Reviewer’s report

Title: The medical diagnosis as a linguistic game

Version: 1 Date: 19 Dec 2016

Reviewer: John Skelton

Reviewer's report:

This is, I believe, a resubmission. It is an intriguing paper, on an important area, but will in my view need further, quite extensive, work.

There is one fundamental difficulty: the lack of clarity. As it stands, it is hard to imagine anyone reading it, let alone understanding it. Part of the difficulty may be linguistic (I take it the authors are native German speakers), part may be cultural (the conventions of publishing for a German audience vs an English-reading audience), part may be uncertainty about who the true audience is for this paper.

So, it is simply unnecessarily complicated on a line-by-line basis. Here is an alternative for the first few sentences, for example:

"Medicine involves doctors and patients discussing risk and reaching complex decisions together about treatment options, amongst other things. Yet it is known that diagnostic errors occur, with a frequency (depending on how terms are defined) ranging between 2.5% and 20%. Most errors have only moderate negative consequences, but some do not. It is claimed that modern computing technology can reduce errors...." (This is less than half the length of the original).

Secondly, and much more importantly, although the whole paper desperately needs clear, comprehensible examples, there are none. Eight things are labelled "Examples" but it is not at clear what they are exemplifying. Apparently, in some cases, that the search terms may be in English or a translation-equivalent in German. This hardly needs spelling out at such length. Mention is made of a "Case 1" at one stage, but this is not followed through. There is mention also of a "Supplement", but this seems to relate to Figs 1-3, not otherwise referred to as a supplement, and so on.
Above all in this context, the impenetrable nature of the text makes the claim to a "holistic" approach sound hollow. It is by no means clear who is going to be using this system, when and how, in other words. My suggestions for "examples", or "cases", would be to rework the whole paper, beginning with the patient. "Let us imagine a lady of 55 has presented with a breast lump which she describes as.....On examination, the findings are....". In other words, show us the system in action: show the reader why the doctor needs something like this.

Thirdly, although the writers have a much better command of English than I do of German, there are numerous language problems.

Note that "+++" is defined as "50% to 100%", and "++" as "10% to 50%". This is the kind of minor slip which undermines confidence. Presumably "10-49.9%", or something?

I am not sure, at this stage, that I can take this review much further. It will remain, I think, fairly opaque until these issues are addressed.

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Yes

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