

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Gastroenterology

**Manuscript NO:** 65150

**Title:** Artificial intelligence for hepatitis evaluation

**Reviewer's code:** 05738094

**Position:** Peer Reviewer

**Academic degree:** MSc

**Professional title:** Academic Research

**Reviewer's Country/Territory:** Italy

**Author's Country/Territory:** China

**Manuscript submission date:** 2021-03-01

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2021-03-04 09:27

**Reviewer performed review:** 2021-03-04 18:58

**Review time:** 9 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## **SPECIFIC COMMENTS TO AUTHORS**

Generally speaking, the present review is well written, it covers a very interesting topic and it adequately reviews the existing literature. However, it lacks some important information and require some adjustments, thus my recommendation is “Minor Review”. Please carefully address the comments below, including in the text some missing information and answering the following concerns.

1- I strongly suggest to include in the introduction section a very small description of the main differences between classic machine learning (shallow models) and deep learning, e.g. which is the input in the two cases? which are the main differences in the workflow? Which are the benefits?

2- Please include a critical discussion of the limitation of the reviewed studies and propose some future perspectives

3- Please include in Table 1 and Table 2 the information about the sample size and the type (and size, if necessary) of the input to the AI models.

4- For each study, please include in the text the population size and a brief description of the employed features, which is missing in some points, e.g. section 1 – predicting the incidence of hepatitis

5- Minors:

a. Please carefully review the acronyms and make sure to define the first time they are used. The following definitions are missing: BP (back-propagation), support vector machine (SVM), long short-term memory (LSTM) network, multilayer mamdani fuzzy inference system (ADHB-ML-MFIS), radial basis function (RBF), recursive feature elimination (RFE), area under the curve (AUC), area under the receiver operating curve (AUROC), region of interest (ROI), least absolute shrinkage and selection operator (LASSO).

b. Please revise the following sentence: “Computer science and technology, such as cloud computing, big data, make radiomics and deep learning are hot topics in the field of medical imaging diagnosis” (Hepatitis evaluation based on radiology)

## RE-REVIEW REPORT OF REVISED MANUSCRIPT

**Name of journal:** World Journal of Gastroenterology

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**Academic degree:** MSc

**Professional title:** Academic Research

**Reviewer's Country/Territory:** Italy

**Author's Country/Territory:** China

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**Reviewer chosen by:** Han Zhang (Online Science Editor)

**Reviewer accepted review:** 2021-07-16 06:17

**Reviewer performed review:** 2021-07-16 06:30

**Review time:** 1 Hour

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## SPECIFIC COMMENTS TO AUTHORS

The authors have answered all the reviewer comments, and included in the text the



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missing information. The paper has gained value and can be accepted in the present form.