

SEONT: Agricultural Household Survey Ontology

Project Title: P1541 - CoP Ontology Module 2

Description of the innovation: CGIAR and partners produce a great amount of household surveys and community-agreed set of well defined and semantically organized concepts was missing to annotate data. SEONT, socio-economic ontology developed by IFPRI, CIMMYT and Alliance, integrates the core set of 'must have' 100 questions based on RhoMIS. The objective is to support the design of survey forms, so collected data are properly described according to the interoperable principle of FAIR data for storage in databases.

New Innovation: No

Stage of innovation: Stage 2: successful piloting (PIL - end of piloting phase)

Innovation type: Research and Communication Methodologies and Tools

Geographic Scope: Global

Number of individual improved lines/varieties: <Not Applicable>

Description of Stage reached: A first module of the SEONT ontology was developed based on the extraction of concepts and variables from the '100 core questions' and from reference existing ontologies. A study case was performed with IRRI survey data about rice variety adoption to test SEONT content and validate ML concept extraction algorithm

Name of lead organization/entity to take innovation to this stage: IFPRI - International Food Policy Research Institute

Names of top five contributing organizations/entities to this stage:

- Bioversity (Alliance) - Alliance of Bioversity and CIAT - Headquarter (Bioversity International)
- IRRI - International Rice Research Institute
- CIMMYT - Centro Internacional de Mejoramiento de Maíz y Trigo / International Maize and Wheat Improvement Center

Milestones:

- 2.1.5. 2020 - Communities of Practice around geospatial data, socioeconomic data, ontologies, data-driven agronomy, livestock data, and crop modeling establish CoP networks across CGIAR and produce outputs addressing key constraints in data and analytics.

Sub-IDs:

- 45 - Increased capacity for innovations in partner research organizations

Contributing Centers/PPA partners:

- Bioversity (Alliance) - Alliance of Bioversity and CIAT - Headquarter (Bioversity International)
- CIMMYT - Centro Internacional de Mejoramiento de Maíz y Trigo / International Maize and Wheat Improvement Center

Evidence link:

- <https://github.com/AgriculturalSemantics/socio>

Deliverables associated:

- D8066 - SociO! (<https://sites.google.com/view/copsed-shared-space/working-groups/socio>)
- D8108 - An ontology for harmonizing the collection, organization, and re-use of socioeconomics data from the Socioeconomic Community of Practice.
(<https://github.com/AgriculturalSemantics/seont>)
- D11519 - Socio Economic Ontology interest Group web site
(<https://cgjar.sharepoint.com/sites/ontology-wg/socio/SitePages/Home.aspx>)

Contributing CRPs/Platforms:

- BigData - Platform for Big Data in Agriculture
- PIM - Policies, Institutions, and Markets