Use of Artificial Intelligence "GPT-3" for Science Backroom, Orion Module and Space Station Gateway for the Space Program Artemis.

Edison VARGAS FERNANDEZ, edy.antony@hotmail.com

Introduction: Artificial Intelligence has many applications nowadays and therefore it could be used for a quick response to help the crew members in a space mission, either in the scientific field or in the safety, psychological well-being and protocol follow up.

Development: The artificial intelligence to be used is the open AI "GPT-3" because it uses a Generative Pretrained Transformer, that is to say that the data are analyzed so that it fulfills the space mission effectively. In fact, the data of scientific relevance of the NTRS portal will be the input for data processing as well as reports, instructions, security protocols that are provided in the space mission Artemis, so this provides a number of information placed in a computer to be used as input for an appropriate decision making for the backroom, in fact this application could be used on board of "Orion" and "Gateway" because it is an application should only be loaded into the computer of the ship.

Now, we know from old manned space missions that the communication between Earth and deep space has a communication cut-off or delay therefore an input provided to the mission crew with all the pretrained information will be a strategic point, in Apollo 11, an alarm was activated and both flight controllers and astronauts did not know what it was about, therefore an application boarded the spacecraft with artificial intelligence could help the astronauts to make a decision, in Apollo 13, several systems failed, it was vital the time to help them and an AI could do it faster than a human being, however, this is only an input that will serve for a proper decision making. The proposed AI system has as relevance the data treatment (F. Generator and F. Discriminator) and prioritize them for an adequate management of the scientific work follow-up, but also keeping its security.

On the other hand, we know that making a decision in space is vital for the crew, since sometimes an event occurs unexpectedly so a quick decision could be an important input for the lives of the crew, likewise represents a valuable input in terms of science because it will privilege the mission in accordance with Science Traceability Matrix. The data processing output would be a small report to be considered for decision making, meaning that the "backroom and mission crew" may have a small input of information that could be effective for rapid decision making. Similarly, as a Generative Pretrained Transformer, the application could be trained with the psychosocial profile of each crewmember, which would help the crewmember's psychosocial treatment to promote good mental health, which is recommended for long-distance travel.

Conclusion: AI can be a great ally as an input for rapid response to a particular event that requires a quick decision but at the same time provides an input for the ground personnel in the backroom to have a different perspective on all the information that has been used to respond to a particular event of the space mission. At the same time, this tool could be used for the well-being of the crew.

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