

This paper deals with an interesting perspective on the use of text analysis. Hereafter, I gave my detailed comments and I will then conclude this report with a general comment.

In the abstract: The authors explained they plan to use “some econophysics methodology, the theory of turbulence” – I must confess I did not understand in what sense this paper dealt with econophysics. Authors must better define what they mean by econophysics because this field is an application of models coming from physics to economics. Dealing with a statistical analysis of words is not a perspective coming from physics... in the same vein, I did not understand why authors referred to the theory of turbulence (which can potentially refer to many stuff in physics). I will detail this point at the end of this report.

p.2: The authors wrote that one of their “first hypothesis” is that “economic texts are literature” – they did not define clearly what they mean by literature (in a sense, all written works – novels, scientific articles etc – can be seen as literature). And moreover, what does this first assumption imply ???

p.3: Authors talked about “mathematical structures”... that could be nice to justify the paper by explaining what these mathematical structures can teach us. Moreover, I am not sure that the concept of “turbulence” (in a physical sense) can be used to characterize his emotional instability – it looks like Aragon and al (2006) who made a confusion between mathematical\statistical turbulence which could be associated with a physical analysis of painting and a metaphorical sense of turbulence associated with emotions... in conclusion, I am not sure the concept of turbulence is useful for that paragraph and even for the paper.

p.4: The authors wrote that “from the appearance of some words in those texts ... we may draw conclusion regarding the author’s perception of time and its meaning in terms of the analytical study” – I don’t understand the second part of the sentence (in italics) and I don’t if the authors are talking about the perception of the “physical time” or the “way of punctuating the text” which rather refers to the time in text and not to the “physical time”.

p.5: The authors talked about the “methodology of turbulence”... what do they mean??? It is rather vague. It is like writing “the methodology of value” or the “methodology of time”... we have a lot of way to deal with value, time or turbulence...

p.5: That could be valuable to give more justification about the choice of the words. Why “utility, value, labour and capital” ? The authors wrote that these words are important for Jevons but not necessary for other authors. Implicitly, authors assumed that the use of these words can teach us something about Jevons. Marx and Smith... I would maybe say yes for one author (for who these words are important) but no sure for the other one (except the fact to find that they don’t use or less these words). In the same vein, what about the use of synonyms or association of words referring to these key words (value, utility, labour and capital) ?

P.6: The authors associated the concept of scale to the distance between pages. Are all works comparable? In what extent 1 page in Jevons’ work can be compared with 1 page in Marx’s work? Why can we (or not) do that? Moreover, in physics, the notion of scale required the statistical stability of data. In other words, scaling properties can be found and justified only if data share a same statistical framework i.e. data at different level of analysis (scale) can be related by a linear combination... What about the stability of data here??

p.7: I don't understand how the sentence "a turbulent regime characterized by intermittency" can make sense in terms of texts analysis... what would be the meaning of a "turbulent text"?

p.9-14: all tables should be placed in appendix.

p.15: Ok for the statistics related to texts... Are the number of pages really comparable? All these books do not have the same format etc... that point could influence the statistical analysis.

p.16: The authors wrote "...which may result from a certain state of mind of the author". What is the definition of "state of mind"? it looks like authors tried to find a hidden idea behind the words... why should we consider that? Starting from this page, I had the feeling the paper evolved towards a more psycho-analysis dimension... what about the justification of that?

p.17: that psycho-analysis dimension is clearly mentioned when authors talked about "an image embedded in the authors' psych". Why do the authors think that a statistical analysis of words can capture an authors' psyche? What about the justification of that perspective?

p.17-18: I am not sure that the word "persistent" is the most appropriate to characterize the number of time an author uses a word...

p.19: The authors talked about "information" and of "jumps in information"... I did not understand the meaning of that. That could be nice to define in more clear way what they mean by "information" and how the concept of "jump" can be applied to that.

General comment:

At the beginning, we have the feeling that authors want to offer a statistical analysis of texts written by key economists by focusing on specific concepts. Ok; if authors can justify the choice of concepts and the differences in terms of publication format, that approach could be interesting. Authors associated that methodology with turbulence and econophysics – While I think that association with econophysics is not justified, the association with turbulence is a little bit quick and should be more detailed.

Starting from the p.16, I had the feeling switched into a more psycho-analysis dimension – authors mentioned that in the conclusion when they associated their paper with neuropsychology... (I began my reading with econophysics and turbulence theory but I finished my reading with neuropsychology) – I must confess I am a little bit lost about the objective of this paper... moreover, whatever the justification the authors want to develop, I think they should develop in more details why they think it is valuable to make connection with turbulence or psycho-analysis.

How tools dealing with the number of words can capture the meaning of a text? What about metaphors or synonyms? I am not convinced that the thinking of authors can be reduced to the number of words they use! – what about translation or the fact the text was not written in the same language or that the author did not use his/her mother tongue (implying less vocabulary and then a potential over-estimation of some concepts associated with often used words)...