## Open-endedness: a research forum

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A new research forum has been created for research on open-endedness and open-ended evolution. The current location of the forum is <a href="http://openended.protolife.org">http://openended.protolife.org</a>.

The motivation for a forum on open-endedness began with the series of workshops on Open-Ended Evolution, starting with OEE1 at York, and continuing in subsequent artificial life conferences. The workshops have always been a vibrant source of scientific interaction; this forum seeks to extend the conversation to an open-ended virtual domain.

The primary goal of the forum is to foster research on open-endedness and open-ended evolution. It seeks to provide research functionalities that are complementary to conventional research tools: (i) literature aggregation across all publication channels, with easy access to Google citation tools for each publication, and with community curation via tagging of a publication's relevance to different research areas; (ii) model aggregation, a collection of links to all models that seem to have rich enough evolutionary dynamics to be open-ended, with links to source code repositories, to enable easy reproducibility as well as extension of published results; (iii) analytics aggregation, a collection of analytics that are designed to apply across different modeling platforms, the only way to enable scientific cross-model comparison; and (iv) to provide a new form of interactivity for scientific communication, to enable online conversations on research threads by posting responses to published works on a much faster time-scale than the usual journal publication cycle, including subsequent questions and observations, follow up work, and links to other relevant work.

To these ends, the open-endedness forum has been divided initially into the following categories:

- Literature: a living archive of literature on open-endedness and open-ended evolution. It aims to capture all important entries in the literature (across all journals and conferences) as topics in the forum, having title, abstract, citation, as well as links to 'cited by' and 'related articles' provided by google scholar. The community then has the ability to interact with publications by using the 'reply' function of the forum.
- Workshops: articles that are explicitly related to particular Alife workshops on openended evolution. Some workshops have had special issues (e.g. of the Artificial Life Journal) publishing workshop articles, others not.
- **Models**: a library of models, with pointers to source code repositories for implementation. Also with an attempt to cross-reference to articles in the literature, but the cross-reference are at this point by no means exhaustive.
- **Measures**: a library of code for implementing measurements to detect and quantify open-endedness.

The open-endedness forum is being seeded with articles obtained from various literature searches. At this writing it has over 300 articles in its literature corpus. It currently uses the <u>discourse forum platform</u>.