Proposed System Dynamics Review Submission Categories

Draft submitted by the Publications Committee on April 18, 2023.

Research Papers (main articles) – as established

Papers of Current Practice - new

Papers of current practice demonstrate the breadth of ways in which people are applying system dynamics and its constituent tools in a variety of organizational, educational, and societal settings. They provide information about the state of practice in the field and introduce innovations and adaptations that have been employed with different degrees of success. As such, they serve as a knowledge repository of current practice which can be used by practitioners to tailor their own offerings and by researchers to evaluate the contributions of the different approaches and adaptations.

Focus

Papers of current practice are welcome in all areas where system dynamics is being applied, whether to solve specific problems or develop the problem-solving skills of others. Papers should clearly articulate the problem, opportunity, or objective of the application, fully describe what was done in a way that is useful to other practitioners, the way in which the work helped, or intended to help, in addressing the problem, and the outcome. Skill development can consist of curricular material, workshop designs, and exercise descriptions used in formal educational settings, skill development for professionals or other learning environments.

The primary audience for papers of current practice are those that are also doing or intending to do practical work. As such, papers should focus on the practical aspects of the work done and include the information necessary for readers with the requisite background to perform similar work.

Demonstration of Value

The intent of these papers is to keep people in the field apprised of what is being tried, what works, what doesn't, and why. Value in this context does not equate to success. There is much to be learned from work that failed to achieve its objectives and reflections on why, as this can help others avoid pitfalls.

To the extent that any work is repeated in different contexts or with different groups of participants it is useful to report the results in each case. Measures of success should be reported, whether these are anecdotal or formally collected data. It is recognized that much of current practice is done in settings where formal data collection and evaluation is not part of the process. As such, reporting on outcomes as observed by the authors and any other stakeholders should be included to help provide context.

In all cases reflection on the work being described is critical. Realized outcomes that are different from those expected, essentially side effects, should be brought to the readers attention. Work of this type can help in building a strong community of practice.

Nature of Citations

Material presented should clearly indicate the base of knowledge on which it was built. In many cases this may be a small number of textbooks or articles. Literature searches done as part of the work should also be included. In writing up the work it will be valuable to look for work of a similar nature that can help put the work being presented in context. In many cases this will be part of reflections, and authors should acknowledge any relevant earlier work. Novelty of approach is not a prerequisite for publication, as these articles also build the body of knowledge around applying similar techniques in different practical settings.

For papers that deal with a substantive issue in a problem domain such as transportation or public health citations that put the work in context should be included. Citations that are approachable by those without domain expertise are the most valuable.

Format Expectations

Submissions should be concise, but complete, and approximately 3,000 to 5,000 words in length.

Interventions intended to understand a dynamic phenomenon or to inform or guide the decisions of stakeholders should lay out clearly what has been done, for who, and with what effect. There is an example template for these papers, and they should include:

- Problem articulation or objective of the intervention.
- Existing approaches to dealing with the problem (momentum policies).
- A description of the process used in the work being described.
- Key artifacts (models, diagrams, pictures) used in the process that help describe what was done.
- Recommendations or insights delivered.
- The actions taken by stakeholders after the intervention contrasted with the momentum policies.
- Reflections on what worked and what didn't, any key insights about the practice and suggested revisions to the approach.
- Recommendations/suggestions for other practitioners who might be interested in applying a similar approach.

Work that is educational in nature should describe the learning objectives, what was done to achieve them, and include the content needed to replicate the work. There is an example template for these papers, and they should include:

- A description of the learning objective, target audience and any specific skills being developed.
- Sufficient grounding in previous work done in this area and discussion of how this approach extends previous work.

- Description of the educational approach used in sufficient detail that other practitioners could repeat it. Specific details or curriculum materials may be included in appendices or supplementary material.
- Outcome measures that indicate whether and how well the learning objectives were achieved. In contrast to the assessments required for a research paper, outcome measures for papers of practice may include observations or participant reactions not part of a rigorous research design.
- Reflections on what worked and what didn't, any key insights about the practice and suggested revisions to the approach.
- Recommendations/suggestions for other practitioners who might be interested in applying a similar approach.

Review Process

The review process follows the standard process for main articles but with different review criteria as described below.

Everything submitted for review should also be available in the final publication. Confidential or sensitive information not appropriate for publication should not be included in submissions. When data and descriptions have been adjusted to protect confidential information a statement to that effect should be included in the submitted material.

Review Criteria

Papers submitted in this category will be valued based on:

- **Relevance** Does the paper demonstrate a legitimate use of one or more of the tools of system dynamics and systems thinking?
- **Novelty or Valuation** Does the paper: 1) demonstrate a novel use of techniques based on application domain, target audience, or formulations; or 2) provide distinct evidence around what is effective and what is not for commonly use techniques?
- **Completeness** Does the paper (and any supporting materials) make clear what was done and when it was done (while protecting confidential information as needed)?
- **Context** Is there sufficient relevant reflection to understand the settings in which the work described could flourish and flounder?
- **Clarity** Is the paper sufficiently well organized and written to be clearly understood?
- **Grounding** Is the work clearly grounded in the body of knowledge of system dynamics with appropriate citations?

Notes and Insights – as established

Letters and Commentary – as established