#### **Reviewer Report**

Title: A scalable software solution for anonymizing high-dimensional biomedical data

**Version: Original Submission Date:** 4/21/2021

**Reviewer name: Hyung Joon JOO** 

#### **Reviewer Comments to Author:**

This is a very interesting and valuable result. However, there are several concerns.

1. There is not enough convincing explanation for the reason for applying genetic algorithm. There are several methods for optimization including simulated annealing.

Moreover, as the author mentioned, there was already an attempt to apply genetic algorithm for data anonymization (Wan et al.). To promote the novelty of the presenting study, it needs to provide more robust explanation for selecting genetic algorithm for this project.

- 2. Genetic algorithm is little bit complicate to handle. Author showed the detailed parameter setting for the present study. It is necessary to provide a reference as well as scientific reasons for setting parameters. In addition, why do the authors use 'triangle pattern' in genetic algorithm for this research?
- 3. Authors introduced several approaches (#1. top-down #2. bottom-up #3. genetic algorithm). Genetic algorithm showed better performance for the complex and high dimensional datasets but lower performance for the low dimensional datasets. If the authors propose some guidance to select the appropriate algorithm for data anonymization, it would be very helpful for general users of ARX solution.

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