringing regional efforts and issues into RDA, and a "pull" by instantiating RDA efforts into regional projects, initiatives, organizations, and communities. Organizationally, RDA regions provide a venue for in-kind "in-region" financial and organizational support as many national funding agencies and non-profits cannot send resources out of country.

Benefits Provided by RDA/US

RDA/US is composed of all U.S. members of RDA. Currently there are more than 1100 RDA/US members from almost every U.S. state and all sectors. Across a broad range of interests and professions, RDA/US members see RDA as an asset in creating an expanded global network to help vet and improve their work. U.S. researchers use RDA to accelerate the development and use of infrastructure needed to drive discovery as well as a vehicle for engaging with a broad, diverse, and international set of domains and stakeholders.

RDA engagement is valuable enough that RDA/US members are highly active in the leadership of the organization, serving on RDA's Technical Advisory Board, Organizational Advisory Board, Council, and as chairs and co-chairs of many RDA Working Groups and Interest Groups. In addition, RDA/US serves as a vehicle for U.S. regional support for RDA, providing core funding for U.S. hosted RDA Plenaries, participant support costs for RDA/US members to attend foreign Plenaries, in-kind staff support for the Global RDA Secretariat, partial funding for RDA's Secretary General, and funding for a small staff to support RDA/US.

RDA/US is needed as a vehicle to facilitate U.S. participation in the Global RDA, as a vehicle for deploying RDA-developed infrastructure in U.S. projects and organizations, and as a focus in the U.S. for data-driven efforts. Current funding for the RDA/US organization will end in 2018. It is now urgent to consider what RDA/US functions are essential to continue and how to sustain them.

Note that, financially, RDA/US and RDA are co-dependent. If RDA has a strong financial basis, it can support its Secretary General, Secretariat, Plenaries, etc. This means that RDA/US and other RDA regions would not need to provide support for these things and could be more lightweight.

In the absence of a strong financial basis for RDA, RDA/US and other regional RDAs will need a stronger financial basis so they can contribute funding or in-kind support as needed to help support RDA. RDA's leadership Council is focusing increasing effort on sustainability and financial support for RDA, however it will likely be some time before RDA regions do not need to provide substantial support for the international organization. Therefore, we focus on the development of a financially strong RDA/US 2.0 organization (left figure) in this White Paper.

Strong Regional RDA's Lightweight Global RDA

Current(left): Financially strong regional RDAs (and in particular, RDA/US) help support a lightweight Global RDA

Alternative (right): Lightweight regional RDAs (including RDA/US) supported by a financially strong Global RDA

Lightweight Regional RDAs Strong Global RDA

2. SUSTAINING RDA/US

The goal of this White Paper is to provide initial thoughts on what a financially stable and strong RDA/US – **RDA/US 2.0** -- might look like and how it can be evolved, funded, and sustained.

A useful model for RDA/US 2.0 is a model used successfully in professional societies like ACM and IEEE and also in community organizations such as ESIP. These organizations have stable staffing levels, **elected community leadership**, and **sustainable business models**. Leadership of the organization becomes a partnership between elected community members and executive leadership of the professional staff. We explore this as a possible model below.

Core functions needed in RDA/US 2.0 for this scenario should include

- Leadership & Coordination: Management of program resources, assessment of priorities, commitment to the effort, organization and oversight of distributed activities, reports to funders.
- Communication & Community Engagement: Information dissemination (website), newsletters, participation in meetings, workshops, and conferences, supporting adopters of RDA outcomes/recommendations.
- Advocacy: Sharing the rationale for RDA with funders and policy makers, fostering and supporting strategic expansion of the RDA/US community.
- **Hosting of RDA U.S. Plenaries (bi-annual):** logistics management, contracting for meeting planning services, core support as needed.
- **Support for RDA:** Appropriate in-region in-kind support for the international RDA organization on par with the level of support of other regions.

Possible staffing for RDA/US 2.0 that supports this functionality is below. Depending on the number of people, the level of support, and the addition of other key budget drivers (e.g. participant costs for U.S. RDA leaders to attend foreign plenaries, partial, support for the RDA Secretary General, support for RDA/US pilots), we expect most budget scenarios to come in between \$500K and \$1M annually. Note that currently, support for the Global RDA Secretary General is aggregated from RDA regional support including support from RDA/US.

CORE RDA/US STAFF TEAM

- RDA/US Executive Director full-time staff, responsible for leadership, coordination and administrative and business operations of RDA/US
- RDA/US Director of Communications and Community Development full-time staff, responsible for development, cohesiveness, outreach, and expansion of RDA/US community

- U.S. RDA Secretariat Member full-time staff assigned to RDA Secretariat from
 U.S. in support of RDA global activities such as plenary meeting planning, Working
 Group and Interest Group coordination, RDA communications, and RDA
 governance activities
- **RDA/US Business Manager** staff support for budgeting, travel, participant support, all things financial
- RDA/US Administrative Coordinator administrative support for RDA/US

CORE RDA/US COMMUNITY TEAM

- RDA/US Chair advocate for and represent RDA/US within RDA and U.S. community, elected by RDA/US community, unpaid
- Other elected community leadership?
- RDA/US Steering Committee / Board of Directors / ?? (unpaid) leadership group
 whose responsibilities include oversight of RDA/US Executive Director, fiscal health
 of RDA/US organization, etc.

Getting to a Plan

In order to develop a useful straw model for RDA/US 2.0 and ultimately a plan for implementation and funding, it is useful to come to agreement on the fundamentals. Some questions that we need to address are below.

- What kind of organization is RDA/US?
 - Independent 501(c)(3) established as a corporation or limited liability company?
 Organization formally affiliated with another organization, institution or agency?
 - How do various roles coordinate and how are responsibilities distributed (e.g. RDA/US Chair and leadership, RDA/US grant PIs, RDA/US Executive Director, RDA/US Steering Committee / Board / ??, etc.)
- How does RDA/US support U.S. RDA-related efforts?
 - What kind of support and services should RDA/US provide to promote U.S. efforts? Should there be a "tax" on RDA/US grants to help support the RDA/US professional staff / organizational office? If so, how much is reasonable and how to enforce?
 - What kind of support and services should RDA/US provide to RDA?
 - How does RDA/US decide what activities and initiatives to do / participate in?
- How much funding is needed for RDA/US?
 - What is necessary and what is optional?
 - What are the options for assigning multiple functions to people?
 - What is the annual cost for various scenarios?

What are potential sustainable business models for RDA/US?

- What do we need to do to secure funding post-2018?
- What can we appropriately leverage as in-kind support?
- How can we leverage / combine various funding vehicles to sustainably support RDA/US in a way that does not conflict with funding for RDA?

Note that in the approach herein to RDA/US sustainability, the initial NSF grant is seen as start-up funding to a university potentially followed by the creation of an independent non-profit organization created as a legal and financial home for RDA/US. Oversight and overall strategic direction would be provided by a Board of Directors, Steering Committee, or other responsible group (depending on the model) including a rotating Chair, all of whom would be drawn from the RDA/US membership for a specified term.

A small paid permanent professional staff would be responsible for administrative tasks, managing U.S.-based Plenaries, outreach activities, fundraising, and supporting Global RDA as appropriate. One model for those positions is given above. These positions would be staffed out to employees of the RDA/US organization, as determined by the Board / Steering Committee. Legal and financial counsel would be retained as needed.

This White Paper provides a place to start. To ultimately determine and begin to develop a viable organizational model for RDA/US 2.0, we seek input from our expert/experienced community on a specific set of questions:

- 1. Is this the right model, yes or no? If not, please briefly propose a better alternative.
- 2. Are the permanent professional staff positions outlined above (3 full-time plus some support staff, so somewhere around 4 FTE) sufficient and are they the correct positions?
- 3. Is the \$500K 1M estimated budget range in the ballpark? (Note that the larger part of the range includes funding for Plenary hosting, Participant Support, possibly pilots, etc.).
- 4. Which of the following income sources seem feasible? (Note that we are assuming a mix will be required and we are assuming that we are not in competition with Global RDA, i.e., more expensive Plenaries or higher organizational membership fees would go to Global RDA. In all cases funds to Global RDA could be shared out to the locals, but this seems unlikely at the moment.)
- 4a. An ongoing series of overlapping grants to RDA/US. Which government agencies and/or foundations?
- 4b. A tax on proposals that require an RDA endorsement, either directly to RDA/US or as a shared arrangement with Global RDA.
 - 4c. Corporate support, in exchange for prominent thanks.

4d. What else?

5. Finally, are we correct in assuming that Global RDA will be supported by the regional RDAs as opposed to the reverse?

