Reviewer’s report

Title: Nationwide citizen access to their health data: Analysing and comparing experiences in Denmark, Estonia and Australia

Version: 0 Date: 30 Jan 2017

Reviewer: Ivan Olier

Reviewer's report:

This manuscript presents analyses and comparisons of experiences of nationwide citizen access to their health data in Denmark, Estonia and Australia. To carry out the analyses, the authors gathered data on the type and level of access citizens had to their own health data from public sources. The manuscript includes a results section which describes the three systems regarding to several aspects such as structures, system architectures, data sources, and security, privacy and user support approaches. The authors also discussed similarities and differences between them in the discussion section. The manuscript ends with a conclusions section which wraps up the main findings of the study.

Overall, I consider the manuscript a relevant one. Analyses presented here may provide important clues and help for quicker implementation of similar systems in other countries. I also understand that it could be challenging to set a sort of standard criteria to make fair comparisons between the systems. I consider the range selected by the authors as a reasonable set, although I must accept I have limited experience on this aspect.

Below, I list several comments which I believe will improve the manuscript. I indicate in brackets the line numbers, when applies.

1. (91-93) The author did not explain or clearly justify why these countries were selected. Is it because no other country offer nationwide citizen access to their health records? Or data from other countries were not easy to collect or not available? I would have expected a major number of countries to be included, but also can accept the ones analysed if there were limitations to do so. Also, if no other country had something similar (a nationwide access…) could you elucidate (if possible) reasons for this?

2. (107-108) Could the authors support the claim that Denmark, Estonia and Australia are leading in citizen access to their health data?

3. I could not find the meaning of "PHR" in the manuscript (I assume it stands for "personal health record")(?)
4. I found difficult to follow the results section, frequently confusing me the reasons for including some results. Perhaps it is because several aspects do not have links to the methods section. I understand the authors adopted Donabedian approach to describe the three systems. However, I would have expected to see in the method section the criteria the authors used to assess the three systems, before it is talked about them in the results section. For instance, Table 1 presents functionalities criteria but there was no mention about them in methods section. It would have been helpful if methods section included all methods used to produce the results.

5. In Table 1: How these functionalities were defined? These functionalities are the ones we should expect for this kind of systems? What do empty cells represent?

6. In the subsection "Summary comparison of system architecture and data sources" and Figure 2, can the authors provide the references they used to extract the architectures? Again, if the description of such architectures is considered as part of the contributions, I would have expected details on the criteria used to map the architectures in the methods section.

7. (358) broken reference.

8. (478) It should be Table 2. Like point 5. How these issues were selected?

9. (481-505) and Figure 3: I believe the comparison of citizen adoption and use is tricky, as there are differences in the way the citizens are enrolled within the three countries. It may be the case that many citizens just logged on the system to opt out or vice versa, which may bias adoption rates, and may make them incomparable. Could the authors discuss this in the manuscript?

10. Figure 4: The way the data is presented is inappropriate. Should the authors consider a different way to present the results (e.g. facet plots)?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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