



WP2 Breakout
Dubrovnik – 2009-06-24

Eva Blomqvist (CNR)
eva.blomqvist@istc.cnr.it



WP2 - Breakout schedule (Part I)

- 09:30-09:45 Introduction – CNR (Eva)
 - Planning for year 4, deliverable schedule and content (CNR – Eva)
- 09:45-10:00 Task 2.1 – CNR (Eva)
 - Presentation on D2.1.2 and plan for the final year (CNR)
- 10:00-10:30 Task 2.2 - OU (Sofia)
 - Discussion on D2.2.4 content (due on M44)
 - Evaluation of folksonomy re-engineering (OU) - 15 minutes
 - Refinement of methods and reengineering patterns for transforming non-ontological resources into ontologies (UPM) - 15 minutes
- 10:30-11:00 Task 2.3 - CNR (Eva) - continued after the break
 - Reports on current status, integration and release plan
 - Kali-ma (CNR) - 10 minutes
 - Social network analysis tools - integration with Kali-ma? (JSI) - 5 minutes
 - Cicero - release plan and Kali-ma integration (UKO-LD) - 10 minutes



WP2 - Breakout schedule (Part II)

- 11:20-11:40 Task 2.3 - CNR (Eva) – continuation
 - Reports on current status, integration and release plan
 - Open Rating System - release plan and possible integration with the ODP portal (UKARL, OU) - 10 minutes
 - Collaborative data and text annotation tools (COAT) - release plan and Kali-ma integration (USFD) - 10 minutes
- 11:40-12:00 Task 2.4 - USFD (Wim)
 - Report on deliverable 2.4.3 (M41) and plan for Y4
 - LIR extension
 - Conversion of Agrovoc Concept Server linguistic information into LIR
 - Alignment of LIR with translation standards
- 12:00-12:45 Task 2.5 - CNR (Eva)
 - Report on XD plugin, ODP portal and re-engineering
 - XD plugin release plan and functionalities, integration with Watson and Cupboard (CNR) – 15 minutes
 - ODP portal and collaboration/dissemination on ODPs (CNR) – 15 minutes
 - Re-engineering patterns (UPM) – 15 minutes

- **Task 2.1 - Formal specification of collaborative aspects of ontology design.**
 - Task leader - CNR
 - Codo-light has been aligned with OMV, OWL ODM, the Networked Ontology Metamodel, as well as many other non-NeOn vocabularies, and plugins to the NTK have been described in its terms. C-ODO is the glue for various streams of work in WP2. **In the final year, the focus will be on evaluating and fine-tuning the model developed during the previous years.**
 - **Deliverables:** No deliverable
 - **Content of work Y4:**
 - **Feedback and revision of Codo-light**

- **Task 2.2 - Methods and tools for collaborative engineering of ontologies.**
 - Task leader - OU
 - T2.2 provides methods and tools to support re-engineering, evaluation and selection of ontologies and their components in the context of building networked ontologies. Within T2.2 we distinguish between two subtasks: one dealing with ontology selection and evaluation, and another focusing on re-engineering. **In the final year, the focus will be on evaluating and fine-tuning the techniques developed during the previous years.**
 - **Deliverables:** D2.2.4 at **M44**: Final version of methods for re-engineering and evaluation (OU, UPM)
 - **Content of work Y4:**
 - **Evaluation of reengineering folksonomies, refinement of re-engineering patterns, evaluation of open rating system (simulation based)**

- **Task 2.3 - Methods and tools for supporting collaborative design of networked ontologies.**
 - Task leaders – USFD, CNR
 - T2.3 focuses on practical support for collaborative design of ontologies. In the final year, besides evaluating and fine-tuning the techniques developed during the previous years, the focus will be on:
 - Kali-ma (CNR)
 - Social network analysis tools (JSI)
 - Cicero (UKO-LD)
 - Open Rating System (UKARL, OU) ?
 - Collaborative data and text annotation tools (COAT) (USFD)
 - **Deliverables:** Software deliverables D2.3.4 at **M43**: Kali-ma v1.0 (CNR), D2.3.5 at **M46**: Kali-ma v2.0 (CNR)
 - **Content of work Y4:**
 - **Two releases of the Kali-ma software, integration of plugins, evaluation**
 - **JSI – WP7 on social network analysis, COAT – import/export of ontologies, other technical improvements (will be new release)**

- **Task 2.4 - Multilingual and localization support for ontologies.**
 - Task leader – USFD
 - This task focuses on a network of ontologies comprising standard linguistic and terminological descriptions, and on (semi-)automatic translation techniques. Activities in Y4 will include, besides existing tools finalization and improvement:
 - The Linguistic Information Repository (LIR) will be enhanced according to use case needs., and integrated into the ontology network
 - A method for customized reengineering of lexical/terminological resources and semantic web vocabularies into ontologies (CNR, USFD)
 - **Deliverables:** D2.4.3 at **M41**: Multilingual ontology support and plugins for localization of ontologies (USFD, UPM) and D2.4.4 at M48: An integrated model for lexical/terminological resources and ontologies (USFD, CNR)
 - **Content of work Y4:**
 - **Label translator ends M41, continue modelling work on resources**

- **Task 2.5 - Library creation and management support for ontology design patterns.**
 - Task leader – CNR
 - T2.5 focuses on ontology design patterns. Activities in Y4 will include, besides existing tools finalization and improvement:
 - Extending the web catalogue of ODPs (ontologydesignpatterns.org) with different kinds of patterns e.g. reengineering patterns, lexico-syntactic etc. (CNR, UPM)
 - Maintenance of the ODP catalogue and community development, also including the creation of new areas (CNR)
 - Software support for pattern-based ontology design (CNR)
 - **Deliverables:** D2.5.2 at **M44**: Library of ontology design patterns, and software support for pattern-based design (CNR)
 - **Content of work Y4:**
 - **Portal submission and review of re-engineering patterns, structural patterns, correspondence patterns, WOP workshop at ISWC**
 - **XD integration with Watson and Cupboard, pattern selection**



WP2 - Breakout schedule (Part I)

- 09:30-09:45 Introduction – CNR (Eva)
 - Planning for year 4, deliverable schedule and content (CNR – Eva)
- 09:45-10:00 Task 2.1 – CNR (Eva)
 - Presentation on D2.1.2 and plan for the final year (CNR)
- 10:00-10:30 Task 2.2 - OU (Sofia)
 - Discussion on D2.2.4 content (due on M44)
 - Evaluation of folksonomy re-engineering (OU) - 15 minutes
 - Refinement of methods and reengineering patterns for transforming non-ontological resources into ontologies (UPM) - 15 minutes
- 10:30-11:00 Task 2.3 - CNR (Eva) - continued after the break
 - Reports on current status, integration and release plan
 - Kali-ma (CNR) - 10 minutes
 - Social network analysis tools - integration with Kali-ma? (JSI) - 5 minutes
 - Cicero - release plan and Kali-ma integration (UKO-LD) - 10 minutes



WP2 Breakout – **Task 2.1**
Dubrovnik – 2009-06-24

Presented by: Eva Blomqvist (CNR)
eva.blomqvist@istc.cnr.it

- **Task 2.1 - Formal specification of collaborative aspects of ontology design.**
 - Task leader - CNR
 - Codo-light has been aligned with OMV, OWL ODM, the Networked Ontology Metamodel, as well as many other non-NeOn vocabularies, and plugins to the NTK have been described in its terms. C-ODO is the glue for various streams of work in WP2. **In the final year, the focus will be on evaluating and fine-tuning the model developed during the previous years.**
 - **Deliverables:** No deliverable
 - **Content of work Y4:**
 - **Feedback and revision of Codo-light**



D2.1.2 - The collaborative ontology design ontology (v2)

- **Ontology application tasks that codolight can help achieving:**
 - Browsing semantic data about ontology projects, tools, data, repositories, solutions, discussions, evaluations, etc.
 - Searching and selecting design components based on design aspects, knowledge types, individual needs, user profiles, etc.
 - Creating design configuration interfaces that help/automatize the previous task
 - Help collecting ontology requirements, design functionalities, and ontology application tasks for an ontology project
 - Providing a shared network of vocabularies to create/query/reason on annotations and data related to ontology projects, including integration between annotations that have heterogeneous provenance, like in annotations coming from collaborative discussions, mixed with annotation produced by change management.



Layered architecture

- **Pattern layer** : it contains reusable content ontology design patterns (Content ODP) that include e.g. sequence, partof, situation, collectionentity, etc.
- **Core codolight layer** : it contains the nine modules of the codolight core network of ontologies, organized as in a corolla, with codkernel module in the center.
- **Plugin layer** : it consists of the modules containing the descriptions of the NeOn plugins related to ontology design, formalized in OWL by reusing the codolight vocabulary and some of the alignment modules.
- **Dashboard inference layer** : it consists of the modules containing the definition of the design aspects according to which tools, knowledge types, and functionalities are organized.
- **Alignment layer** : it consists of the modules containing mapping axioms between codolight and related vocabularies.



Core modules

- **Kernel.** Common concepts, such as ontology, ontology element, project, workflow etc. Concepts are specialized by the other modules.
- **Data.** This module contains the main notions classifying the data managed when designing an ontology: ontologies, ontology elements, Knowledge Organization Systems (KOS), KOS elements, rules, modules, encoding syntaxes, etc.
- **Project.** This module contains the minimal vocabulary for representing ontology design projects and their executions.
- **Workflows.** This module contains classes and properties to represent workflows from within ontology projects.
- **Argumentation.** This module contains the basic classes and properties to represent argumentation concepts: arguments, threads, ideas, positions, rationales, etc.

- **Solutions.** This module contains classes and properties to represent ontology design solutions: competency questions, ontology design patterns, ontology requirements, unit tests, etc.
- **Tools.** This module contains classes and properties to represent ontology design tools: tools, pieces of code, code entities etc.
- **Interaction.** This module contains classes and properties that represent some typical interaction entities: user types, computational tasks and workflows, etc.
- **Interfaces.** This module contains classes and properties that represent some typical interface entities: interface objects, panes, windows, etc.

Alignments

- Alignments to OWL metamodels, to the Ontology Metadata Vocabulary (OMV), to Description Of A Project (DOAP), to the Access Rights ontology, to the Sweet Tools MIT vocabulary, to the Protégé workflow ontology, and finally to the Software Ontology Model.

DOAP class	type of alignment	codolight class
doap:Repository	rdfs:subClassOf	collectionentity:Collection
doap:Project	rdfs:subClassOf	codkernel:Project
doap:Version	rdfs:subClassOf	coddata:Annotation
foaf:Document	rdfs:subClassOf	intensionextension:InformationObject

DOAP property	type of alignment	codolight property
foaf:topic	rdfs:subPropertyOf	topic:hasTopic
foaf:member	rdfs:subPropertyOf	collection:hasMember
foaf:page	rdfs:subPropertyOf	topic:isTopicOf

- In conjunction with the Kali-ma plugin integration
 - Developers describe their tool
 - Simultaneously give feedback on ontology
 - CNR will revise accordingly
 - **Important: please describe your tools, we need your feedback!**
 - **Need more information? Attend the Kali-ma ad-hoc today at 18:15**
- Long-term: also feedback from end-users
 - For example through Kali-ma usage



WP2 - Breakout schedule (Part I)

- 09:30-09:45 Introduction – CNR (Eva)
 - Planning for year 4, deliverable schedule and content (CNR – Eva)
- 09:45-10:00 Task 2.1 – CNR (Eva)
 - Presentation on D2.1.2 and plan for the final year (CNR)
- 10:00-10:30 Task 2.2 - OU (Sofia)
 - Discussion on D2.2.4 content (due on M44)
 - Evaluation of folksonomy re-engineering (OU) - 15 minutes
 - Refinement of methods and reengineering patterns for transforming non-ontological resources into ontologies (UPM) - 15 minutes
- 10:30-11:00 Task 2.3 - CNR (Eva) - continued after the break
 - Reports on current status, integration and release plan
 - Kali-ma (CNR) - 10 minutes
 - Social network analysis tools - integration with Kali-ma? (JSI) - 5 minutes
 - Cicero - release plan and Kali-ma integration (UKO-LD) - 10 minutes



WP2 Breakout – **Task 2.2**
Dubrovnik – 2009-06-24



WP2 - Breakout schedule (Part I)

- 09:30-09:45 Introduction – CNR (Eva)
 - Planning for year 4, deliverable schedule and content (CNR – Eva)
- 09:45-10:00 Task 2.1 – CNR (Eva)
 - Presentation on D2.1.2 and plan for the final year (CNR)
- 10:00-10:30 Task 2.2 - OU (Sofia)
 - Discussion on D2.2.4 content (due on M44)
 - Evaluation of folksonomy re-engineering (OU) - 15 minutes
 - Refinement of methods and reengineering patterns for transforming non-ontological resources into ontologies (UPM) - 15 minutes
- 10:30-11:00 Task 2.3 - CNR (Eva) - continued after the break
 - Reports on current status, integration and release plan
 - Kali-ma (CNR) - 10 minutes
 - Social network analysis tools - integration with Kali-ma? (JSI) - 5 minutes
 - Cicero - release plan and Kali-ma integration (UKO-LD) - 10 minutes



WP2 Breakout – **Task 2.3**
Dubrovnik – 2009-06-24

T2.3 – Focus of reports

- Status update – please be brief!
- Release plan for year 4
 - When?
 - What is new?
 - How reported?
- Integration plans/ideas/discussion
 - **Most important:** integration with Kali-ma
 - Also consider possible integration with ODP portal and/or XD



WP2 - Breakout schedule (Part II)

- 11:20-11:40 Task 2.3 - CNR (Eva) – continuation
 - Reports on current status, integration and release plan
 - Open Rating System - release plan and possible integration with the ODP portal (UKARL, OU) - 10 minutes
 - Collaborative data and text annotation tools (COAT) - release plan and Kali-ma integration (USFD) - 10 minutes
- 11:40-12:00 Task 2.4 - USFD (Wim)
 - Report on deliverable 2.4.3 (M41) and plan for Y4
 - LIR extension
 - Conversion of Agrovoc Concept Server linguistic information into LIR
 - Alignment of LIR with translation standards
- 12:00-12:45 Task 2.5 - CNR (Eva)
 - Report on XD plugin, ODP portal and re-engineering
 - XD plugin release plan and functionalities, integration with Watson and Cupboard (CNR) – 15 minutes
 - ODP portal and collaboration/dissemination on ODPs (CNR) – 15 minutes
 - Re-engineering patterns (UPM) – 15 minutes

T2.3 – Focus of reports

- Status update – please be brief!
- Release plan for year 4
 - When?
 - What is new?
 - How reported?
- Integration plans/ideas/discussion
 - **Most important:** integration with Kali-ma
 - Also consider possible integration with ODP portal and/or XD



WP2 - Breakout schedule (Part II)

- 11:20-11:40 Task 2.3 - CNR (Eva) – continuation
 - Reports on current status, integration and release plan
 - Open Rating System - release plan and possible integration with the ODP portal (UKARL, OU) - 10 minutes
 - Collaborative data and text annotation tools (COAT) - release plan and Kali-ma integration (USFD) - 10 minutes
- 11:40-12:00 Task 2.4 - USFD (Wim)
 - Report on deliverable 2.4.3 (M41) and plan for Y4
 - LIR extension
 - Conversion of Agrovoc Concept Server linguistic information into LIR
 - Alignment of LIR with translation standards
- 12:00-12:45 Task 2.5 - CNR (Eva)
 - Report on XD plugin, ODP portal and re-engineering
 - XD plugin release plan and functionalities, integration with Watson and Cupboard (CNR) – 15 minutes
 - ODP portal and collaboration/dissemination on ODPs (CNR) – 15 minutes
 - Re-engineering patterns (UPM) – 15 minutes



WP2 Breakout – **Task 2.4**
Dubrovnik – 2009-06-24



WP2 - Breakout schedule (Part II)

- 11:20-11:40 Task 2.3 - CNR (Eva) – continuation
 - Reports on current status, integration and release plan
 - Open Rating System - release plan and possible integration with the ODP portal (UKARL, OU) - 10 minutes
 - Collaborative data and text annotation tools (COAT) - release plan and Kali-ma integration (USFD) - 10 minutes
- 11:40-12:00 Task 2.4 - USFD (Wim)
 - Report on deliverable 2.4.3 (M41) and plan for Y4
 - LIR extension
 - Conversion of Agrovoc Concept Server linguistic information into LIR
 - Alignment of LIR with translation standards
- 12:00-12:45 Task 2.5 - CNR (Eva)
 - Report on XD plugin, ODP portal and re-engineering
 - XD plugin release plan and functionalities, integration with Watson and Cupboard (CNR) – 15 minutes
 - ODP portal and collaboration/dissemination on ODPs (CNR) – 15 minutes
 - Re-engineering patterns (UPM) – 15 minutes



WP2 Breakout – **Task 2.5**
Dubrovnik – 2009-06-24

ODP portal

- ontologydesignpatterns.org
- Current status
 - Only content pattern submission possible
 - 51 proposed content patterns
 - 15 members of the editorial board (1/3 non-NeOn)
 - 21 members of quality committee (i.e. reviewers) (1/2 non-NeOn)
 - 99 registered users (account only needed for editing)

▪ Demo



The screenshot shows the ODP portal interface. At the top, there's a navigation bar with buttons for 'page', 'discussion', 'edit', 'history', 'delete', 'move', 'unprotect', 'watch', and 'refresh'. Below this is the title 'Ontology Design Patterns . org (ODP)'. A paragraph of text describes the portal as a Semantic Web portal dedicated to ontology design patterns (OPs), mentioning its origin under the NeOn project. A 'NeOn' logo is displayed. Below the logo, there's a link to the home page of the 1st Workshop on Ontology Patterns (WOP). The main content area is divided into three columns: 'Contribute...' (with links like 'Submit Pattern', 'Post Review About a Pattern', 'Add Domain of Interest', 'Post Modeling Issue', 'Post Your Feedback', 'Request Account'), 'View...' (with links like 'List of Patterns', 'Reviews', 'List of Domains', 'Modeling Issues', 'Beautiful Ontologies', 'Users' Feedback'), and 'More information...' (with links like 'How to Post a Pattern', 'Training Area', 'Events', 'Partners', 'List of Categories', 'List of Properties'). A sidebar on the left contains sections for 'navigation', 'help', and 'contribute'. The footer includes the NeOn logo, the text 'IST-2005-027595 NeOn-project.org', and a 'catalogues' link. A lightbulb icon in the bottom right corner suggests visiting the 'What is a pattern?' page if the user is confused.

- Website: <http://ontologydesignpatterns.org/wiki/WOP2009:Main>
- Three parts: papers, posters, and patterns
- “Pattern writing” sessions
 - Patterns submitted through the ODP portal
 - Structural patterns (logical and architectural)
 - Correspondence patterns (re-engineering and alignment)
 - Content patterns
 - Reviews by PC and/or QC members
 - Accepted patterns get an advisor
 - Extended abstract published in proceedings
 - At the workshop
 - Discussion of issues
 - Improvements of the pattern
 - Possible certification
 - (Investigating special issue in a well known journal)

- Adding four new areas (within two weeks – for WOP submission)
 - Logical patterns
 - Architecture patterns
 - Alignment patterns
 - Re-engineering patterns
- New review template (for QC review and for WOP)
- Connection between modelling issues and patterns
- Statistics on pattern downloads
- Search functionalities
 - Indexing by Watson
 - Semantic search on pattern descriptions and metadata



WP2 - Breakout schedule (Part II)

- 11:20-11:40 Task 2.3 - CNR (Eva) – continuation
 - Reports on current status, integration and release plan
 - Open Rating System - release plan and possible integration with the ODP portal (UKARL, OU) - 10 minutes
 - Collaborative data and text annotation tools (COAT) - release plan and Kali-ma integration (USFD) - 10 minutes
- 11:40-12:00 Task 2.4 - USFD (Wim)
 - Report on deliverable 2.4.3 (M41) and plan for Y4
 - LIR extension
 - Conversion of Agrovoc Concept Server linguistic information into LIR
 - Alignment of LIR with translation standards
- 12:00-12:45 Task 2.5 - CNR (Eva)
 - Report on XD plugin, ODP portal and re-engineering
 - XD plugin release plan and functionalities, integration with Watson and Cupboard (CNR) – 15 minutes
 - ODP portal and collaboration/dissemination on ODPs (CNR) – 15 minutes
 - Re-engineering patterns (UPM) – 15 minutes