This paper introduces a data-driven parameter discovery methodology to provide analysis of the families and homes using over a hundred thousand research papers and nearly a million tweets. A methodology using deep learning, natural language processing (NLP), and big data analytics methods were applied to automatically discover grouped parameters. This is an interesting paper as it has the potential to provide the knowledge and parameters to develop a holistic understanding of matters related to families and homes. Here are some suggestions that might be helpful for the authors to improve their work:

1. What does figure 1 serve in this paper? Explanation for figure 1 might be missing.
2. Fig. 3 and 4 are not histograms. A histogram should have range value as x-axis and frequency as y-axis.
3. The c-TF-IDF, which is defined in equation (1), is essential to understand the following analysis. Therefore, more explanation might be needed for the explanation.
4. It's not clear to me how each step, from key words to parameters, and from parameters to Macro are generated. A flowchart showing the entire process might be helpful. For example, how do you decide the keywords under one parameter? And how do you decide what parameters should be in on Macro. You might mention it somewhere in the paper but it would be helpful if you have the flowchart to guide the readers.