14-Apr-2025

Dear Mr. Duff,

Manuscript ID SS-25-084 entitled "Empowering Communities: The CKICAS Framework for Adaptive, Real-Time Decision-Making in Sustainable Development" which you submitted to the Communications of the Association for Information Systems, has been reviewed. The comments of the reviewers are included at the bottom of this letter.

The reviewers have indicated that your manuscript is not yet ready for publication and requires major revisions. Therefore, I invite you to respond to the reviewers' comments and revise your manuscript. Please understand, however, that revision does not guarantee acceptance.

To revise your manuscript, log into https://mc.manuscriptcentral.com/cais and enter your Author Center, where you will find your manuscript title listed under "Manuscripts with Decisions." Under "Actions," click on "Create a Revision." Your manuscript number has been appended to denote a revision.

You will be unable to make your revisions on the originally submitted version of the manuscript. Instead, revise your manuscript using a word processing program and save it on your computer.

Once the revised manuscript is prepared, you can upload it and submit it through your Author Center.

When submitting your revised manuscript, please respond to the comments made by the reviewers. You can use the space provided in the online form to document any changes you make to the original manuscript. Alternatively, you can upload a response document together with your manuscript. In order to expedite the processing of the revised manuscript, please be as specific as possible in your response to the reviewers.

IMPORTANT: Your original files are available to you when you upload your revised manuscript. Please delete any redundant files before completing the submission.

Because we are trying to facilitate timely publication of manuscripts submitted to the Communications of the Association for Information Systems, your revised manuscript should be uploaded in no more than six months from today. If it is not possible for you to submit your revision in six months, please contact us, or we will withdraw your manuscript from further consideration.

Once again, thank you for submitting your manuscript to the Communications of the Association for Information Systems and I look forward to receiving your revision.

Sincerely,
Professor Denis Dennehy

Reviewers' Comments to Author:

Associate Editor
Comments to the Author:
Thank you for submitting your manuscript. The reviewers have recognized the relevance and timeliness of your work, particularly your effort to develop and present the CKICAS framework for adaptive, real-time decision-making in the context of sustainable development. The manuscript addresses an important topic that aligns well with current global concerns regarding the intersection of emerging technologies, community empowerment, and sustainability. However, both reviewers have identified significant issues that must be addressed before the manuscript can be considered for publication.

The first major concern raised is the overall length and structure of the manuscript. Reviewer 2 noted that, at 45 pages, the manuscript significantly exceeds the typical expectations for a research paper in this journal. Its current form gives the impression of a white paper or a chapter from a thesis, rather than a concise and focused academic article. To address this, you are strongly encouraged to reduce the manuscript to approximately 30 to 35 pages. This will require a focus on the core contributions of your work and the removal or streamlining of lengthy theoretical sections. If you wish to retain detailed case narratives or extensive technical content, consider placing them in an appendix or supplementary material.

Another key issue raised by Reviewer 1 relates to the clarity of your research contribution. The manuscript presents a broad and ambitious integration of existing theories and frameworks; however, it is not always clear where your own work begins and where prior literature ends. The distinction between concepts drawn from existing sources and elements that are the product of your original framework is often blurred. This makes it difficult for readers to assess the novelty and added value of the CKICAS framework. It is therefore important that you revise the manuscript to clearly identify what is new in your proposed framework, how it builds upon and diverges from existing models such as ICAS and socio-ecological systems, and where your unique insights and contributions lie.

The reviewers also highlighted the need for stronger methodological rigor and clearer validation of your approach. While the use of Action Design Research is suitable, the validation process is not clearly articulated. Reviewer 1 noted the absence of a robust evaluation, whether through case comparisons, performance metrics, or stakeholder feedback. To strengthen this aspect, you should include a dedicated validation section that

explains how the framework was tested or applied, what criteria were used to assess its success, and what outcomes were observed. Where possible, quantitative indicators or structured comparisons would enhance the credibility and practical value of your framework.

Furthermore, the technical aspects of your framework require clearer elaboration. Although the manuscript mentions the use of technologies such as AI, blockchain, and IoT, it does not provide sufficient technical detail to understand how these technologies were actually implemented within the CKICAS framework. You are advised to provide more explicit information about the technological components used, their roles within the framework, and any deployment or testing that occurred in practice. A diagram showing the technical architecture or workflow of the framework in action would also help clarify this component.

The theoretical background of the manuscript is rich and diverse, incorporating concepts such as the Black Stool, Actor-Network Theory, and Socio-Ecological Systems. However, the density and length of the theoretical exposition may overwhelm the reader and detract from the central message of the paper. You are encouraged to streamline this section by focusing only on the most essential theoretical elements, and by moving less central discussions to footnotes or supplementary sections where appropriate.

In addition to the above points, please ensure that all abbreviations (such as CKICAS, ADR, and ICAS) are clearly defined at their first appearance in the text. Figures should be reviewed for clarity, and every visual element should be referenced and explained in the main body of the paper. A careful proofreading is also recommended to reduce redundancy and enhance the overall narrative flow.

In summary, the paper shows a certain potential to make a meaningful contribution to the field of information systems, particularly regarding sustainability and community-centered governance, but cannot be accepted as it is. Substantial revisions are necessary to improve its clarity, conciseness, and analytical depth. Please note that the revision of your paper does not garantie its acceptance. We hope you will consider the reviewers' comments constructively, and we look forward to receiving a revised version of your manuscript.
Reviewer: 1

Comments to the Author
This paper presents the CKICAS Framework for Adaptive, Real-Time Decision-Making in Sustainable Development. While the topic is considerable, the research value is not quite clear.
Despite the extensive explanations of a number of theories, the sources and data used are confused with the developed elements, updates, and/or improvements. This does not clearly indicate what is the product of the ongoing research and what is used from the sources indicated. As far as the research method itself is concerned, the author goes through the developed approach in this specific case. This gives the audience a limited validation perspective, research implications are failed to be seen. There is a lack of a good explanation of the technical side of the proposed framework.

The article could be improved if the authors could provide more concise explanations of the theoretical foundations they use, separating the explanation of the methods used from their specific implementation in this study.

Validation of the proposed approach should be presented through a use case, comparison with others, and/or evaluation by adequate metrics.

Abbreviations used should be defined at their first appearance in the text.

Reviewer: 2

The research paper addresses a highly relevant and timely topic. In an era defined by volatility, uncertainty, complexity, and ambiguity (VUCA)—exacerbated by recent global events such as the COVID-19 pandemic, shifting geopolitical dynamics, and economic trade wars and tariffs, this study provides a meaningful contribution. The topic is indeed aligned with current global challenges, and the development of frameworks like CKICAS is critical for organizational and systems resilience in such a context. Further the research incorporates emergent technologies which is pertinent in current context. However, following are some points the author needs to work to enhance the paper's structure, presentation, and methodological articulation require attention. Abstract • Generally, we avoid including citations in the abstract. It should offer a succinct overview of the research problem, methodology, key findings, and implications, without referencing external sources. Introduction • The introduction currently uses bullet points to present key ideas. In academic writing, it is preferable to articulate these as structured paragraphs to maintain flow and coherence. • The "Research Paper Contribution" section should also be integrated into the narrative form and clearly distinguish what the study adds to existing literature. • The Introduction section ends with a paragraph that describes what readers can expect in the following sections of the research paper. Hence it is essential to briefly describe each section in a few lines. Theoretical Development • Similar to the introduction, this section uses bullet points to outline advancements in the CKICAS framework. These should be synthesized into well-developed paragraphs, providing analytical context and building a coherent theoretical foundation. • Expanding on the theoretical underpinnings with relevant literature support could help solidify the academic rigor of the section. • Section 2.5 – CKICAS Development During COVID-19: A Case Study in Emergent Methodology Specific Community – I think this section would be more appropriately placed under the Research Methodology section. • Similarly this section needs to be in RM section. Before introducing the case study directly, the reader should be guided through the chosen methodology. It is important to explain: o Why the Action Design Research (ADR) approach was suitable. o How it integrates with or differs from digital ethnography and case study methods? o A brief explanation of ADR would be helpful for readers unfamiliar with the method, especially in comparison to traditional qualitative case study designs. • Consider clarifying the rationale for selecting these methods, including any epistemological or practical reasons. Research Methodology • Iterations 1 through 4 of the framework development process might benefit from tabular representation. A visual structure can enhance reader understanding and highlight the evolution of the CKICAS model. • Please clarify whether any software tools, coding techniques, or formal text analysis methods were used to derive the dimensions of the framework. • The methodology section mentions multiple qualitative approaches; further

explanation is needed to understand the how these qual methods fit into the scope of this section and align with ADR methodology. Results / Model Overview • The continued use of bulleted characteristics (e.g., "Emergent System Characteristics," "Optimal Performance and Outcomes," "Technical Implementation") makes the presentation resemble that of a white paper or industry report rather than a scholarly article. • Converting these into structured paragraphs supported by discussion would increase academic depth and requirements. • Consider cross-referencing relevant literature that supports the characteristics or outcomes proposed in your framework. General Observations 1. Avoid citations in the abstract. 2. The current length of the manuscript—48 pages—is significantly beyond standard expectations. 3. This section is from the CAIS journal instructions "Unless there is a strong justification (e.g., substantial empirical data or multiple studies), most academic outlets, such as Communications of the Association for Information Systems (CAIS), expect papers to be within 15,000 words or approximately 20–22 pages." o Please refer to the CAIS formatting guidelines for specific requirements. 4. To enhance the theoretical positioning, the author may consider referencing and aligning with established papers or frameworks in adjacent research fields. Suggested Readings To enhance the theoretical foundation and structure, you might find the following papers useful: i. ii. iii. iv. Bendoly, E., & Oliva, R. (2025). Meaningful theoretical pathways for research contributions. Journal of Operations Management https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5097032 (forthcoming). De Villiers, M. R. (2005, July). Three approaches as pillars for interpretive information systems research: development research, action research and grounded theory. In Proceedings of the 2005 annual research conference of the South African institute of computer scientists and information technologists on IT research in developing countries (pp. 142-151). Lau, F. (1999). Toward a framework for action research in information systems studies. Information Technology & People, 12(2), 148-176. https://www.emerald.com/insight/content/doi/10.1108/09593849910267206/f ull/pdf?casa_token=QcMTNCOJ_o4AAAAA:oR4f410gmrLA9szREswEdHDNUrU7O BQA2dFT_m6A0jmsTt1ASkGOGsNad3IhkIpFmyIWGhu6zfMVVXx 6xfLNMKQCeyf91xpCqEZVVNi2dBKCABf0Wc2 Pettigrew, K. E., Fidel, R., & Bruce, H. (2001). Conceptual frameworks in information behavior. Annual review of information science and technology (ARIST), 35(43-78). Conclusion The paper tackles an important and pressing issue and introduces an original framework. With revisions focused on academic formatting, methodological clarity, and restructuring of content presentation, the paper can meet the CAIS requirements and make a strong contribution to the literature