

CNL Comments and Questions

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Various Topics

- Previous issues from the Prospects and Properties paper.
- Recent comments by others.
- Additional topics.
- Contribute during the workshop. Have a look at the Prospects and Properties paper, comment on papers in the previous volume, add thoughts as they occur during the workshop.
- Posting in a public (amongst us) webspace?

Prospects and Properties

- Generic Properties
- Design Properties
- Linguistic Properties
- Relationships among CNLs
- Evaluation of CNLs
- Application Properties

Generic Properties

- Who are the intended users?
- What are the purposes?
- Is the language domain independent or dependent?

Design Properties

- Is the language easy to describe, teach, and learn?
- Is the language easy to write?
- Is the language easy to understand?
- Is the language formally or informally defined?
- Are the statements translated into a logic?

Linguistic Properties

- What linguistic literature or theory (if any) is one using to justify the linguistic properties of the language?
- What classes of nouns, verbs, adjectives, adverbs, quantifiers, etc. are supported?
- How is polysemy represented and resolved relative to context?
- Does the language support multi-linguality?
- What morphological word formation rules are supported, e.g. nominalisation and compounding?

Linguistic Properties

- How are interrogative and imperative forms treated?
- How are diathesis alternations treated?
- How are dynamic aspects of meaning addressed (context change, pronominal anaphora, sequence of tense)?
- What is the role of presupposition?

Relationships and Evaluation

- What are the subsumption and similarity relations of among existing CNLs (if any)?
- Are CNLs interoperable or modular?
- How can the relative performance of different CNLs be measured?
- Is there a common “pool” of use cases that we can use to evaluate a CNL?
- What is the measure of “naturalness” or habitability of a lexicon or grammar?

Application Properties

- Are there automatic checks for consistency and redundancy?
- Are inferences explained?
- Is there guidance on input style?
- What support tools are provided (editing, graphical representation, interactive disambiguation....)?
- How is the language maintained and developed?

Comment from Pawel Zarzycki

- Mentions several application areas he and colleagues are involved in using description logic, CNLs, and knowledge management:
 - Health domain for the knowledge base.
 - Mediation in civil law concerning agreements and ownership. Initially to support case-data (presumably the 'facts of the case').
 - Crisis management to provide an analysis of the situation then ask hypotheticals as a way to identify bottlenecks. This would include some representation of the legislation.

Comment from Tobias Kuhn

- Is there any industrial logic-based CNL that is in use?

Additional Comments/Ideas

- In response to Tobias, there is Oracle Policy Modelling (formerly RuleBurst, which I was going to discuss at last year's CNL workshop).
- In response to Pawel, it sounds like reasoning about norms (“usual” occurrences and deontic notions) is important.
- In response to Pawel, argumentation systems would appear to be highly relevant.

Additional Comments/Ideas

- Breaking the extensional FOL barrier seems highly important to deal with speech acts, propositional attitudes, non-intersective adjectives (good violinist, fake diamond), temporal reasoning, generalised quantifiers, modal operators (e.g. deontic notions).
- An 'interchange' language for the lexicon, morphology, syntax, and semantics would be useful so as to allow researchers to continue on their development path, yet allow cross-platform collaboration, integration, reuse, modularisation,...

Additional Comments/Ideas

- Dialogic and argumentative notions would make CNLs much more useful in multi-agent/user contexts where there is inconsistency and implicit meaning. See the range of issues in both the computational and informal logic communities.
- Dynamic languages for actions and context change?

An Open Source CNL for Applications

- Compare to Oracle Policy Modeling
 - Self-assessment Example of RuleBurst
 - RuleBurst Studio Training Information
 - Oracle Public Sector PR
 - OPM Essentials Training Course Info
 - Poulshock's Note on Modeling Legal Logic
 - Example of Rule Development in OPM
 - Bettain's Presentation on OPM

Contribute!