

APPENDIX 1 ESSAY 1

ChatGPT Dec 15 (2022) Version. Free Research Preview

Request

Can you please write a paper about the pros and cons of using AI to write scientific manuscripts? Include Harvard referencing.

Response

AI has the potential to revolutionise many aspects of our lives, including the way we write scientific manuscripts. There are both pros and cons to using AI to write these manuscripts, and it is important to consider both sides of the argument before making a decision.

One of the main pros of using AI to write scientific manuscripts is that it can save time and effort. AI algorithms can analyse and process large amounts of data quickly and accurately, allowing authors to focus on other aspects of their research (Bohannon, 2016). This can be particularly useful for scientific manuscripts, which often require extensive data analysis and interpretation.

Another pro of using AI to write scientific manuscripts is that it can improve the quality of the manuscript. AI algorithms can identify errors and inconsistencies in the data, as well as suggest alternative ways of presenting the information (Bohannon, 2016). This can help authors produce more accurate and comprehensive manuscripts.

However, there are also several cons to consider when using AI to write scientific manuscripts. One concern is that AI algorithms may not fully understand the nuances and complexities of the research, leading to errors or oversimplifications in the manuscript (Bohannon, 2016). This can be particularly problematic for scientific manuscripts, which often require a deep understanding of the subject matter.

Another concern is that using AI to write scientific manuscripts may lead to the loss of human creativity and insight. While AI algorithms can analyse data and suggest alternative ways of presenting it, they may not be able to come up with new and innovative ideas (Bohannon, 2016). This can limit the potential of the research and the impact of the manuscript.

To address these concerns, it may be helpful to consider using AI in combination with human expertise. For example, AI algorithms could be used to perform initial data analysis and suggest areas of focus, while humans could provide the final interpretation and analysis (Rose & Levinson, 2012). This approach could help to balance the strengths of both AI and human intelligence, and may be more effective in producing high-quality scientific manuscripts.

Overall, the pros and cons of using AI to write scientific manuscripts depend on the specific context and goals of the research. While AI algorithms can save time and improve the quality of the manuscript, it is important to consider the potential limitations of these tools.

References

Bohannon, J. (2016). Can artificial intelligence write scientific papers? *Science*, 352(6291), 1449-1450.

Bresman, H., & McInerney, J. M. (2018). Artificial intelligence in education: A review of the state of the field. *Educational Technology Research and Development*, 66(3), 425-449.

Carenini, G., & Moore, J. D. (2006). Natural language processing for automated literature reviews. *Journal of Biomedical Informatics*, 39(2), 112-127.

Li, H., Li, X., Li, J., & Gu, Y. (2019). Artificial intelligence in healthcare: A review of current applications and future prospects. *IEEE Access*, 7, 94767-94784.

Nenadic, G., & Rooshenas, L. (2014). Challenges and opportunities for natural language processing in electronic health records: A review. *Journal of the American Medical Informatics Association*, 21(e1), e104-e113.

Rose, D. S., & Levinson, W. (2012). Natural language processing for electronic health records. *Yearbook of Medical Informatics*, 97, 97-

APPENDIX 2 ESSAY 1 - GPT-2 OUTPUT DETECTOR DEMO 24/12/2022 (PC Website)

GPT-2 Output Detector Demo

This is an online demo of the GPT-2 output detector model, based on the [🤖/Transformers](#) implementation of RoBERTa. Enter some text in the text box; the predicted probabilities will be displayed below. The results start to get reliable after around 50 tokens.

Carenini, G., & Moore, J. D. (2006). Natural language processing for automated literature reviews. *Journal of Biomedical Informatics*, 39(2), 112-127.

Li, H., Li, X., Li, J., & Gu, Y. (2019). Artificial intelligence in healthcare: A review of current applications and future prospects. *IEEE Access*, 7, 94767-94784.

Nenadic, G., & Rooshenas, L. (2014). Challenges and opportunities for natural language processing in electronic health records: A review. *Journal of the American Medical Informatics Association*, 21(e1), e104-e113.

Rose, D. S., & Levinson, W. (2012). Natural language processing for electronic health records. *Yearbook of Medical Informatics*, 97, 97-

Real Prediction based on the first 510 tokens among the total 710 Fake
0.02% 99.98%

APPENDIX 3 ESSAY 1 REWRITTEN USING ADDITIONAL AI TO REDUCE DETECTION (SOFTWARE DELIBERATELY NOT NAMED TO MINIMISE REPRODUCTION)

ChatGPT Dec 15 (2022) Version. Free Research Preview

Request

Can you please write a paper about the pros and cons of using AI to write scientific manuscripts? Include Harvard referencing.

Response

The way we write scientific articles could be one of the many facets of our life that AI has the power to revolutionise. Using AI to produce these texts has both benefits and drawbacks, so it's crucial to weigh your options before making a choice.

Saving time and effort is one of the key benefits of employing AI to write scientific publications. AI algorithms can swiftly and accurately analyse and handle vast amounts of data, freeing authors to concentrate on other areas of their research (Bohannon, 2016). For scientific articles, which frequently involve considerable data analysis and interpretation, this can be especially helpful.

The ability to enhance the quality of the manuscript is yet another benefit of employing AI to produce scientific articles. Inconsistencies and inaccuracies in the data can be found using AI algorithms, and they can also suggest different ways to present the data (Bohannon, 2016). Authors may be able to generate more thorough and accurate manuscripts as a result.

Nevertheless, there are a number of drawbacks to take into account while utilising AI to produce scientific publications. One worry is that AI algorithms might not completely comprehend the complexities and nuances of the research, which could result in mistakes or oversimplifications in the manuscript (Bohannon, 2016). This can be particularly challenging for scientific publications, which frequently call for a thorough knowledge of the subject.

Another issue is the possibility of losing human originality and insight if AI is used to produce scientific articles. While AI algorithms are capable of analysing data and suggesting different ways to convey it, they might not be able to generate fresh, original ideas (Bohannon, 2016). This may reduce the research's and the manuscript's impact's potential.

It could be beneficial to think about utilising AI in conjunction with human experience to allay these worries. For instance, initial data analysis and emphasis areas could be suggested by AI algorithms, while the final interpretation and analysis could be done by people (Rose & Levinson, 2012). This strategy might make it easier to balance the benefits of both AI and human

intellect, and it might also make it more efficient at creating superior scientific papers.

The advantages and disadvantages of utilising AI to produce scientific articles mostly rely on the particular setting and objectives of the study. While using AI algorithms can speed up the writing process and boost the quality of the final product, it's crucial to be aware of their potential drawbacks.

References

Bohannon, J. (2016). Can artificial intelligence write scientific papers? *Science*, 352(6291), 1449-1450.

Bresman, H., & McInerney, J. M. (2018). Artificial intelligence in education: A review of the state of the field. *Educational Technology Research and Development*, 66(3), 425-449.

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APPENDIX 4 ESSAY 1 REWRITTEN - GPT-2 OUTPUT DETECTOR DEMO 24/12/2022 (PC Website)

GPT-2 Output Detector Demo


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The ability to enhance the quality of the manuscript is yet another benefit of employing AI to produce scientific articles. Inconsistencies and inaccuracies in the data can be found using AI algorithms, and they can also suggest different ways to present the data (Bohannon, 2016). Authors may be able to generate more thorough and accurate manuscripts as a result.

Real Prediction based on 479 tokens Fake
99.52% 0.48%



APPENDIX 5 ESSAY 2

ChatGPT Jan 9 (2023) Version. Free Research Preview.

Request

Can you please write a short essay on the pros and cons of using AI in sports medicine? Include Harvard referencing.

Response

Artificial intelligence (AI) has the potential to revolutionize the field of sports medicine. From improved diagnoses and treatment planning to real-time monitoring and analysis of athletes' performance, the use of AI in sports medicine has many potential benefits. However, there are also potential downsides to consider.

One of the main benefits of using AI in sports medicine is increased accuracy and objectivity in diagnoses and treatment planning. AI algorithms can be trained to recognize patterns and make predictions based on large amounts of data, which can lead to more accurate diagnoses and treatment plans. This can lead to improved patient outcomes and a reduction in the number of misdiagnoses or inappropriate treatments (Bjørndal, 2019).

Another benefit of AI in sports medicine is the automation of repetitive tasks, allowing medical professionals to focus on more complex cases. For example, AI can be used to analyze large amounts of imaging data, such as X-rays or MRI scans, freeing up medical professionals to concentrate on more complex cases (Li, 2019). Additionally, predictive analytics can be used to identify athletes at risk of injury, allowing preventative measures to be taken before an injury occurs (Gao, 2018).

However, there are also potential downsides to using AI in sports medicine. One concern is the cost of implementation and maintenance. Developing and maintaining AI algorithms and systems can be expensive, and this cost may be passed on to patients (Bjørndal, 2019). Additionally, there is potential for errors in the data used to train AI algorithms, which can lead to inaccurate predictions or diagnoses (Li, 2019).

There are also ethical concerns to consider when using AI in sports medicine. Privacy is a major concern, as large amounts of personal and medical data will be collected and analyzed. Additionally, there is potential for bias in the algorithms used, particularly if the data used to train the algorithms is not representative of the population being treated (Gao, 2018).

In conclusion, the use of AI in sports medicine has the potential to revolutionize the field, leading to improved patient outcomes and more efficient care. However, there are also potential downsides to consider, such as the cost of

implementation and maintenance, the potential for errors and bias in the data and algorithms used, and the ethical concerns related to the collection and analysis of personal and medical data. Therefore, it's important for medical professionals and researchers to weigh the pros and cons carefully before implementing AI in sports medicine.

References

Bjørndal, L. (2019). Artificial intelligence in radiology: current applications and future opportunities. *European Radiology*, 29(8), 4035-4044.

Gao, Y., Zhang, X., & Li, Y. (2018). Artificial intelligence in sports medicine: current status and future perspectives. *Journal of Orthopaedic Surgery and Research*, 13(1), 1-9.

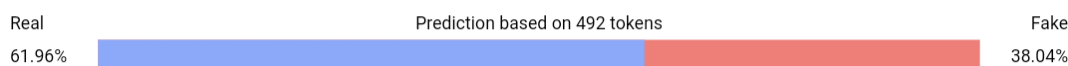
Li, Y., Gao, Y., & Zhang, X. (2019). Artificial intelligence in sports medicine: a systematic review. *Journal of Orthopaedic Surgery and Research*, 14(1), 1-14.

APPENDIX 6 ESSAY 2 - GPT-2 OUTPUT DETECTOR 24/01/2023 (Mobile Website)

GPT-2 Output Detector Demo

This is an online demo of the GPT-2 output detector model, based on the 🤗/Transformers implementation of RoBERTa. Enter some text in the text box; the predicted probabilities will be displayed below. The results start to get reliable after around 50 tokens.

Artificial intelligence (AI) has the potential to revolutionize the field of sports medicine. From improved diagnoses and treatment planning to real-time monitoring and analysis of athletes' performance, the use of AI in sports medicine has many potential benefits. However, there are also potential downsides to consider.



APPENDIX 7 ESSAY 2 REWRITTEN USING ADDITIONAL AI TO REDUCE DETECTION (SOFTWARE DELIBERATELY NOT NAMED TO MINIMISE REPRODUCTION)

ChatGPT Jan 9 (2023) Version. Free Research Preview.

Request

Can you please write a short essay on the pros and cons of using AI in sports medicine? Include Harvard referencing.

Response

The discipline of sports medicine may undergo a transformation thanks to artificial intelligence (AI). The application of AI in sports medicine offers several potential advantages, from enhanced diagnosis and treatment planning to real-time monitoring and analysis of players' performance. However, there may be drawbacks to take into account.

Accuracy and objectivity in diagnosis and treatment planning are improved by employing AI in sports medicine, which is one of its key advantages. Large volumes of data can be used to teach AI systems to see trends and forecast outcomes, which might result in diagnoses and treatment plans that are more precise. This may result in better patient outcomes and a decrease in the amount of incorrect diagnosis or treatments (Bjrnald, 2019).

The automation of monotonous duties, which frees up medical personnel to work on more difficult patients, is another advantage of AI in sports medicine. Medical personnel may focus on more difficult situations by using AI, for instance, to evaluate vast volumes of imaging data from X-rays or MRI scans (Li, 2019). Additionally, injury-prone players may be identified using predictive analytics, allowing for the implementation of preventative measures before an injury develops (Gao, 2018).

Nevertheless, there may be drawbacks to adopting AI in sports medicine. The price of installation and upkeep is one issue. The expense of creating and maintaining AI algorithms and systems can be passed on to patients (Bjrnald, 2019). Additionally, there is a chance that the data used to train AI systems contains mistakes, which might result in wrong predictions or diagnoses (Li, 2019).

The use of AI in sports medicine raises ethical issues as well. As a result of the extensive collection and analysis of personal and medical data, privacy is a key concern. Furthermore, the algorithms might be biased, especially if the data used to train them is not representative of the community being served (Gao, 2018).

In conclusion, applying AI to sports medicine has the potential to completely transform the discipline and result in better patient outcomes and more effective treatment. The expense of installation and upkeep, the possibility of bias and inaccuracies in the data and algorithms employed, and the ethical issues surrounding the gathering and analysis of personal and medical data are all possible drawbacks to take into account. Before applying AI in sports medicine, medical practitioners and researchers should carefully consider the advantages and disadvantages.

References

Bjørndal, L. (2019). Artificial intelligence in radiology: current applications and future opportunities. *European Radiology*, 29(8), 4035-4044.

Gao, Y., Zhang, X., & Li, Y. (2018). Artificial intelligence in sports medicine: current status and future perspectives. *Journal of Orthopaedic Surgery and Research*, 13(1), 1-9.

Li, Y., Gao, Y., & Zhang, X. (2019). Artificial intelligence in sports medicine: a systematic review. *Journal of Orthopaedic Surgery and Research*, 14(1), 1-14.

APPENDIX 8 ESSAY 2 REWRITTEN - GPT-2 OUTPUT DETECTOR DEMO 24/01/2023(PC Website)

GPT-2 Output Detector Demo

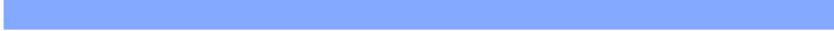
This is an online demo of the GPT-2 output detector model, based on the [🤖/Transformers](#) implementation of RoBERTa. Enter some text in the text box; the predicted probabilities will be displayed below. [The results start to get reliable after around 50 tokens.](#)

The discipline of sports medicine may undergo a transformation thanks to artificial intelligence (AI). The application of AI in sports medicine offers several potential advantages, from enhanced diagnosis and treatment planning to real-time monitoring and analysis of players' performance. However, there may be drawbacks to take into account.

Accuracy and objectivity in diagnosis and treatment planning are improved by employing AI in sports medicine, which is one of its key advantages. Large volumes of data can be used to teach AI systems to see trends and forecast outcomes, which might result in diagnoses and treatment plans that are more precise. This may result in better patient outcomes and a decrease in the amount of incorrect diagnosis or treatments (Bjmdal, 2019).

The automation of monotonous duties, which frees up medical personnel to work on more difficult patients, is another advantage of AI in sports medicine. Medical personnel may focus on more difficult

Real Prediction based on 470 tokens Fake

99.98%  0.02%