

AgroPortal: an ontology repository for agronomy

Clement Jonquet

▶ To cite this version:

Clement Jonquet. AgroPortal: an ontology repository for agronomy. 11th Conference on Information Technology in Agriculture, Food and the Environment (EFITA 2017), Poster session, Jul 2017, Montpellier, France. , 2017. lirmm-01598854v2

HAL Id: lirmm-01598854 https://hal-lirmm.ccsd.cnrs.fr/lirmm-01598854v2

Submitted on 21 Jan 2019

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

CALL FOR DEMONSTRATION

2017 EFITA CONGRESS



EUROPEAN CONFERENCE DEDICATED TO THE FUTURE USE OF ICT IN THE AGRI-FOOD SECTOR, BIORESOURCE AND BIOMASS SECTOR

I. About your profile

| demonstration coordinator | Last name and first name | Clement Jonquet | |
|------------------------------|---|--|--|
| | Area of expertise | Informatics, Ontologies & vocabularies, Metadata & standards, Semantic Web, Linked Data, Knowledge organization systems, Knowledge engineering. | |
| | E-mail address | jonquet@lirmm.fr | |
| | Phone number | +1 650 723 6725 | |
| Your organization | Name of your organization | LIRMM Laboratory of Informatics, Robotics and Microelectronics of Montpellier (LIRMM), University of Montpellier & CNRS, France. Visiting scholar at Stanford Center for Biomedical Informatics Research, Stanford University | |
| | Organization description and activity | The LIRMM – Laboratory of Informatics, Robotics, and Microelectronics of Montpellier (www.lirmm.fr) is a 350-person cross-faculty research entity of the UM and the National Center for Scientific Research (CNRS). LIRMM research activities cover a broad range of topics, including: design and verification of integrated, mobile and communicating systems, modeling of complex systems, research on algorithms, bioinformatics, human-machine interaction, robotics, database, distributed systems, AI, knowledge engineering and more. LIRMM's Informatics department counts 85 permanent researchers, and more than 70 PhD candidates. Several research teams (ADVANSE, SMILE, GRAPHIK, TEXTE) have good expertise in knowledge engineering, semantic Web, text mining, services and agronomical/biomedical ontologies. | |
| | | Stanford Center for Biomedical Informatics Research (BMIR) (http://bmir.stanford.edu) is a division in the Department of Medicine within Stanford University School of Medicine. It is home to world class scientists and trainees developing cutting-edge approaches to acquiring, representing, processing, and managing knowledge and data related to health, health care, and the biomedical sciences. BMIR encompasses 8 full-time faculty, approximately 20 research staff, post-doctoral trainees, graduate students and administrative support staff. BMIR develops the Protégé ontology editor (http://protege.stanford.edu) now used by thousands of ontologists and developers worldwide to build intelligent computer systems and semantic application for eScience. The National Center for Biomedical Ontology (NCBO) (http://www.bioontology.org) is one of the 8 NCBCs founded under the US National Institutes of Health (NIH) Roadmap to promote the use of biomedical ontologies. | |
| | Address of the organization | 161 Rue Ada, 34090 Montpellier, France | |
| | Website | www.lirmm.fr | |

II. About your demonstration

| Demonstration title | AgroPortal: an ontology repository for agronomy |
|--|---|
| Key word(s) | ontologies, standard vocabularies, ontology repository, ontology mapping, semantic annotation, ontology recommendation, agronomy, plant, food, biodiversity |
| Technical content of the demonstration | The demonstration will show the features offered by the portal, including: - to search and browse across all the ontologies, - to annotate a piece of text with all the ontologies, - to store and serve mappings between ontologies (within the portal or not), - to recommend ontologies for given text input, - to list project using ontologies ontology versioning, UI widgets, ontology metrics - community feedback (comment, subscription to ontology changes), users' management, private access to ontologies. In addition, two endpoints allow automatic querying of the content of the portal: (i) a REST web service API (http://data.agroportal.lirmm.fr) and (ii) a SPARQL endpoint (http://sparql.agroportal.lirmm.fr). They will be shortly illustrated also. |

| Relevance to conference topic and track | | Relevant to topic group | o "Semantic interoperab | ility and Kno | owledge Manag | ement" | |
|--|--|--|--|--|--|--|--|
| topic und a don | vocabularies - identified 77 c ontology deve | w an advanced prototype – including 4 privates ones candidate ontologies and we elopers. The platform counts ontologies uploaded in Agrol | and 40 not originally proper are working daily to in already 51 registered us | esent in Bio | Portal or any p | oublic repository. We | e have |
| | | | | | | | |
| | Title | Tracit Outala av. (CO, 200) | | Group | | Classes | |
| | | Trait Ontology (CO_320) at Trait Ontology (CO_321) | | | P, RICE P, WHEAT | 2066 1023 | |
| | | at Anatomy & Development | Ontology (CO 121) | | P, WHEAT | 77 | |
| | | Research (CO 715) | Ontology (OO_121) | CROF | • | 256 | |
| | | RI Multi-Crop Passport Onto | logy (CO 020) | CROF | | 87 | |
| | | y (BIOREFINERY) | | LOVII | NRA | 287 | |
| | Matter Tra | ansfer(TRANSMAT) | | LOVII | NRA | 1125 | |
| | Plant Onto | ology (PO) | | | AT, RICE | 1728 | |
| | | t Ontology (TO) | | | AT, RICE | 2258 | |
| | | heat (DURUM_WHEAT) | | LOVII | | 127 | |
| | | al Experiments (OAE) | | LOVI | | 59 | |
| | | ent Ontology (ENVO) anismal Classification (NCB | ITA YON) | WHE | | 6191 906907 | |
| | NCBI Org | anismai Ciassilication (NCB | TIAXUN) | VVIII | 41 | 900907 | |
| | | | Search all ontologies | Find an ontology | ik vour cent project that uses contributes to the description contributes or entrology-based project, provide comments on the comments on the contributes of the comments on the contributes of the cont | Issue tracking on Gi | 24 (February 2016) iitHub |
| | OAgroPortal Browse | Search Mappings Recommender Annotator Projects | South of confliction The control of | Browse Ontologie Latest Notes Un peur d'histoire. S'encotts age les | Equive to the same | Seach recourse Seach recourse Seach recourse Seach Seach Seac | itHub |
| | Browse | | The complete a Management Management Advanced Search Sign In Integral In | Brown Ontologie Brown Ontologie Lidest Notes Un peur disbater. 5 mostis ago by inflorescente est universe in annum en miner en facility. | Equive L2 Blassa Androny on two Courses Latine got signific "Revis". It est be | Seach records Seach records Aburated Records Seach Aburated Records Seach Aburated Records Seach Seach Record | r.org/ontologies |
| | Browse Access all ontologies that are available in the BC AgroPortal RSS freed to receive alert | in IBC AgenPertal: You can fifter this list by category to display ontologies relevant for a to for schemistions of new ontologies, new vertices of ontologies, new rotice, and new pro by the Submit New Ontology link (you need to sign in to see this link). | Advanced Seach Stee In Telegraphic Control of the | Disconsideration of the state o | Episee 12 13 14 15 16 16 16 16 16 17 17 17 18 18 18 18 18 18 18 | See A recours See A recours | v.ora/ontologies |
| | Browse Access all ontologies that are available in the BC AgroPortal RSS freed to receive alert | In BC Agenerata. You can then this bit by category to display ontologies relevant for a yet the Schmitter North Control of the Control of th | Advanced Search Steps in 1869 Steps in 1869 Level and Manager Search Scowing 29 of 29 Search Showing 29 of 29 Search Fewel contology (types, relations) for Level contology (types, relations) for Level contology (types, relations) for | Brown Continues on the Continues of the Continues on the | Equies to the second of the se | Seach records Seach records Aburated Records Seach Aburated Records Seach Aburated Records Seach Seach Record | v.ora/ontologies |
| | Browse Across all ontologies that are available in the Kingdorgial Six first in sector defined and a new control of the Six for the Six first in the Six for the S | In BC Agenerate. You can fifter this list by category to display oreologies relevant for a to be understand or fore an indispersion where we return of endogrees, ever return, and new properties. Seath | Advanced Elemba Stage for Mexico Stage for Stage for | Bones Christopia Bones Christopia Lader Males Lader Ma | Separation | See Amounts See Amounts Learning See Amounts Advanced Resource See Committee (1988) Advanced Resource See Committee (1988) See | r.ora/ontologies |
| | Browse Access of entologies that are available in the St. Applicated St. Steel or receive derivation of the St. Applicated St. Steel or receive derivation of the St. Applicated St. Steel or receive derivation of the St. Applicated St. Steel or receive derivation of the St. Applicated St. Ap | In III C AgroPertal: You can fifter this bit by category to display ontologies relevant for a to for animalism of new antilogies, one were written of ontologies, ever mote, and new position of the control of the cont | Advanced Search Stage for Petrop Contrain domain. You can also filter consologies that belong to a certain group- green. You can advance to freely the specific entiology in the included and Showing 29 of 29 Sent. Fing Favor contology types, relations for territory. It for generation of ecosystem research in | Tomos distinguishment of the control | Square | Seed records Seed records Advanced Browner Seed Advanced Browner Seed Seed COLD Line - Seed Browner Browner Seed COLD Line - Seed Browner Seed COLD Line - S | M. Artis, controllogica A. Artis, controllogica ceau, controllogica (controllogica) |
| | Browse Acress all entologies that are available in Add a new contology to the Agentural uses Add a new contology to the Agentural uses Submit New Ontology Entry Type Schooling on Contology Wave as Contology Wav | In BC Agenerate. You can their this bit by category to display oriologies relevant for a significant for a confine program of the School (School). The second form of the significant form of the School (School) | Adjusted Seach Stags to Interpretation of the contrologies that belong to a certain group, contain domain. You can also filter contrologies that belong to a certain group operat. You can subscribe to feeds for a specific contrology at the individual or of specific contrology at the individual or of specific contrology to the individual or of specific contrology the specific contrology to the individual or of specific control or of specif | Territorial Designation of the Control of the Contr | Separation | Mount records (A) Section (A) | M. Artis, controllogica A. Artis, controllogica ceau, controllogica (controllogica) |
| | Browse Access all entologies that are available in Access all entologies that are available in Access all entologies to the Access and entology to the Access and Acc | In BC Agenerate. You can fifter this bit by category to display oreologies relevant for a region of the control | Adjusted Seach Stags to Interpretation of the contrologies that belong to a certain group, contain domain. You can also filter contrologies that belong to a certain group operat. You can subscribe to feeds for a specific contrology at the individual or of specific contrology at the individual or of specific contrology to the individual or of specific contrology the specific contrology to the individual or of specific control or of specif | Brown Orthopic Committee C | Separation | Mount records (A) Section (A) | M. Artis, controllogica A. Artis, controllogica ceau, controllogica (controllogica) |
| A description of your demo that will appear in the program | Browse Acress all contingues that are available is included in the case of contingues that are available in the case of the ca | In IBC Agenithratal. You can fifter this bit by category to display oreologies relevant for a ray the Schott New Continuous, and free program to see this lead. Semanticscricence Integrated Ontology (SIO) The semanticscricen integrated oreology (Dio) provides a steps, knograted upper constitute transleting representation across physical processual and information (Baptiste 42015) AnalE is not Usedone infrastructure project whose goals to overcome the content translets of the content translets of the content of | contain domain. You can also filter contrologies that belong to a certain group- greet. You can also filter contrology at the belong to a certain group- greet. You can also filter contrology at the indevidual or Showing 27 of 29. Sort. Pay the of contrology (types, relations) for the analysis of contrology (types, relations) for the analysis of contrology (types, relations) for an an ontology repositor and experience of the bi- group portal which feature antic annotation, as well is ant infrastructure. The try in terms of ontology | annotate appry for the aquiomedical do monitoring pays for the aquiomedical formatics appry for the aquiomedical formatics apprendiction and the appropriate t | demand. Anothers to the control of t | In the second control of the second control | a need opportal project opportunities. All of ect the opported |
| of your demo that will appear in the | Browse Acoss of entologies that are available in the contrology Browned Contrology Submit New Ontology Botty Type Contrology there is contrology Contrology there is contrology to the contrology there is contrology to the contrology to the contrology to the contrology to the contrology is contrology to the contrology is contrology in contrology | In the Capachertat tou can ther the bit by category to display emologies relevant to a can the property of the Solom New Contrology list (your meet to again to see this led). Semanticsclence Integrated Ontology (SIO) The semanticscance integrated contrology The semantics contrology The semantics cancer integrated contrology The semantics cancer integrated contrology The semantics ca | certain domain. You can also filter considerage that belong to a certain group- region. You can also filter considerage that belong to a certain group- region. You can subscribe to fresh first a specific entitlelay in the healthclast or Showing 29 of 29 Sort. [Fig. revol controlled.] (FALDO) | annotate appry for the agionemedical do sontology I as storing AgroPortal formats (e.s., and the low a | gronomic data. Solication. By recigirence or approximation in the cochosting, search and exploiting or specifically paying., SKOS, trait daccessible at Cal Resources and ANR-12-JSe Sklodowska-Ces Sklo | Therefore, there is a using the NCBO Bid. The AgroPortal Ontext of plant, agro. versioning, visualli ontology alignments or statention to respect dictionaries) or suphthr://agroportal.lirr | a need oportal project bnomy, ization, s. All of ect the ported mm.fr. |
| of your demo that will appear in the program Acknowledge- ments | Browse Across all controlpies that are available is included in the Last of Control of the Contr | In the Capachertat Tou can filter this his by category to display ornologies relevant for a ray to be soften two Crothogy list (pour meet to gaz, in to see this list). Semanticscience Integrated Ontology (SIO) The eventual country of the Control | contain domain. You can also filter considerage that belong to a certain group- report. You can also filter considerage that belong to a certain group- report. You can subscribe to fresh first a specific entitleligy in the relational or Showing 29 of 29 5 fort: First report controllegy types, relational for land use them in agro-information and can ontology repositor and experience of the book pogy portal which feature antic annotation, as well at an infrastructure. The try in terms of ontology essent our platform currer emantic Indexing of Free emantic Indexing of Free emantic Indexing of Free emantic Indexing of Free ench National Research evation programme under 10-LABX-20), the Comp try of Montpellier and the Duration of Prepara | annotate appry for the agiomedical dos ontology I as storing AgroPortal formats (e.g., and the Marie | gronomic data. Dication. By reugronomy domain in the cohosting, search and exploiting, search and exploiting of specifically pay g., SKOS, trait d accessible at call accessible at sexpectation of the cohosting, search and exploiting of specifically pay g., SKOS, trait d accessible at call Resources rant ANR-12-JS e Sklodowska-Cology Institute of | Therefore, there is a using the NCBO Bid. The AgroPortal Contention of Plant, agree at the American State of | a need opported project the ported mm.fr. a.fr/sifr) ropean ent No t ANR- |
| of your demo that will appear in the program | Browse Access of entologies that are available in the control of | In BC Ageneteral: You can there this bit by category to display ornelogues relevant for a significant form of the bit by category to display ornelogues relevant for a significant form. And free program of the form of the program of the form of the program of the form of the program of the form. Semanticscience Integrated Ontology (S10) The semanticscience integrated ontology (S10) provides a simple, terogrand upon ornel form of the provides of the of the | control domain. You can also little considerate the belong to a certain group- special control of the special consideration of the special control of the specia | annotate appry for the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire the agionemedical do so ontology I as storing AgroPortal formats (e.s. entire | gronomic data. Solication. By recigirence or approximation in the cochosting, search and exploiting or specifically paying., SKOS, trait daccessible at Cal Resources and ANR-12-JSe Sklodowska-Ces Sklo | Therefore, there is a using the NCBO Bid in. The Agroportal Limit Control of plant, agree in the Agroportal Control of plant, agroe in the Agroportal Control of plant agroe in t | a need opported project the ported mm.fr. a.fr/sifr) ropean ent No t ANR- |