# W3C LBD Community Group Minutes - Call 23/03/2021

### Attendees:

- Katja Breitenfelder (Fraunhofer IBP, TU Munich)
- Mathias Bonduel (KU Leuven)
- Karl Hammar (Jönköping University, Sweden)
- María Poveda-Villalón (Universidad Politécnica de Madrid)
- Joel Bender (Cornell University)
- Mads Holten Rasmussen (NIRAS, Denmark)
- Serge Chávez Feria (UPM)
- Jeroen Werbrouck (Ghent University)
- Edlira Vakaj (Birmingham City University, UK)
- Philipp Hagedorn (RU Bochum, Germany)
- Vladimir Alexiev (Ontotext)
- Francisco Regateiro (Instituto Superior Técnico, ULisbon)
- Rui de Klerk (DCG, Faculdade de Arquitectura, ULisbon)
- Seppo Törmä (VisuaLynk, Finland)
- Madhumitha Senthilvel (Design Computation, RWTH Aachen University)
- Jyrki Oraskari (Design Computation, RWTH Aachen University)
- Nicolas Pauen (RWTH Aachen)
- Ana Wagner (Individual affiliated to PROSTEP)
- Hervé Pruvost
- Serge Justinian Raynauld

### **Presentation slides**

 https://docs.google.com/presentation/d/1Ae5qcc7zc-g6YjQcgloPi6MaSLyLJouyjdhgUT\_ JjaY/edit#slide=id.gca26a9dcee\_0\_0

#### Date and time

 23/03/2021, Tuesday, 16:00-17:30@UTC/ 17:00-18:30@CET/ 08:00-09:30@PST/ 00:00-01:30@CST

### Agenda

- 1. Introduction
- 2. New participants
- 3. Intro: Future formats of CG calls
- 4. Elevator Pitch by Vladimir Alexiev (5 min)
- 5. Results of voting

- Initiation of a 'Working Group"
- Future formats of CG calls
- 6. Intro to new format: 'Elevator Pitches'
- 7. Intro to new format: 'Focus Group Workshops'
- 8. **Best Practices for Publishing Ontologies** by Mathias Bonduel
- 9. Open action items (Github issues) by Mathias Bonduel
- 10. Further discussion points
  - Additional 'Best Practices' needed?
  - Other communication tools needed?
  - Future life of 'W3C Wiki'?
  - Further topics

### **Moderators**

- 1. Katja Breitenfelder
- 2. Mathias Bonduel

### **Minutes**

- 1. Introduction
  - a. The provisional agenda experienced little changes, starting with an "Elevator Pitch" by Vladimir Alexiev. General information on the new formats for LBD CG calls will be given after the pitch.
- 2. New participants
  - Vladimir Alexiev: already attended 2-3 meetings in the past, works for Ontotext, looking into building and architecture combined with knowledge graphs, looking for Horizon Europe (former H2020) programs
- 3. Intro: Future formats of CG calls
  - a. Starting "regular calls" with short elevator pitch, of 5min 2-3 slides: industry use case or research project
  - b. Open for new and existing participants
- **4. Elevator Pitch** by Vladimir Alexiev (5 min)
  - a. Overview of the EU research proposal:
     <a href="https://docs.google.com/document/d/1w-44yiAL7brbQscSVCqux9hC8NDdhcU6z">https://docs.google.com/document/d/1w-44yiAL7brbQscSVCqux9hC8NDdhcU6z</a>
     zyW2kbdZHY/edit#
  - New application domains in building and architecture; looking in LBD ontologies and ifcOWL. Ontotext GraphDB is already used in running Swedish project for roads
  - c. Everyone can edit the Google doc
  - d. Want to participate in a consortium, but Ontotext does not plan to lead. Involvement needed from academia and governments
  - e. Digital EU program, first deadlines in sept, practically oriented: creating data spaces for variety of industries

- f. Main interest in current open call Global Challenges and European Industrial Competitiveness > Cluster 4 digital Industry and Space > p31
- g. Total budget and project size => determines consortium size (e.g. 10M ~20 partners)
- Subjects: legal tech, building and infrastructure regulations as structured data, development of semantic models applicable to many EU countries, combination of BIM and GIS
- Potential partners: Birmingham City University (UK), Ramon Llull University,
   Ecole des Mines de Saint-Etienne, VTT technical research centre, CVUT v Praze
- j. Call for extra input and participants

### 5. Results of voting

- a. Presentation of voting results
- b. Initiation of a 'Working Group'
  - i. Overview of steps: <a href="https://www.w3.org/Guide/process/charter.html">https://www.w3.org/Guide/process/charter.html</a>
  - ii. General info on working groups:
    <a href="https://www.w3.org/2020/Process-20200915/#GAGeneral">https://www.w3.org/2020/Process-20200915/#GAGeneral</a>
  - iii. Majority of 17 members want both CG and WG
  - iv. Will gather more info on steps to WG with the chairs
  - v. Contact with Ted Guild (W3C):
    - 1. Web of Things group is interested in collaboration
  - vi. Preparation of community report should be start: use cases, requirements, deliverables => req to start a working group
  - vii. Other voting results: format of LBD CG calls
- c. Future formats of CG calls
- 6. Intro to new format: 'Elevator Pitches'
  - **a.** Support discussion and exchange, research or industry case, 5 min and 2-3 slides, start of regular calls
  - **b.** Interested members are invited to send an email to the chairing team.
- 7. Intro to new format: 'Focus Group Workshop'
  - a. Goals and date
    - Goals: Find colleagues working on similar subjects, stimulate collaboration, working towards common goals (paper, project, funding, etc.)
    - ii. Date: 1st workshop scheduled for regular LBD CG Call on 04/05/2021
  - b. Call for 'Focus Group Pitches'
    - i. Formular: <a href="https://forms.office.com/r/EArggkLVLK">https://forms.office.com/r/EArggkLVLK</a>
    - ii. Open till 20/04/2021
    - iii. Prep pitch of 5min / 2-3 slides: start of forming focus point groups
    - iv. You can decide which group you want to be in during the workshop
    - v. Examples/suggestions for 'Focus Groups' given in the call's presentation, other suggestions are allowed!
- 8. Best Practices for Publishing Ontologies by Mathias Bonduel

- a. Please consult the presentation slides (see link to Google presentation above) for detailed information.
- b. Mathias Bonduel outlined "Best Practices for Publishing Ontologies", namely methods (aspects to be considered) and tools on how to
  - i. create a persistent namespace
  - ii. Choose a prefix
  - iii. Ideally provide RDF files of the ontology online with open access
  - iv. provide example data and queries
  - v. test the ontology's consistency with a reasoner
  - vi. check an ontology for pitfalls
  - vii. evaluate if minimal required metadata is provided
  - viii. attach a license to an ontology
  - ix. "talk" about an ontology (publications, presentations, etc.)
  - x. Engage in interactions with users.
- c. Links to helpful tools, references, tutorials and further readings on the Web are provided.
- d. The presentation content will also be published on Github.
- e. Q&A: (Mathias) In the case of questions concerning "Linked Open Vocabularies (LOV)" María Poveda-Villalón (UP Madrid) could provide further information (see <a href="https://lov.linkeddata.es/dataset/lov">https://lov.linkeddata.es/dataset/lov</a>). (Maria Poveda) invites CG members to contact her directly in the case of further questions on LOV email: <a href="mpoveda@fi.upm.es">mpoveda@fi.upm.es</a>).
- f. Maria Poveda recently published a paper on <u>"Best Practices for Implementing FAIR Vocabularies and Ontologies on the Web"</u> which might provide further support to the topic.
- 9. Open action items (Github issues) by Mathias Bonduel
  - a. GitHub Issues (BOT): currently 17 open issues
  - b. Discussion was made on the following (oldest) open issues:
    - i. Issue #24 bot:adjacentElement, bot:containsElement and bot:intersectingElement should be disjoint properties?

<u>Discussion</u>: (Mathias) Similar to bot:containsZone, bot:adjacentZone and bot:intersectsZone, these three properties linking to elements should be disjoint. As it concerns formal logic, this is scheduled for v0.4.0. (group) no objections

Conclusion: The disjoint axiom will be added in v0.4.0.

<u>Voting</u>: Group participants not in this call will have the chance to respond to the proposed change via a summary email send out by the chairs in the public mailing list (2 weeks respond time).

ii. Issue #72 - Reintroducing deprecated property in BOT

<u>Question</u>: Should outdated properties be reintroduced marked as deprecated?

<u>Discussion</u>: Pros and cons of concepts of deprecated property definitions (e.g. owl:deprecated) (Mads) Deprecated property definitions are implemented to ensure ontologies' backward-compatibility. (Karl) We should look deeper into it and compare it to other ontology models. (Mads) proposes to allow the usage of deprecated property definitions for the current BOT version and to exclude it for BOT version 1.0.0 to be published. (Mathias) reintroducing the deprecated property will not trigger any unwanted inferences, thus rel. Harmless to reintroduce.

<u>Conclusion</u>: (group) Agreement on Mads proposal. The bot:hostsElement property will be added as deprecated to the current v0.3.2 (using owl:deprecated and starting rdfs:comment with "This property is DEPRECATED, use bot:hasSubElement instead // ORIGINAL definition: ...". In addition, an rdfs:seeAlso to the other BOT property that should be used instead (bot:hasSubElement) is included. The HTML doc of BOT will also include this deprecated property.

<u>Voting</u>: Group participants not in this call will have the chance to respond to the proposed change via a summary email send out by the chairs in the public mailing list (2 weeks respond time).

## iii. Issue #74 - Change bot:hasSubElement to transitive and add property chain axiom

<u>Discussion</u>: on two possibles update definitions concerning bot:hasSubElement:

- 1. bot:hasSubElement a owl:TransitiveProperty
- 2. bot:containsElement owl:propertyChainAxiom
   (bot:containsElement bot:hasSubElement)

(comment from Maxime on Github) combining transitivity and property chain axioms: still in OWL 2 DL? (Mads) Already have this combo in the current version of BOT and no problems noticed.

(Mads) Danger that people create 'circular references' when including both updates. (María) There might be issues with the combined use of cardinality restrictions and transitivity (Mads) Adding this property chain axiom for the subelements of building components will result in a large number of inferences, e.g. from the space, the storey, the building and the site to that subelement. (Mathias) Only introducing transitivity statement can be considered instead. Since it considers a change in the formal logic, the update will be proposed for v0.4.0

Conclusion: (group) Agreement on BOT update no. 1 -

bot:hasSubElement a owl:TransitiveProperty.

<u>Voting</u>: Group participants not in this call will have the chance to respond to the proposed change via a summary email send out by the chairs in the public mailing list (2 weeks respond time).

c. Further Github Issues (BOT) to be commonly tackled soon.

### 10. Further discussion points

### a. Additional 'Best Practices' needed?

i. The CG highly appreciated the compilation 'Best Practices for Publishing Ontologies' by Mathias Bonduel. No feedback on further demands. (Mathias) One idea would be to revise the published LDAC 2019 summer school presentations (link). The content could be a good starting point and overview for working with LBD, for people new into the domain - given that it is provided in a structured way. It might be necessary to contact the authors for providing a short version of their contributions. (Katja) Very good idea: The chairing team will elaborate a proposal.

### b. Other communication tools needed?

- i. The pros and cons of different communication tools are discussed, namely Slack, Discourse and Glitter. MS Teams would be used for future forum sessions. (Edlira) prefers Slack. (Katja) Has only experience with Slack so far, an overview of pros and cons would be helpful. (Rui De Klerk): A forum structure would be better, Discourse should be more practical, especially as overview is maintained over time with new people joining the group or getting into the subject.
- **ii.** Life presentation of Discourse by Mathias. (Joel): If Microsoft purchases Discourse it could change the rules.
- iii. The chairing team will revise possible solutions (with pros and cons) in order to decide on one.

### c. Future life of 'W3C Wiki'?

i. (Mathias) The chairing team prefers Github for publishing content as it allows contributions of the CG in a dynamic way. W3C Wiki is more static.

ii. The chairing team will internally decide on possible further usage of the Wiki. Tendency to leave the empty Wiki as such (mandatory to be included on the Web page of each W3C CG).

### d. Further topics

i. None.

### **Next Call**

• 06/04/2021, Tuesday, 16:00-17:30@UTC

**Agenda:** Presentation 'DTDL ontology modelling and utilization within Azure

Digital Twins' by Karl Hammer

We are interested in getting suggestions from the community about potential agenda items and **Elevator Pitches** for the following calls. Please send your suggestions to the chairs or to internal-lbd@w3.org, whether you have a short presentation to bootstrap the discussion, and an approximate duration you think the discussion will last.

### **Previous minutes**

https://www.w3.org/community/lbd/meeting-minutes/