**Editor’s Comment:**

  . I must suggest the following:

-Due to the size and complexity of the text (28 pages if I am not mistaken) the authors should include at the end of the Introduction a brief description of the rest of the text, listing the respective sections and what is done in each one. This will be a very useful guide for readers, serving as a guide for reading.

- I suggest the following text for section 4.3, to avoid 4.3.1, 4.3.2 and 4.3.3, and with some grammatical corrections:

**4.3. Challenges and Limitations**

Despite rapid advances in artificial intelligence (AI), there are still some challenges in their application to healthcare domains. Some further research needs are discussed on both short- and long-term perspectives. So,

-**Sustainability Concerns Healthcare organizations worldwide** have greatly invested in digital solutions in terms of financial and human resources. Providers need to ensure that the new solution can bring the desired outcome within a reasonable timeframe. Past experiences in the proliferation of AI-enabled healthcare technology have shown a tendency for underutilization of solutions post roll out, with resources ineffectively invested(Solomon Antwi Buabeng et al., 2024). There must be a thorough upfront analysis of the anticipated outcome, maturity of the technology, implementation effort, required operating resources, and necessary maintenance packages.

-**Ethical Concerns.** The increasing presence of AI technologies raises ethical issues in relation to a suspected lack of fairness and inclusivity in some solutions. Since VHCAs are trained based on historical data in most applications, chances are that the AI deliberates unintentional biases that were encoded in the training set. Additionally, several AI-enabled tools leverage user-generated content as input data without users’ consent for advertising and marketing purposes. For social chatbots, it is challenging to define the border between helpful and harmful advice regarding ethics and content moderation. This issue is further magnified in healthcare chatbots, which may give inappropriate medical advice to users seeking help. A recent incident illustrates the imperfection of current health chatbots that when instructed to ponder a person’s likelihood of developing cancer, four out of six trusted health chatbots recommended a precision medicine or clinical trial. The ethical issues could also lead to reputational loss for hospitals. Health chatbots must take the precautionary principle, provide a disclaimer when give harmful advice that additional consultation with healthcare professionals is imperative. Moreover, there must be discussion between stakeholders, regulatory bodies, and ethical committees on the governing structure of healthcare chatbots in terms of judging whether a chatbot is reliable or not.

-**Data Concerns Healthcare systems** are often worried about data security and protection. Organizations can provide better data safety. Under the current global pandemic, AI technologies capable of assessing health status remotely can be set up to reduce the risk of spreading the virus, such as early observation of pasture soundness using computer vision in a clinical environment.

Having done this, I think the text is ready to be published in AJPAS.

**Editor’s Details:**

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