

Cooking with Semantic Web

sharing and managing knowledge in Food Science

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Our Focus

- Organizational aspects of knowledge sharing
 - fostering collaboration between knowledge workers
 - finding and removing (social or technical) obstacles to knowledge sharing
- Knowledge modeling
 - Building and reusing taxonomies, ontologies, thesauri for expert domains
- Knowledge intensive (web) applications
 - help users store, find, share, and reproduce relevant information

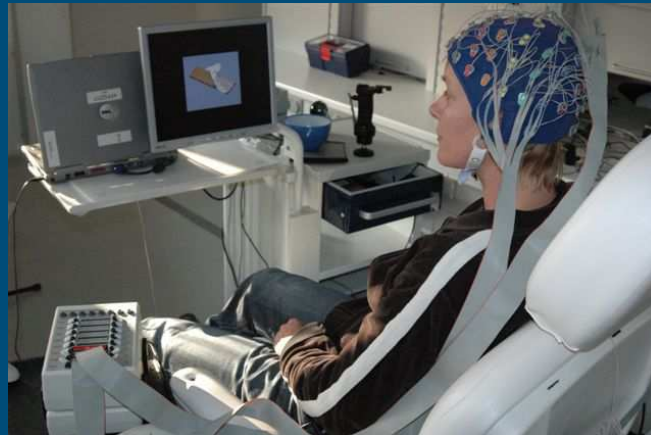


Semantic Web at AFSG

- AFSG develops knowledge-intensive applications in the domains of food production, logistics, and food research
- Use of SW technology provides many advantages for these projects
 - knowledge capture
 - reuse of vocabulary and models
 - adaptability of models in running systems

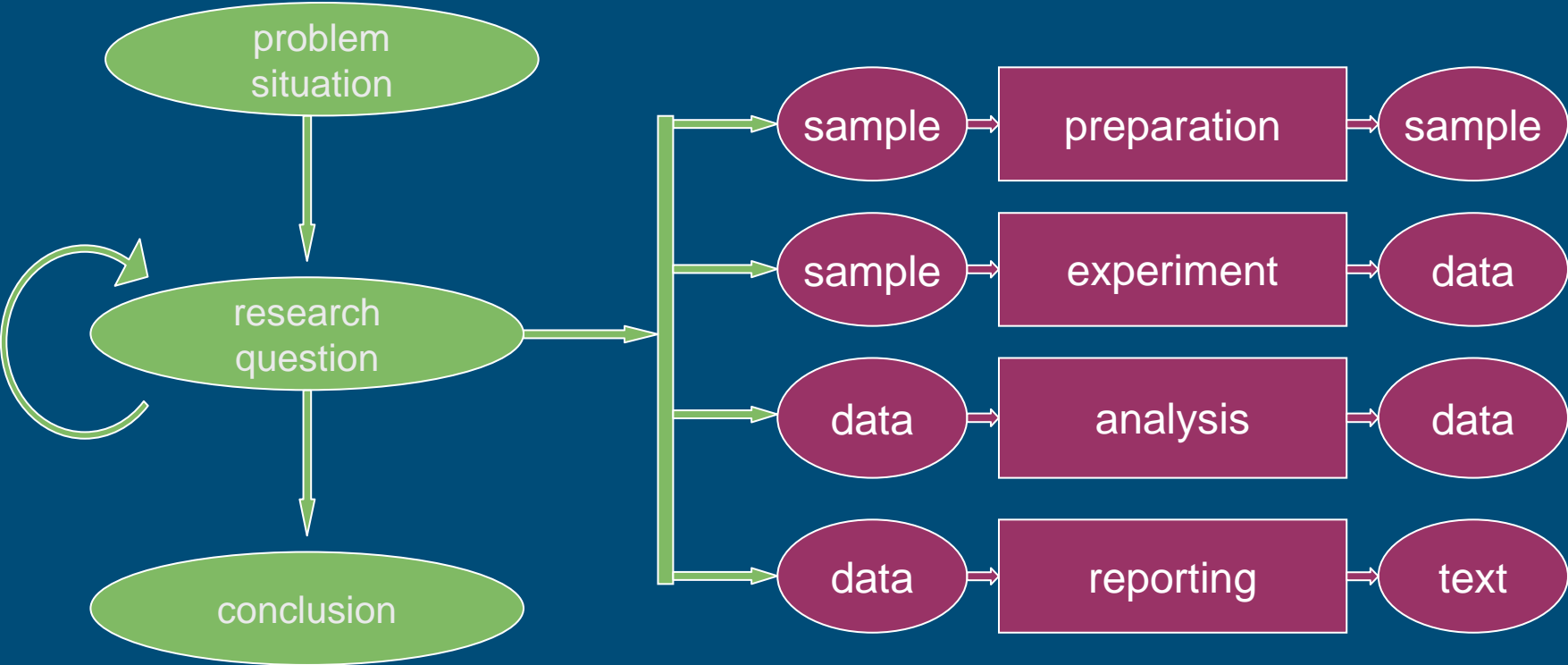


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Research model Tiffany





Quick Access

Research Question

Research Process

Create New Search

Search Clear Tags only

Research Question

Preparation

Experiment

Data Analysis

Reporting

Research Questions

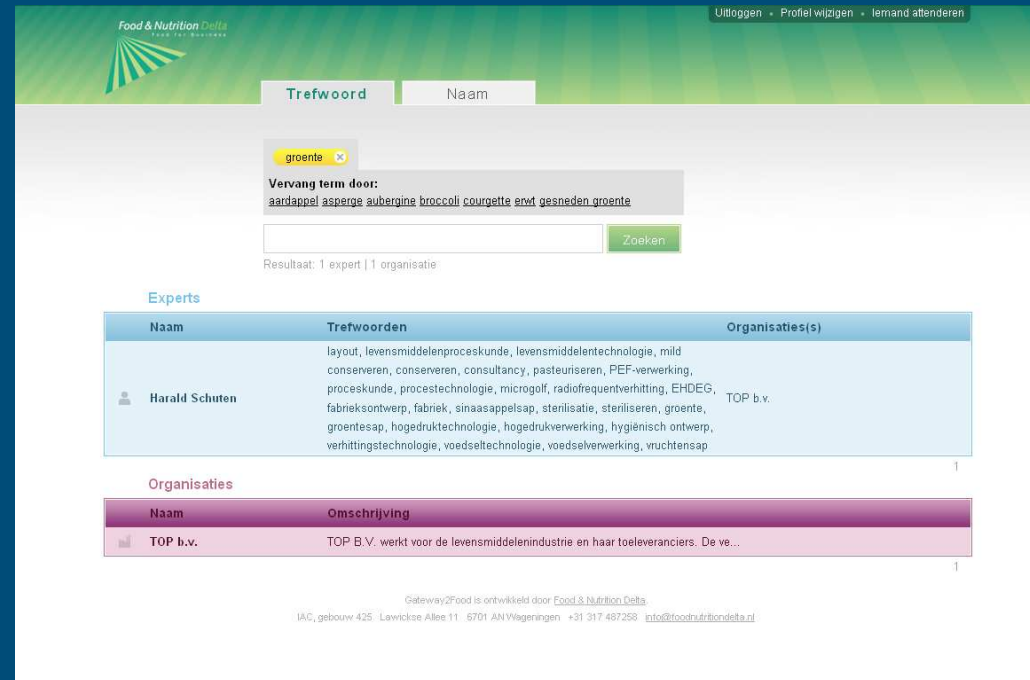
- ⊕ Applied Model Systems (subproject) (B1002)
- ⊕ B-1004 Texture Taste Interactions (B1004)
- ⊕ B1007 Engineered sensory and dietary functionality of dispersed fat (B1007)
- ⊕ B1009 Effect of water migration in solids (B1009)
- Confirmation of the sensory space of gels (B015)
- ⊕ Dynamics of biopolymer networks and the effects on perceived texture (B015)
- Effect of food on saliva tongue microbiota (B017)
- ⊕ Formation and stability of protein structures at high protein concentrations (B1002)
- ⊕ Integration of perception (B013 B008)
- METC Proposal (B013)
- ⊕ Methods to measure crispy/ crunchy properties (B012 B600 B1600 B014)
- ⊕ Parameters with influence on crispy/ crunchy properties (B012 B008 B014 B1600)
- ⊕ Perceived texture of semi-solids (B008)
 - ⊕ Mechanical properties of semi-solids (B008)
 - ⊕ Perceived texture of semi-solids commercially available (B008)
 - ⊕ Perceived texture of broad ranges of semi-solids (B008)
 - Perceived texture of commercially available mayonnaises (B008)
 - Perceived texture of commercially available sauces (B008)
 - Perceived texture of commercially available vlas (B008)
 - Perceived texture of semi-solids model products (B008)
 - ⊕ Which factors influence perceived texture of semi-solids? (B008)
- Sample and Profile selection (B015)

Basic Content

Configuration

FND “Gateway 2 Food”

- Competence Guide
 - relevant experts and organisations
- Experts tag their own profiles
 - food thesaurus (SKOS)
- Search matches terms
 - and provides ways to narrow/broaden your search by using thesaurus relations



The screenshot shows the Gateway2Food search interface. At the top, there is a navigation bar with 'Uitloggen', 'Profiel wijzigen', and 'Iemand attenderen'. Below this, there are tabs for 'Trefwoord' (selected) and 'Naam'. A search box contains the term 'groente'. Below the search box, there is a dropdown menu with 'Vervang term door:' and a list of related terms: 'aardappel', 'asperge', 'aubergine', 'broccoli', 'courgette', 'erwt', 'gesneden groente'. A 'Zoeken' button is visible. Below the search results, there is a section for 'Experts' and a table with columns 'Naam', 'Trefwoorden', and 'Organisatie(s)'. The table shows one expert, Harald Schuten, with a list of keywords and the organization TOP b.v. Below this, there is a section for 'Organisaties' with a table showing one organization, TOP b.v., with a description: 'TOP B.V. werkt voor de levensmiddelenindustrie en haar toeleveranciers. De ve...'. At the bottom, there is a footer with contact information for Food & Nutrition Delta.

Naam	Trefwoorden	Organisatie(s)
Harald Schuten	layout, levensmiddelenproceskunde, levensmiddelentechnologie, mild conserveren, conserveren, consultancy, pasteuriseren, PEF-verwerking, proceskunde, procestechnologie, microgolf, radiofrequentverhitting, EHDEG, fabrieksontwerp, fabriek, sinaasappelsap, sterilisatie, steriliseren, groente, groentesap, hogedruktechnologie, hogedrukverwerking, hygiënisch ontwerp, verhittingstechnologie, voedseltechnologie, voedselverwerking, vruchtensap	TOP b.v.

Naam	Omschrijving
TOP b.v.	TOP B.V. werkt voor de levensmiddelenindustrie en haar toeleveranciers. De ve...

Gateway2Food is ontwikkeld door Food & Nutrition Delta
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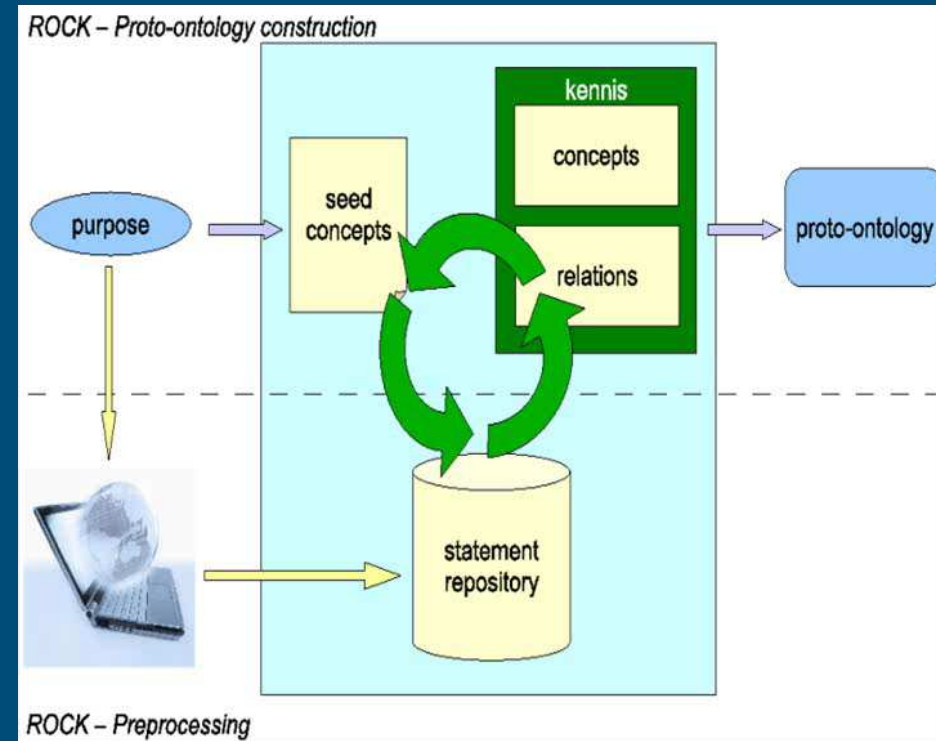


Rapid Ontology Construction

Supporting the domain expert in independently creating models

ROC tool uses expert input to pick relevant starting points from existing models

Domain model ('proto-ontology') is created by interactively extending a set of selected core concepts and relations



Thank you for your attention

<http://www.afsg.nl/IM>

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