

# Review of: "Digitalization of research: do ICT improve scientific production in developing countries?"

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Paper: "Digitalization of research: does ICT improve scientific production in developing countries?"

1. My first comment is that I am not a specialist in this field, but I read the paper and tried to understand it.
2. The second comment is that I believe that ICT improves scientific production in any country, under development or developed, but it would be interesting to have proof of this. This paper tries to prove it, but still, there are some details to be clarified.
3. The paper uses many acronyms like ICT, WDI, ICRS, ICRG, WGI, etc., without explanation, which should be avoided. Please include all definitions of acronyms at least once they appear.
4. On page 4, there is one equation that I suppose should be numbered (1) as the next equation has the number (2). All the parameters in these equations should have their meanings explained, and all the parameters should have explained how they may be collected. This is the same with equation (2).
5. The sentence: "In relation to democracy and corruption, the indicators used in the literature are not unanimous". If they are not unanimous, how can we believe that the conclusions of the study are correct? Is there any hint that the conclusions are correct?
6. In the results session, I could not understand many details in the Tables. For instance, in Table 1, we have column 1 with variables, which I do not have a clear idea of what they mean. What is `ln_gdp`? Internet? And so on. What is the meaning of Internet equal to 0.0407? What does this number mean? All the variables should be explained to make sense. I suppose "`healt_exp`" means health expenditure, but the value -0.000855 is a mystery. What does it mean? Table 1 and all the other tables should be explained in detail to make clear what is going to be concluded.
7. The sentence "It can be explained by the fact that an increase in a country's wealth leads to a natural increase in research funding." This sentence seems like a dream of researchers all over the world, but I am not sure this is always true.
8. On page 9, the last two paragraphs are repeated. The authors should read the paper and erase the duplication.
9. The sentence "suddenly drop out when they compare the welfare level of those who are well educated with those who are not but enriched by corruption" seems to be true, but how do we find precisely who is enriched by corruption? Is there a corruption declaration? Or is there a way to find who is corrupt? In developing countries, besides corruption, the high level of bureaucracy and low level of trust make the research system extremely ineffective. This inefficiency would be more precisely measured than the corruption level, which is important, but I am not sure if the measurement is precise.
10. The sentence "This implies that corruption reduces scientific production in African countries more than in the other

developing countries considered.” Is this true because the percentage of corruption is higher in these countries or because its effect is higher?

11. The last sentence in the conclusions says: “They should continue with the democratization of these countries.” It is strange that there is no specific comment on education. Can only democracy help scientific production? Should we think about democratizing first and educating next, or educating first and democratizing next? Or should both things be done in parallel?

12. My final comment is that the analyzed subject is interesting, but without clarifying the doubts presented above, the paper is not ready to be used as a trusted reference.