ELECTRONIC NEWSLETTER ON
REASONING ABOUT ACTIONS AND CHANGE

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Today

Today, the ENRAC has the pleasure to announce a major new initiative: the **Logic Modelling Workshop**, LMW. The LMW is the natural next step following the publication of reference articles in the ETAI, and it comes exactly one year after the initial call for contributions for those reference articles.

In brief, the idea is as follows. Our field can no longer continue with the exercise of toy examples for illustrating proposed new approaches, one after the other. Besides proposing logics for actions and change, we should also *use* them. The publication of *axiomatizations* of important classes of phenomena ought to be an important activity for the field. The analysis, validation, and comparison of those axiomatizations is also important, as well as the comparison of logics by way of comparing the use of several logics for the same class of scenarios.

The activity of producing, analyzing, and validating such axiomatizations (logic modelling, for short) needs a certain amount of structure. It also calls for a different *kind* of articles than what we are used to. The LMW proposes to use the following structure:

- Via the LMW web page, we maintain a set of *scenario worlds* that are proposed to be used for modelling. Each scenario world is posted with a specification, and links to the axiomatizations that have been submitted for it.
- As far as possible, we recommend that axiomatizations use the notations defined in ETAI accepted reference articles. This facilitates for later work to build on earlier work; it also facilitates comparisons between the submitted work.
- We also recommend authors to develop their work in a modular fashion. It is better to submit several short contributions, each dealing with one specific problem, than one large contribution containing everything.
- Facilities are of course provided for extending the reportoire of scenario worlds and the reportoire of reference articles defining the notations. There is also a section for "alternatives and challenges", open for submission of problems that are claimed to be outside the scope of standard approaches.

The LMW web page has been set up at

`http://www.ida.liu.se/ext/etai/lmw/`

It is also accessible from the menue in the ordinary ETAI web page for Actions and Change. - Concerning the formal publication status of LMW contributions, please see below.

The LMW is in operation, and additional material will be added successively. Contributions are invited effective immediately. Suggestions for additional scenario worlds, besides the two that are already on the web page, are particularly welcome. Comments about this initiative are most welcome as well!

Available reference articles

The ETAI accepted reference articles cover most of the current major approaches to reasoning about actions and change. However, we have been missing a reference article for the event calculus. Today, we announce that Murray Shanahan has submitted such a reference article. It will of course be refereed according to the same criteria as the earlier reference articles. Without anticipating the acceptance decision, the LMW will accept axiomatizations using the event calculus with the notation defined in the submitted article.

ETAI Publications

Received reference articles

The Event Calculus Revisited

by **Murray Shanahan**

Abstract: This article presents the event calculus, a logic-based formalism for representing actions and their effects. A circumscriptive solution to the frame problem is deployed which reduces to monotonic predicate completion. Using a number of benchmark examples from the literature, the formalism is shown to apply to a variety of domains, including those featuring actions with indirect effects, actions with non-deterministic effects, concurrent actions, and continuous change.

Publication Status for LMW Contributions

We foresee that contributions to the LMW will be shorter and more formal than classical research articles in our field. If an author succeeds well with modularizing his or her axiom set, and each module is written up as a separate contribution, we may hope to have contributions of around 8-10 pages each. This would be entirely normal in comparison with the publication habits of many other fields.

Since these articles may differ in many ways from traditional AI and KR articles, we do not consider it reasonable to channel them directly into the ETAI in all cases. Instead, LMW contributions will be published as *technical notes* in the ENRAC - the Electronic News Journal on Reasoning about Actions and Change. This means concretely:

- Submission as latex source using a standardized style file. (Sorry, we can't accept other formats).
- The area editor decides whether to accept a contribution or not. All reasonable contributions will be accepted.
- The ENRAC News Journal continues to appear each month as a rule; two-month issues may be used occasionally. Rapid publication is therefore guaranteed.
- ENRAC published technical notes are archived and fully citable.
- The major quality control for the technical notes will be done by how the contributions are used. There will be a discussion page for each note, allowing questions and comments to the author. More substantial feedback and commentary is best submitted as succeeding technical notes.
- As technical notes we also invite formal validation results, proving or disproving the correctness of a previously published axiomatization relative to an underlying semantics.
- We will try to create a cross-reference structure so that one can easily see when and how a particular contribution is later used by other authors.

Although the LMW technical notes are not fully peer reviewed publications, it is understood that their contents may be used as the basis for later, full publications. An article proposing an approach to a major representational challenge may rely on, and refer to, axiomatizations for nontrivial scenario worlds that have been previously (or concurrently) published as LMW technical notes.

In particular, the ETAI will welcome articles that make reference (without need for repeating the contents) both to ETAI reference articles for the conceptual and notational framework, and to LMW technical notes for the logicist modelling of scenario worlds. In this way we hope that the ETAI will be a forum where *results can accumulate* - so that new contributions can build effectively on earlier contributions.

This newsletter is issued whenever there is new news, and is sent by automatic E-mail and without charge to a list of subscribers, in plaintext format. The present postscript issue is a bona fide rendering of the same information in alternative typography. Instruction for contributors and other additional information is found at the following URL:

`http://www.ida.liu.se/ext/etai/actions/njl/`