

Carla Antonini

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Enviado el: viernes, 14 de mayo de 2021 6:30
Para: Carla Antonini
Asunto: (Accounting Forum) A revise decision has been made on your submission
Datos adjuntos: Review_A_Circularity_Accounting_Model_0521.pdf

CC: andrea.romi@ttu.edu

May 14, 2021

Ref.: Ms. No. RACC-2021-0034

A circularity accounting model: neural networks and movement building for the operationalization of circular economy.

Accounting Forum

Dear Dr. Antonini,

On behalf of the editorial team, thank you for submitting your manuscript to the Special Issue on Accounting for the Circular Economy at Accounting Forum. Your manuscript has been reviewed by two experienced researchers. One reviewer is significantly involved in sustainability accounting research and the other has expertise in neural networks. One of the members of the guest editor team also read the manuscript before reading the reviews to form her own independent opinion, and discussed it with the other Co-Guest-Editors.

The reviewers see potential in your study and appreciate the unique perspective for extending the accounting literature with respect to the circular economy. We believe both reviews, while very different in style, are fairly consistent, and will be useful and insightful about the ways to develop your manuscript toward a publishable state. Given the potential that we and both reviewers see in your paper, we have decided to invite you to revise and resubmit your manuscript. We share the reviewers' interest in your work, but we also share their concerns and assessment of your manuscript. Therefore, we anticipate that a successful revision will entail considerable effort on your part.

As you will see, both reviewers invite you to reflect on and revise the way you discuss many elements in the manuscript. Reviewer 1 raises concern about the clarity of the contribution; Reviewer 2 supports this assessment by describing several areas where clarification is needed. Importantly, this reviewer calls for elaboration on CAM as circular, which is central to your paper. Reviewer 1 also suggests improving section 5 concerning the operationalization of CAM. Additionally, both reviewers touch on Figure 2 and assert it is currently ambiguous and difficult to understand. Altogether, we share the reviewers' call for clarification throughout the manuscript. Resolving ambiguities and the lack of details will be beneficial to the manuscript's storyline and argumentation.

Reviewer 2 shares some concern about the lack of a sufficiently strong connection between CAM and movement building, struggling with the suggestion that change in society is through individual, consumer-based action. While one might advance that corporations are the central issue and asking consumers to be the sole solution is not fair, there are also calls for this very thing. Fairness notwithstanding, spending some time and energy discussing the individual action as a form of accumulated agency might be a path forward (e.g., Latour 2017 – Facing Gaia – Eight lectures on the new climate regime; Rodrique and Romi 2021 – online Critical Perspectives on Accounting). Regardless of the direction you take here, we see value in strengthening the link between movement building and CAM.

While we have summarized our comments and suggestions along with those of the reviewers, we invite you to consider the above in complement to the full review letters. We are aware of the challenging nature of the required

revision, but we hope that you will devote the necessary time and energies to revise the paper in light of the first-round reviewers' comments as we see potential in your paper to contribute to the discussions of the Special Issue.

If you choose to revise and resubmit this manuscript, please carefully address these comments by:

a) outlining each change made (point by point) as raised in the reviewer comments

AND/OR

b) providing a suitable rebuttal to each reviewer comment not addressed.

Your revision is due by Nov 10, 2021.

To submit a revision, go to <https://www.editorialmanager.com/racc/> and log in as an Author. You will see a menu item called 'Submission Needing Revision'. You will find your submission record there.

We look forward to receiving your revision.

Andrea Romi, Diane-Laure Arjaliès, and Michelle Rodrigue Guest Editors

Carol Tilt
Editor
Accounting Forum

Comments from the Reviewers:

Reviewer #1:

Paper title: A circularity accounting model: neural networks and movement building for the operationalization of circular economy.

Manuscript number: RACC-2021-0034

This paper proposed the development of a circularity accounting model, as it discusses that circular economy cannot be operationalized applying current dominant managerial paradigms and traditional accounting in financial terms. It also reflects on how accounting develops a pivotal role in operationalization of a circular economy. Overall, this paper is well-written and the idea was interesting. However, ...

A few observations:

1. Statements about the contributions of the paper are not clear enough. The author should list the contributions of the paper in detail in the Introduction.
2. This paper uses Figure 2 to describe the Model Architecture. It is difficult to understand the innovativeness of those strategies. Some detailed explanations including the purpose of proposing the Model Architecture in addition to its advantages compared with existing architectures, and its detailed steps, should be provided.
3. The conclusions are repetitive and insubstantial. Conclusions must be focused on the contribution and results of the work. Future research work must be sufficiently widely argued. Please open a real window for future work in the conclusion section. The authors need to clearly provide 2-3 solid future research directions in the Conclusion section.
4. There are grammatical errors that need to be corrected.
5. Although the approach proposed in the paper is interesting, a revision of the manuscript is recommended. In particular, to improve section 5 (CAM for the operationalization of CE) and the overall style of the paper.

Reviewer #2:

This is a challenging paper which has two key ideas that readers of this journal would find novel and demanding. While the paper's stated purpose (see abstract) evokes familiar themes concerning the difficulties in existing management and practices when it comes to carbon emissions, the two central ideas - the use of movement building and a circularity accounting model (CAM) based on neural networks - will pose difficulties and challenges to readers.

Challenging readers and extending the perspectives of the discipline is of course something to be welcomed. However, the paper in its current state is a long way from being of publishable standard and the authors have some fundamental decisions to make about how to advance the manuscript. I will elaborate my concerns below

I am not an expert on neural networks so my comments here concern trying to understand the CAM as it is currently presented - I think this is a legitimate stance as I suspect most readers of this journal will be in the same position. Figure 2, sections 4.2 and 4.3, appear crucial to understanding the CAM and while there is some explanation in the text (pp. 12-13) it is too brief. The Yakult example in section 4.3 requires more detailed explanation. A clear working through of the numbers in Figure 2 to explain where they have all come from and how the value of - 881.123 is derived, would help. Also a clear statement of whether these are real or theoretical values is needed.

A nagging question throughout the paper was whether the CAM is actually circular. I know you represent it as such in Figure 3 with points A and C touching/overlapping. Yet, the paper often refers to the supply-disposal chains, such chains could of course be linear, as they are mainly in present economic activity. You appear to try to address this concern in footnote 1 (p. 3) but it is rather cryptic - a clearer elaboration in the body of the paper is advised.

My main concerns cover your use/interpretation of movement building and its relationship to the CAM. There appears to be no intrinsic link between CAM and movement building; in part that is recognised in the two separate contributions. If this interpretation is incorrect I advise making clear the necessary interdependency of each.

Before I review the authors' interpretation of movement building, there is a more fundamental issue that needs addressing. It is very welcome to see the authors attempting an exploration of how societal change may come about (with CAM as one part of that), rather than just asserting that greater, more appropriate and accurate disclosure is a good thing in, and of, itself. The problem is that the authors appear to subscribe to the view that the way we change society is through individual, consumer-based actions (e.g. on p. 15, "In this sense, it aims to empower consumers and other stakeholders to be part of the information process and not only passive users", or on p. 17, "... the estimator is an open tool that empowers consumers with the capability of not only being passive receivers of information but also to become providers of information for better decision-making").

Such a view of societal change seems at odds with their invocation of movement building which as Cabaj & Weaver (2016) locate is a version of "Collective Impact 3.0: An Evolving Framework for Community Change". So the emphasis is on collective actions by communities. This inconsistency needs to be addressed and either amended or explained, so that the reader is clear about how the authors envisage social change occurring. There is also the related issue about placing the emphasis on consumers to change behaviour, thereby bypassing the behaviour of corporations, especially when there is evidence of the impact corporations are having on global emissions - for example, see the CDP "Carbon Majors Report" (2017) or "Carbon Majors: Accounting for carbon and methane emissions 1854--2010 Methods & Results Report" by Richard Heede (2019) or Ekwurzel, B., Boneham, J., Dalton, M.W. et al. The rise in global atmospheric CO₂, surface temperature, and sea level from emissions traced to major carbon producers. *Climatic Change* 144, 579-590 (2017). <https://doi.org/10.1007/s10584-017-1978-0> The point is, if the producers are the problem then getting the consumers to change won't stop climate change emissions.

With this clarification in mind, section 2.2 currently reads in an extremely abstract manner, shorn of almost any social context. There is no build-up to the exposition of movement building (for example an explanation of its theoretical roots or previous uses). There also seems to be some conflation of ideas about movement building - for example Spicer et al. (2016) and Cabaj & Weaver (2016) are two key references in the section but they are coming from different places. Spicer et al. (2016) reference the extant social movements literature (you could criticise them for not engaging further with that literature). Whereas for Cabaj & Weaver (2016) it is not the social movement literature but an extension of the social innovation literature.

It may be possible to overcome this gap but it requires a careful exposition of the roots and links between the different sources of literature in section 2.2. At the moment the impression is left that just because they both use the term "movement building" they are talking about the same thing.

Other points:

1. P. 2 - "real flow" could do with some clarification;
2. P. 6 - "In order to advance in the development of circular economy ..." the "in" is not needed;
3. P. 6 - the final sentence needs re-writing;
4. P. 7 - third line "being needed" is not needed;
5. P. 8 and Section 3 - you refer on p. 8 to the challenges that machine and non-human agency can/will create, yet this is not explained until later in section 3. So consider moving section earlier;
6. Section 3 - you appear to be arguing that it is machine and non-human agency that is the cause of increasing carbon emissions. If this is your position, then you need a much more careful and detailed exposition. For example, in figure 1, is this a theoretical model or based on actual data? The timescales on the Y-axis seem inappropriate, is this really a matter of months? More fundamentally the common understanding is that we are reaching the planet's resource limits because of capitalism's inbuilt need for 3% compound annual growth, not the use of machines;
7. P. 10 - bottom line before the Roman numerals you need to include commas or semi-colons, not full stops;
8. P.10, Fn. 2 - should that read "... through software..."? Similar issue at the start of section 4.1

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