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Artificial Intelligence Standards Recommendations

1. In addition to development of "FDA-like" regulation and clinical trials (with well-defined standards) for AI systems within critical applications, we also need the equivalent of an "NTSB investigation" process to learn from AI failings, and ensure that these learnings are captured, widely disseminated, and play a role in informing a well-defined process for influencing policy and regulation and technical development standards.

2. The existing body of technical work in improving AI "explainability" should be leveraged and supported in order to develop practical "explainability/accountability" standards.

3. Items #1 and #2 above should be used to support a "certification" process, a certain level of certification being mandatory for critical applications (i.e. in medical diagnostics, non-discriminatory hiring and lending, various critical decision support systems, etc).

4. Since testing of AI algorithms for various traits is highly dependent on well-curated "reference" datasets, reference datasets should be maintained and made available to the public for those purposes.

5. A significant challenge exists in translating values-based principles for AI into sound development and deployment practices. Significant research support is needed to operationalize values of "fairness," "accountability," and "transparency" in public and private sector AI strategies. Federal agencies can play a significant role in supporting and facilitating this research and disseminating standards.

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