

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 62695

Title: Artificial Intelligence in Gastroenterology and Hepatology: Status and Challenges

Reviewer's code: 05224959

Position: Editorial Board

Academic degree: PhD

Professional title: Professor

Reviewer's Country/Territory: Spain

Author's Country/Territory: China

Manuscript submission date: 2021-01-15

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-01-21 18:40

Reviewer performed review: 2021-01-26 20:23

Review time: 5 Days and 1 Hour

Scientific quality	<input checked="" type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<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
Conclusion	<input checked="" type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	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 are dealing with the Artificial Intelligence in gastroenterology and hepatology. In this paper, Cao et al. conduct a comprehensive review of the AI applications in endoscopy, radiology, pathology for accurate diagnosis, treatment, and prognosis. In addition, the authors introduce AI technologies for data processing and the definition, learning and validation of AI models. Finally, they discuss the current limitations and future considerations of AI applications in the areas of gastroenterology and hepatology. The authors cite Python as an appropriate language for data analysis and AI applications. It would be interesting to cite some other platforms/languages, such as R or Matlab that offer a successful environment for AI. I found the review work with the tables to be very appropriate. It is a good selection of key studies in literature. The work is complete and up to date, however, I would like to recommend some references from 2021: - Chen, H., & Sung, J. J. (2021). Potentials of AI in medical image analysis in Gastroenterology and Hepatology. *Journal of Gastroenterology and Hepatology*. - Björnsson, E. S., & Kalaitzakis, E. (2021). Recent advances in the treatment of primary sclerosing cholangitis: For Expert Review of Gastroenterology & Hepatology. *Expert Review of Gastroenterology & Hepatology*. - Zheng, J., Gao, Z., Pu, L., He, M., Fan, J., Wang, S., ... & He, L. (2021). Analysis of Tumor Disease Patterns Based on Medical Big Data. *Journal of Medical Imaging and Health Informatics*, 11(2), 478-486. - Yu, H., Singh, R., Shin, S. H., & Ho, K. Y. (2021). Artificial intelligence in upper GI endoscopy - current status, challenges and future promise. *Journal of Gastroenterology and Hepatology*, 36(1), 20-24. - Mori, Y., Neumann, H., Misawa, M., Kudo, S. E., & Bretthauer, M. (2021). Artificial intelligence in colonoscopy: Now on the market. What's next?. *Journal of Gastroenterology and Hepatology*. - Akshintala, V. S., & Khashab, M. A. (2021). Artificial intelligence in pancreaticobiliary endoscopy. *Journal of Gastroenterology and Hepatology*, 36(1), 25-30. - Wu, J., Chen, J., & Cai, J. (2021).

Application of Artificial Intelligence in Gastrointestinal Endoscopy. Journal of Clinical Gastroenterology, 55(2), 110-120. The manuscript is very interesting. The motivation and justification are appropriate. The paper is well written in correct English. Now I include some typographical errors: For (several times): opochs read: epochs In refs. 7 and 8, For: leee read: IEEE