Reviewer’s report

Title: Automatic Glioma Segmentation Based on Adaptive Superpixel

Version: 0 Date: 22 May 2019

Reviewer: Huazhu Fu

Reviewer's report:

In this paper, a glioma detection and segmentation method is proposed based on adaptive superpixel. However, the novelty of the proposed method is too weak, and the compared methods are outdated.

1. I don't recognize that the ASLIC0 is a contribution, and there is no substantial improvement over the SLIC. Moreover, can ASLIC0 be superior to other superpixel segmentation algorithms? For example, Superpixel segmentation based on square-wise asymmetric segmentation and structural approximation, IEEE Transactions on Multimedia, 2019. This method is also used in medical image processing.

2. SVM is a commonly used method, thus, I don't recognize the second contribution. Where is your novelty? Compared with the deep learning based method, what is your advantage in performance?

3. In experiments, the compared methods are outdated, mainly including papers published ten years ago. It is difficult to prove that the proposed algorithm can achieve state-of-the-art performance. Moreover, can you achieve performance that is comparable or better than deep learning methods?

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.

Yes

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 recommend additional statistical review

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

Needs some language corrections before being published

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