



# RDA BROKERING IG MEETING REPORT

Brief report for RDA Brokering Interest Group (IG) Meeting held from 09:30am to 11:00am on Friday September 25 2015 at RDA P6 Meeting in Paris, France.



*Group Logo*

Venue: Conservatoire national des arts et métiers (CNAM), 292 Rue Saint-Martin, 75003 Paris

Written by

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Brokering IG webpage: <https://rd-alliance.org/groups/brokering-ig.html>

## Pre – session discussion

Prior to the scheduled meeting, there was a pre-discussion by organizers where Jay Pearlman, Françoise Pearlman, Stefano Nativi, Wim Hugo, and Godwin Yeboah were present.

Wim Hugo pointed out the need to work with Michael to come up with some pros and cons of working with approaches and capabilities in Brokering and Brokering Governance (BG). Some of his other expressed thoughts were that one must always be in a position to say that the world will never be “perfect” so one might want to use the right tools for the right job and wait for “perfection” later on.

Also two potential use cases to be based on EUDAT and CLARIN were discussed. Especially in the case of BG, there was an intention to engage CLARIN. The readiness of CLARIN for collaboration as well as their resource constraints were noted by Wim and Stefano.

Wim Hugo, from South Africa, said they have use cases locally and suggested that there might be valuable contributions from South Africa arguing that they were engaging locally (i.e. engaging with all kinds of data providers comprising individuals to big institutions that are (going to or) giving them thousands of records or paying them for services); especially from the BG use cases. He went further, after a short intervention from Jay asking what they are doing specifically, to suggest that the group might need some kind of governance framework that will allow the group to automatically contract whoever is giving the Brokering group data as the group is not going to have the resources to sit and sign contracts for each individual depositors. Stefano, although did not think of it earlier, seconded the idea of automatic contracting saying it was a good point.

There was also brief discussions on the presentation for the session touching on *Registry Framework* and *Metadata*. Jay talked about the need for future discussion online/onphone. Wim Hugo talked about the possibility of using a good document (and with some modification) from San Diego for the Registry Framework as well as suggested the need to look for interest(s) other than aforementioned ones. He also noted the need to tap into Jay Pearlman’s experience going forward to ensure that the group realises a working group. He further noted that although the needs are clear for the registry for brokers and mediators, he was going to ask questions in his presentation as the group might have to further define descriptors (some sort of metadata in his view covering what they do, how they work as well as the sort of software platforms necessary, what their capabilities are). Stefano noted that he has never seen something similar like how Wim is describing. There was also a short discussion on the use of crosswords for determining many components in GEOSS registry.

Jay Pearlman, discussing earlier discussion from the Brokering Governance WG session with Godwin Yeboah, pointed out some highlights comprising: 1) a proposal for research topic (s); 2) Question on the requirements of Brokering in terms of the areas/disciplines of need; 3) Question on grand challenges covering water, food, climate etc. These are expanded in the section in this document where Jay covered reporting of BG WG activities. Additionally, despite the fact that people seem to argue that to meet the grand challenges, one might need inter/multi-disciplinary approaches, it appears no one has been able to demonstrate that yet. Here, the bottom line was that these ideas were just about 2-3 people’s opinion so the intentions were about going into literature and writing a survey out to the community to get responses from research professionals and also publish the output as no one has done that before.

The agenda for the meeting is in Appendix A with additional information covering names and email addresses for session chairs, uniform resource locators as well as contextual information for the Brokering IG.

## Introduction

Stefano kicked off the meeting at 9.30am by going through the agenda as planned but first thanking everyone in the room for their presence and interest in the Brokering Interest Group (IG). You can see a photo in Appendix C. He talked about looking at outputs from other groups in RDA to find out the potential of Brokering IG working with those of interest(s). This was partly in explaining the agenda which is in Appendix A. He talked briefly about the Brokering Governance session which was held prior to the meeting pointing out that Jay Pearlman would report on that session in the course of the meeting.

In attendance were approximately 22 participants (see Appendix B and also Appendix C photos C.13 and C.14). The room code for the meeting was “17 Access: 21.2.32”.

## RDA outcomes and the possible contributions/synergy with the Brokering IG -and discussion (SJS Khalsa and Stefano, all);

Stefano then moved ahead to talk about the possible outcomes for the group juxtaposing it with other RDA outcomes.

**The first outcome** he talked about was from the *Data Foundation and Terminology (DFT) WG and his comment during the discussion with DFT WG*. The DFT WG had defined a number of simple definitions for digital data in a registered domain based on an agreed conceptualisation. He highlighted his comment during that discussion suggesting that the Brokering IG could try “To support such a model (and concepts) recommending its implementation as a part or a view of the Common model characterizing Brokering framework” – see Appendix C photo C.2.

Jay asked, what if the model is not complete? Another participant commented that characterization of Digital Object in the conceptual framework might not be relevant. Stefano said the focus should not be about discussing the model from DFT WG but rather whether we are to use it or not. Another participant pointed out that there could also be additional layers of complexity to be discussed as it will not go away somewhat re-emphasising Jay Pearlman’s question. The consensus was mainly to support the model but introducing different elements by going into these boxes (see photo C.2). Jay asked if Stefano was suggesting some volunteers but Stefano clarified that actually comments from individuals are enough for the time being. Stefano suggested that what we can do is to have a document explaining what could be our contribution to make sure there is clarity.

**The second outcome** he talked about was from the *Data Type Registries (DTR) WG and his comment during the discussion with the DTR WG*. The DTR WG was offering developers and researchers the ability to add their type definitions in an open registry and, where useful, add references to tools that can operate on them (see Appendix C photo C.3.). The suggestion for the Brokering IG was to “To link the DTRs to brokering framework by accessing them to get extra semantics and launch tools automatically”.

Stefano then opened the floor for suggestions and comments. A participant said that, on a practical level, the group should extend the services indicating that it was a good idea for the group. Jay asked if there were identified linkages to Social Sciences etc. There was no comment on this. Stefano pointed out that Brokering registry should be open and should not be linked to any particular registry. The consensus was that the group was interested in Stefano’s proposal.

**The third outcome** he talked about was from the *PID Information Types WG and his comment during the discussion with the WG*. For the *PID Information Types WG* outcomes, see Appendix C photo

C.4.). Stefano's suggestion to the Brokering IG was "To work with the PID Team to test the Brokering framework as a "Big Data Process".

Another participant, expressed his scepticism about the practicality of the approach. Stefano shared that point but argued that "why don't we experiment together?" as something has to be done by all means and working this way was a good way of "getting started". There were comments here and there but eventually the consensus was to somewhat reached. Stefano commented that "we see how far we go with this suggestion".

**The fourth outcome** he talked about was from the *Practical Policy WG and his comment during the discussion with the WG*. For the *Practical Policy WG* outcomes, see Appendix C photo C.5.). Stefano's suggestion to the Brokering IG was "To consider the 11 policy areas in the Brokering Governance WG activity – noticeably, the "brokering agreement" definition.

Stefano then opened the floor for comments and suggestions. A Participant suggested that the group considers Brokering activity into one or more of the policy areas. Eventually, the consensus was to consider the 11 areas and also engagement in order to advocate Brokering. Jay suggested that we invite one of the *Practical Policy WG* members to join the Brokering IG.

**The fifth outcome** he talked about was from the *Scalable Dynamic Data Citation WG and his comment during the discussion with the WG*. For the *Scalable Dynamic Data Citation WG* outcomes, see Appendix C photo C.6.). Stefano's suggestion to the Brokering IG was (1) "To support time-stamped query (and elements) recommending its implementation by Brokering framework" and (2) "To test time-stamped query in a brokering framework".

A participant commented that Brokering is also a use case to add additional information but this was counter argued by another participant that the theory of Brokering Framework capturing almost everything could be problematic. Stefano commented that there was the need to have at least one or two systems under the Brokering Framework.

**The sixth outcome** he talked about was from the *Data Description Registry Interoperability WG and his comment during the discussion with the Data Description Registry Interoperability WG*. For the *Data Description Registry Interoperability WG* outcomes, see Appendix C photo C.7.). Stefano's suggestion to the Brokering IG was that "Brokering Framework can implement the "Metadata Harmonization", the "API Consumer Layer" and relax common artifacts to be implemented by the Data Providers Layer".

There was not comments here.

**The seventh outcome** he talked about was from the *Metadata Standards Director WG and his comment during the discussion with the Metadata Standards Director WG*. For the *Metadata Standards Director WG* outcomes, see Appendix C photo C.8.). Stefano's suggestion to the Brokering IG was that the "Brokering Framework can implement the necessary mediation functionality to harmonize the DCC entries".

Stefano opened floor for comments and there was immediate consensus on Stefano's suggestion. Keith Jeffery was considered an initial contact point. A participant cautioned that the group needs to consider contacting Metadata WG again as their approach might be confusing. So Stefano quizzed "What was their functional prototype?". A participant suggested links to Data Types as DCC seem to cover only disciplines. A participant commented that there was a complex end point to this e.g. biosharing.org. For practicality, there was the need to restrict to what can be done within say the next two years.

**The eighth outcome** he talked about was from the *Wheat Data Interoperability WG (WDDIWG) and his comment during the discussion with the Wheat Data Interoperability WG*. For the *Wheat Data Interoperability WG* outcomes, see Appendix C photo C.9.). Stefano's suggestion to the Brokering IG was "To work with WDDIWG for demonstrating of how it is possible to achieve (syntactic and semantic) interoperability without imposing common standards, encouraging them to test the interoperability agreement guidelines (proposed by the Governance WG) specific to frequently used wheat data sources".

No was no comments here as Stefano did not give an opportunity for comments as time was catching up. Stefano ended his presentation and there was an applause.

## Brokering IG/WG in the RDA activities matrix

Wim Hugo, from South Africa, took over from Stefano at 10.39am talking about ICSU-WDS/SAEON (see Appendix C photo C.10). He talked briefly about an idea for forming a working group for the Brokering IG to deal with the idea that the group needed some form of a framework or registry which Brokering components could be described. He supported the idea by saying that the existing working group (i.e. Brokering Governance WG) deals with governance aspects and business models in providing Brokering services. This meant there was a gap as to which Brokers are available and what they could be used for.

Wim suggested the following names for the proposed working group: either "Brokering Framework Working Group" or "Brokering and Mediation Registry Working Group". The requirement for the proposed working group was twofold: (1) to define a collection of mediation components that can interoperate, and (2), from RDA perspective, to test these concepts by having participants' use cases that can test the environment to see whether the environment is working.

He pointed out that protocol inter-mediation is becoming quite important. He talked about a work plan initially discussed in San Diego in the past (three months ago from the meeting date). He then touched on deliverables spanning from 3 months to 18 months. Main participants were Michael D., Wim Hugo and Stefano Nativi and Jay Pearlman. He expressed interest in other interested people especially with backgrounds in Health, Life Sciences, and Humanities (including social sciences).

He also touched on some practical questions he thought about in the interim which he says took him about two months for each of the questions. The questions are:

- How do we describe a broker or mediator or a mediation process?
- How do we match the objects and brokers in an open environment?
- How do we know which metrics and brokers to use?
- Are there registries support services and if so what are they?

He then talked about possible deliverable but cautioned that those were changeable. Stefano suggested that it was useful to provide clear framework.

Wim ended talk at 10.52am and Jay took over for the next item on the agenda.

## Report on the Governance WG activities

Jay gave a report on Broker Governance WG meeting to the Broker Interest Group (see Appendix C photo C.11). He talked about Broker services for the research communities where he touched on brokering services cloud for cross-disciplinary and multidisciplinary applications such as

meteorology/biodiversity/drought/community N infrastructures. He went on to talk about alternative business models such as Software as a Service (SAS) and government funding. His next slide raised the question “What contributes to sustainability?” where he covered funding/efforts, market development, community engagement (i.e. outreach/advocacy), support/contributions, software engineering, and product management. He also talked about revenue models and their attributes (see Appendix C phot c.12). He finally touched on the next steps where he provided the following:

- Formulating and understanding hybrid models
- Alternatives to sustainability
- Mapping of business models to different target customer bases
- Roadmap including possible hybrid models – experience that this is what works and provides flexibility - bottoms up in research customer base unlike the users of excel or word

He then thanked for attention and ended presentation at 10:58.

## Wrap-up (Jay and Stefano)

Stefano wrapped up by saying that the group is clearly in a good position to establish other relations with other groups in RDA. He thanked participants and the meeting came to a close at 11.00am as planned.

## Appendices

### Appendix A: Agenda with other information

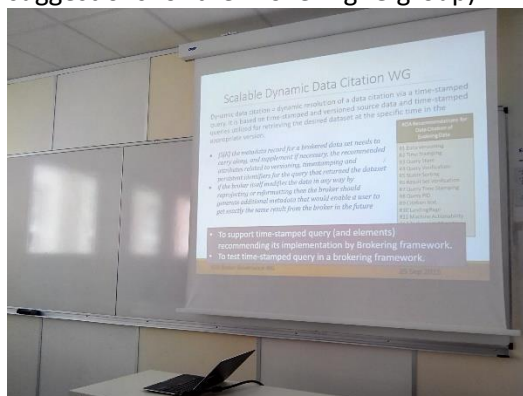
IG Name	IG Brokering
Session chair(s)	Stefano Nativi (stefano.nativi@cnr.it), Italian National research Council of Italy Jay Pearlman (jay.pearlman@jandfent.com), J&F Enterprise
Context	Brokers, in general, have existed for many years and have found application in diverse domains and industries (e.g. financial systems, business-to-consumer systems, medicine, and automotive industry). However, the emergence of brokers in science is relatively new. Brokering is now being piloted with great promise in e-infrastructure and science communities in the U.S., Europe, and elsewhere.  In science, Brokering architectures introduce a new (middleware service) framework, which does not belong either to the Data Producer’s or to the User’s Communities. Its governance and operation emerges as a clear challenge.
Links	<a href="https://rd-alliance.org/internal-groups/brokering-ig.html">https://rd-alliance.org/internal-groups/brokering-ig.html</a> <a href="http://www.earthobservations.org/geoss.shtml">http://www.earthobservations.org/geoss.shtml</a> <a href="http://earthcube.org/">http://earthcube.org/</a> <a href="http://inspire.ec.europa.eu/">http://inspire.ec.europa.eu/</a>
Agenda	<ul style="list-style-type: none"> <li>• 09:30 - 09:40: Introduction (Stefano and Jay);</li> <li>• 09:40 - 10:20: RDA outcomes and the possible contributions/synergy with the Brokering IG -and discussion (SJS Khalsa and Stefano, all);</li> <li>• 10:20 - 10:40: Brokering IG/WG in the RDA activities matrix;</li> <li>• 10:40 - 10:50: Report on the Governance WG activities (Jay)</li> <li>• 10:50 - 11:00: Wrap-up (Jay and Stefano)</li> </ul>



(Photo C.3: Stefano Nativi talking through the Data Type Registries WG outcomes and his suggestions for the Brokering IG group)



(Photo C.4: Stefano Nativi talking through the PID Information Type WG outcomes and his suggestions for the Brokering IG group)



(Photo C.5: Stefano Nativi talking through the Practical Policy WG outcomes and his suggestions for the Brokering IG group)

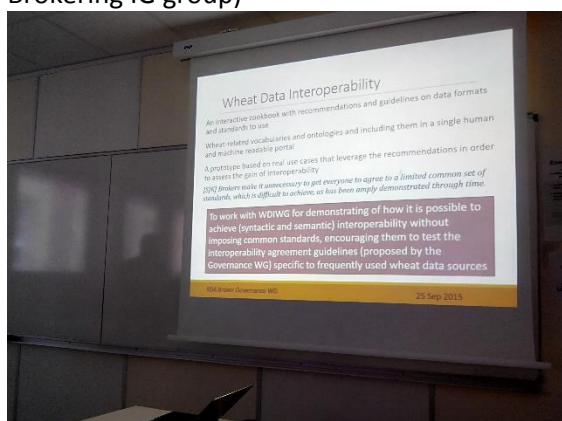


(Photo C.6: Stefano Nativi talking through the Scalable Dynamic Data Citation WG outcomes and his suggestions for the Brokering IG group)



(Photo C.7: Stefano Nativi talking through the Data Description Registry Interoperability WG outcomes and his suggestions for the Brokering IG group)

(Photo C.8: Stefano Nativi talking through the Metadata Standards Director WG outcomes and his suggestions for the Brokering IG group)



(Photo C.9: Stefano Nativi talking through the Wheat Data Interoperability WG outcomes and his suggestions for the Brokering IG group)

(Photo C.10: Wim Hugo about to start his presentation)





(Photo C.11: Jay Pearlman about to start his presentation on reporting Broker Governance WG meeting outcome to the Broker Interest Group)

Revenue Models	Government Funding		Software as a Service (SaaS)	Info/Ad Sales	Corporate/Service Sales	New Consortium	Legend
	Assistance Awards	Guardianship					
Funding/Efforts	●	●	●	●	●	●	● Essential
Market Development	●	●	●	●	●	●	● Important
Community Engagement (outreach/advocacy)	●	●	●	●	●	●	● Desirable
Support/Contributions	●	●	●	●	○	●	○ Not Applicable
Software Engineering	●	●	●	●	●	●	
Product Management	●	●	●	●	●	●	

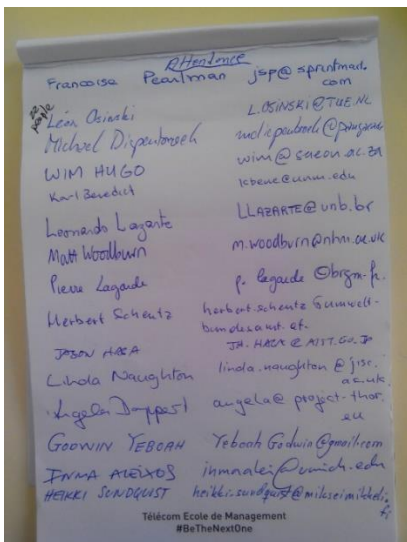
(Photo C.12: Jay Pearlman's slide on revenue models and their attributes.)



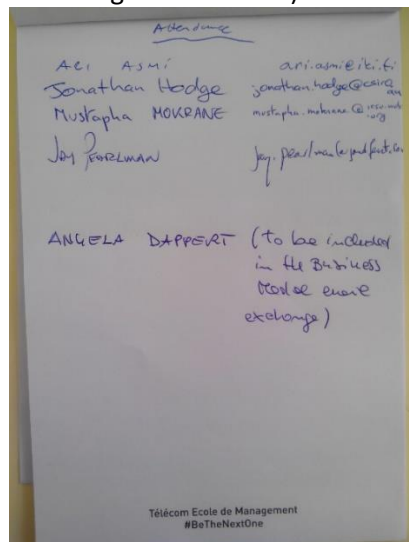
(Photo C.13: Photograph of participants in the room around 10:58am which is about 2 minutes to closing time of 11am)



(Photo C.14: Photograph of participants in the room around 10:58am which is about 2 minutes to closing time of 11am)



(Photo C.15: List of participants who wrote their names and contacts during the event.)



(Photo C.16: List of participants who wrote their names and contacts during the event.)

Appendix D: Any other relevant information

None.