# Summary of *From Man vs. Machine to Man + Machine: The art and AI of stock analyses*

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1. **What are the research questions?**

   - Can Man + Machine model perform better than AI-only model in stock return forecast?

2. **Why are the research questions interesting?**

   - concerns：can AI replace humans in increasingly skilled tasks ?
     - existent studies mostly involves a theme of *Man versus Machine*
     - goal for develop AI:skilled human workers tap into higher potential with AI
   - Man + Machine matches——a *centaur* player——better human chess players
   - AI-powered recommendations about stock picking and portfolio formation

3. **What is the paper's contribution?**

   - contribute on literature on the competition to human workers posed by AI
     - **Prior**:highlight how AI innovations disrupt many high-skill jobs
     - **Extend**:focuses on humans' relative advantage over machines, potential synergies
   - contribute on literature on impact of big data and AI in the financial industry.
     - **Extend**:explore internal mechanism of AI process instead of market-level proxies
   - contribute on building and assessing machine learning models in finance.
     - **Extend**:explore the complementary value humans can offer in the age of AI

4. **What hypotheses are tested in the paper?**

   - AI model perform better than Man model.
   - Man + Machine model perform better than AI-only model.

   **Do these hypotheses follow from theory? Explain logic of the hypotheses.**

   - analysts exhibit biases in their forecasts,information,psychological;analysts possess information that is not picked up by the AI,man + machine avoid extreme error

5. **Comment on the appropriateness of the sample,variable,model**

   - firm、ind、macro、text senti，other Potential factors;RF, gradient boosting, and long short-term memory NN,out of 922,157 forecasts made from 2001 to 2018

6. **What difficulties arise in drawing inferences from the empirical work?**

   - The simulation assumes access to all analysts' private information and forecasts, which is not possible in reality.

7. **Describe at least one publishable and feasible extension of this research.**

   - Is AI, like ChatGPT, more beneficial for institutional or retail investors? Does it promote equality or widen the gap? Does it reduce institutional investors' information and analysis advantage, or do they still gain more from it?