



Federation of Earth Science Information Partners Partnership Application

Please complete all sections to the fullest extent possible and forward completed application to: Carol Meyer, carol.meyer@earthsciencefoundation.org. If you have any questions, please contact her at 877.870.3747.

I. CONTACT INFORMATION

A. Primary Contact/Principal Investigator

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B. Designated Assembly Representative (could be same as above)

Name: Franciel Azpurua Linares
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C. Other Contacts

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II. ABOUT YOUR ORGANIZATION

A. ORGANIZATION/DIVISION/PROJECT NAME:

Information International Associates, Inc (IIa)

B. OVERVIEW OF YOUR PRIMARY ACTIVITIES in regards to the Earth Sciences Community (200 words or less)

We provide scientific information management and technology tools to the Earth Science community. Our interest is to work with Earth scientists and assist with solving the data management challenges of the community. We work closely with USGS, NPS, F&WS to provide content management, web analysis, information visualization and digital data management tools, protocols and best practices for the biodiversity community. We provide the same services to the Environmental Science Division of the Oak Ridge National Laboratory. We are active in the digital data management international community. The primary contact and the additional contact person for IIa are both active members of the ICSTI/ICSU (International Council for Science and Technology/International Council for Science) CODATA (Committee on Data for Science and Technology) Digital Data Citation Working group (as liaison and co-chair respectively). Our Sr. Vice President (Dr. John Rumble) is a AAAS fellow and active member of CODATA. We are the secretariat of CENDI (and interagency working group of senior scientific and technical information (STI) managers from 14 US Federal agencies) and provide guidance, best practices and coordination for digital data management (including digital data curation and metadata standards development, mapping and implementation) as well as development/implementation of new technologies and tools.

C. Please list and briefly describe the primary product(s) or service(s) that your organization provides (will provide) to the Earth Sciences community.

- Open source technology tools for data visualization and analysis. Such as mapping tools using tools like Open Map, Google maps and Google Earth.
- Creation of information tools that provide users with a concise and accurate “story” from authoritative sources- such as mashups. We have worked with USGS and state wildlife agencies to develop such tools in numerous occasions.
- Web-enabled databases based on open source database management systems as well as proprietary software.
- Content management portals based on open source tools such as Drupal, Plone, Wordpress and scientific content management expertise.
- Social media custom made tools as well as strategy and best practices for implementation of such technologies. This includes guidance from crowdsourcing, mashup creation, social networking profiles, implementation of blogs and microblogs, and so on.
- Assistance with strategies for sustainability of partnerships and working groups
- Best practices and expertise for developing, mapping and implementing current metadata standards (such as Darwin core, to name one) and ensure interoperability with current technologies (such as Specify, the Tapir protocol) and international data clearinghouse efforts (such as GBIF, which was created with instrumental participation from IIa).

D. Please give a main website address for the proposed Partnership: Our new site is under construction but check continuously for the new site

Web Address: www.iiaweb.com

III. HOW YOUR ORGANIZATION WILL BENEFIT FROM/CONTRIBUTE TO THE EARTH SCIENCE INFORMATION PARTNERS (ESIP) FEDERATION

- A. Describe **current or anticipated users of your products and services** and **how you think the Federation can help you better serve this population.** (200 words or less)

Multiple members of the Federation are already users of our products. Most of the members of ESIP are potential users of our services or products because we are all focusing on solving multiple challenges with the management of scientific digital information resources.

The Federation is a combination of people from the community of practice and the community of interest. These two groups are very active discussing what the challenges and the solutions are. By listening to this elite group we can understand what the wider range of earth scientists need so that we can be better informed in terms of what we can do to assist with their endeavors.

- B. Describe any **Earth science technologies that you have developed and are willing to bring to the Federation's efforts to provide best-practices.** (200 words or less)

Scientific data mashups: we created an application that uses and combines data, presentation and functionality from sources like ITIS, state wildlife action plans (SWAPs from Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee), GBIF, NatureServe, NBII metadata clearinghouse and Google images. This required the integration, use of open APIs and data sources to produce these enriched results.

New media implementation – best practices for crowdsourcing of data: We have created best practices for the implementation of crowdsourced data (including citizen science data) focused on government agencies.

New media implementation – outreach strategies and best practices for implementing social network for scientific outreach and collaboration: We have experience creating outreach strategies based on our best practices for implementing any of the new media tools

Creation of apps for collection of data: for smart phones such as the iPhone and the Android.

Ila tool - Social media network for Scientists: With funds from the DOE EPSCOR (Experimental program to stimulate competitive research) we are finishing the creation of a social networking tool in partnership with the Oak Ridge National Laboratory.

Scientific and Technical Information Repositories – designed for earth science needs: We have designed, developed and implemented scientific and technical information & data repository systems for the National Technical Information Service (NTIS) and the National Oceanic and Atmospheric Administration (NOAA)

The primary contact person for Ila has been the principal investigator in multiple DOE and DOD SBIR (Small Business Innovation Research) and STTR (Small Business Technology Transfer) grants. These grants have produced methodologies and tools that can be used by several scientific fields.

We have experience working with open linked data and semantic technologies within the EPA context. This experience will come as very useful when discussing and contributing to the ESIP efforts.

- C. Describe **how your proposed membership would contribute to** the efforts and the mission of one or more **standing committees, working groups and/or clusters.** See Page 3 for descriptions of the different activities of the various standing committees, working groups, and clusters. (200 words or less)

We could contribute the most to the following committees: information technology and interoperability; and products and services. We have experience working with self-managed, self-motivated and geographically dispersed scientific communities focused on issues such as data management to ensure data archival, preservation, and access. We are also experienced working with. The work on digital data citation that we have been executing for the past few years with the ICSTI CODATA group can assist with the Federation's goal to ensure that credit and citations are provided for all data sources. We have decades of experience working with scientific groups designing and developing tools and protocols to facilitate interoperability and

leveraging of technical resources while encouraging the implementation/use of standards and protocols. As I have explained above our experience in the digital data management world, particularly in the data preservation aspect could prove to be very useful to the Federation. Our expertise as consumer and producer of web services as tool for science information dissemination is as well as our knowledge in the semantic web field within the context of scientific data could provide the ESIP community with a balanced view of the challenges and potential solutions we can all bring about together.

D. Describe your **own use of Earth science information and data** and how you would see **this use enhanced by your partnership in the Federation**. (200 words or less)

We create portals containing sound Earth science information so that scientist, decision makers and other information consumers have access to this knowledge. We not only create content, we also re-purpose and re-use this information so that groups can leverage resources better and not reinvent the wheel. We QA/QC data and provide access to it but also re-use it and re-purpose it to provide different views and context. For example, we integrate different data to provide a complete source of information about a certain topic or to provide different visualization aspects of certain data set or sets. Our partnership in the Federation will provide us with access to data and information consumers and providers that can illustrate better how useful these tools that we create or use are. Our desire to be an active member of this community is also to ensure that we are completely align (as a user and providers of Earth science information, data and tools) with the guidelines and best practices implemented by the group, to contribute what we learned from similar communities at and international level and to assist with solving the current information management issues.

IV. YOUR CHOICE OF MEMBERSHIP TYPE. PLEASE PICK ONE.

ESIP-I (primarily a data center/archive)

ESIP-II (primarily a research center)

ESIP-III (primarily applications and education)

ESIP-IV (primarily a sponsoring member)

V. Any other comments about your proposed membership and its relation to the Federation that you wish to provide.

We are looking forward to hear your decision in terms of our partnership with the ESIP Federation. We are a small company that employs information and environmental scientists as well as information technologists that have chosen a path towards solving scientific information management problems hoping to make a difference. We hope you consider –and approve- our membership.

Thank you for your application for partnership in the ESIP Federation.

List of Federation Committees and Clusters

Administrative Committees

Executive Committee: Comprised of all standing and administrative committee chairs, ESIP Type Representatives, the President and Vice President of the Federation. Oversight body for most day-to-day activities of the Federation, acts on behalf of the Assembly between meetings.

Constitution and Bylaws: Provides counsel on matters related to the constitution and bylaws and other related issues (e.g. amendments to government documents)

Finance and Appropriations: Oversees financial resources of the Federation, including the annual budgeting process.

Partnership: Reviews and processes all applications for membership before making applications available for review by members of the Federation. Deals with other membership-related issues.

Standing Committees:

Commercial Development: Promotes a forum wherein commercial development of Earth science information can be fostered. (inactive)

Community Engagement: Provides a forum for the Federation to promote partner products and to engage new users for data products and services. (inactive)

Education: Provides a forum to make accessible to educators and learners at all levels in both formal and informal educational contexts the Earth science data, information, tools, and curricula available within the ESIP Federation.

Information Technology and Interoperability: Provides a forum for discussing information technology and interoperability issues of the Earth science community and serves as a central point for activities in this realm.

Products and Services: Provides a forum for defining best practices and defining requirements for earth science products and services. Currently is involved in developing an inventory of partner products and services.

Clusters (presently active, April 2009):

- Web Services
- Semantic Web
- Data Preservation and Stewardship
- Decisions
- Air Quality
- Federated Search
- Water