PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 58662

Title: Evolving role of artificial intelligence in gastrointestinal endoscopy

Reviewer's code: 02446101

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Doctor, Professor

Reviewer's Country/Territory: China

Author's Country/Territory: United States

Manuscript submission date: 2020-08-01

Reviewer chosen by: Jia-Ping Yan

Reviewer accepted review: 2020-08-31 12:54

Reviewer performed review: 2020-08-31 13:24

Review time: 1 Hour

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [Y] Minor revision [ ] Major revision [ ] Rejection
Re-review	[ ] Yes [Y] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

In this review, the authors discuss AI and associated various technological terminologies, evolving role in gastrointestinal endoscopy, and future possibilities. It's an interesting review. This manuscript is in the scope of the journal. It could provide the comprehensive and systemic report to the readers. However, there're still several issues which should be addressed. 1. Some tables should be added to make the manuscript clearer. 2. The section of "Terminology" should be deleted or reduced. So, minor revision should be recommended.

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 58662

Title: Evolving role of artificial intelligence in gastrointestinal endoscopy

Reviewer's code: 02444931

Position: Editorial Board

Academic degree: PhD

Professional title: Assistant Professor, Research Scientist, Senior Lecturer

Reviewer's Country/Territory: China

Author's Country/Territory: United States

Manuscript submission date: 2020-08-01

Reviewer chosen by: Jia-Ping Yan

Reviewer accepted review: 2020-08-31 09:01

Reviewer performed review: 2020-09-01 06:17

Review time: 21 Hours

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [Y] Minor revision [ ] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

1、In this review, the authors discuss the applications and future possibilitiesof AI and other technological terminologies evolving role in gastrointestinal endoscopy.While this is an interesting topic, the correlation between AI and other associated technological terms has not been fully demonstrated. 2、The English search terms of "artificial intelligence and endoscopy, computer-aided diagnosis and endoscopy, computer-aided detection, CAD, neural networks, and endoscopy" for this review may not be comprehensive enough. It would be great to also include words such as machine learning and gastric cancer, so that the literature can be more comprehensive investigation. 3、A problem is overlooked in the limitations of AIin gastrointestinal endoscopy: various types of digestive tract lesion images have obvious individual differences, which are more difficult to label than general medical data. 4、The manuscript lacks direct and clear tables or figures to show the author's views more vividly. 5、The description order of various AI systems in different applications is a bit messy, and there is no reasonable logical order for each subtitle part. 6、The discussion is not deep enough. 7、There are inconsistencies in the format of references. 8、There are some typos in the English expression and some sentences are difficult to follow. For example: Line 4 and Line 9 in Artificial Intelligence and Endoscopy. "endocystoscopy" should be "endocytoscopy". the second paragraph in AI in Gastric Cancer. In the sentence: "Superficially depressed and differentiated-type intramucosal cancers that were difficult to distinguish from gastritis even for experienced endoscopists were missed", is it means "not missed"?

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 58662

Title: Evolving role of artificial intelligence in gastrointestinal endoscopy

Reviewer's code: 00058381

Position: Editorial Board

Academic degree: MD

Professional title: Professor

Reviewer's Country/Territory: Austria

Author's Country/Territory: United States

Manuscript submission date: 2020-08-01

Reviewer chosen by: Jia-Ping Yan

Reviewer accepted review: 2020-09-02 07:30

Reviewer performed review: 2020-09-02 15:17

Review time: 7 Hours

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [Y] Minor revision [ ] Major revision [ ] Rejection
Re-review	[ ] Yes [Y] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

This manuscript deals with artificial intelligence and gastrointestinal endoscopy, providing an overview and future perspectives; however, some items require improvement. First, the legal aspect is only mentioned very briefly in the "limitations" section and should be covered in more detail. Second, illustrative material would be helpful. Third, the term "endocystoscopy" (sections "Artificial Intelligence and Endoscopy" and "AI in Barret's Esophagus and Esophageal Cancer") is misleading – as it does not refer to cysts or to the bladder (as in "cystoscopy"), "endocytoscopy" would be appropriate. Moreover, some sentences are unclear; e.g., "As the name indicates, unsupervised learning the model makes sense of the data without external measurements or guidelines" (section "Machine learning"); "CNN as an advanced learning model and is designed to utilize large datasets to learn patterns in correlating images" (section "Convolutional neural networks"); "Using computer-aided frameworks, AI algorithms can identify pancreatic cysts that are at higher risk of developing into PC reported an ANN that can be used to predict PC, with a sensitivity of 80.7% and a specificity of 80.7%, based only on personal health data" (section "Artificial Intelligence and Endoscopic Ultrasound").

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 58662

Title: Evolving role of artificial intelligence in gastrointestinal endoscopy

Reviewer's code: 02438768

Position: Editorial Board

Academic degree: MD

Professional title: Associate Professor

Reviewer's Country/Territory: China

Author's Country/Territory: United States

Manuscript submission date: 2020-08-01

Reviewer chosen by: Jia-Ping Yan

Reviewer accepted review: 2020-09-01 23:52

Reviewer performed review: 2020-09-11 00:20

Review time: 9 Days

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[ ] Grade A: Priority publishing [Y] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [Y] Minor revision [ ] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Comments for ESPS Manuscript NO 58662 This review is interesting, and the authors should add necessary tables and figures to simplify the complexity of the text, so that the readers have a more intuitive understanding of the content of this paper.

PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 58662

Title: Evolving role of artificial intelligence in gastrointestinal endoscopy

Reviewer's code: 00182114

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Professor, Surgeon

Reviewer's Country/Territory: Japan

Author's Country/Territory: United States

Manuscript submission date: 2020-08-01

Reviewer chosen by: Jia-Ping Yan

Reviewer accepted review: 2020-09-05 12:22

Reviewer performed review: 2020-09-11 02:58

Review time: 5 Days and 14 Hours

Scientific quality	[ ] Grade A: Excellent [ ] Grade B: Very good [Y] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [ ] Accept (General priority) [Y] Minor revision [ ] Major revision [ ] Rejection
Re-review	[Y] Yes [ ] No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

This is very interesting paper about AI and endoscopy.With a small intestine capsule endoscope, it is a heavy burden for the reader to take 60,000 images per patient and to take an endoscopic image for 30 to 120 minutes, and it is a heavy burden for the reader to overlook the lesion. It would be nice if there was an AI system. I ask question to author.Please tell me a little more specific about small bowel capsule endoscopy and AI.

RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 58662

Title: Evolving role of artificial intelligence in gastrointestinal endoscopy

Reviewer's code: 02444931

Position: Editorial Board

Academic degree: PhD

Professional title: Assistant Professor, Research Scientist, Senior Lecturer

Reviewer's Country/Territory: China

Author's Country/Territory: United States

Manuscript submission date: 2020-08-01

Reviewer chosen by: Xi-Fang Chen (Part-Time Editor)

Reviewer accepted review: 2020-11-04 00:48

Reviewer performed review: 2020-11-04 08:44

Review time: 7 Hours

Scientific quality	[Y] Grade A: Excellent [ ] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [Y] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Manuscript has been revised in accordance with comments.

RE-REVIEW REPORT OF REVISED MANUSCRIPT

Scientific quality	[ ] Grade A: Excellent [Y] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [ ] Grade B: Minor language polishing [ ] Grade C: A great deal of language polishing [ ] Grade D: Rejection
Conclusion	[ ] Accept (High priority) [Y] Accept (General priority) [ ] Minor revision [ ] Major revision [ ] Rejection
Peer-reviewer statements	Peer-Review: [Y] Anonymous [ ] Onymous Conflicts-of-Interest: [ ] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Comments for ESPS Manuscript NO 58662   The manuscript has been revised in line

with the Reviewers' comments. I have no specific comments.