

AI for investment analysts: Triangle of Silicon Valley, Hollywood & Wall Street

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In 2023 the advances in AI caused extensive strikes in Hollywood hitting movie studios and streaming platforms. Writers and actors were scared AI could and would replace their plots, voices and faces. AI has the ability to revolutionize and further digitalize movie experiences. The finance industry has been similarly revolutionized by the speed and access of digital technology amplified by recent developments in AI that can replace as well as augment investment analysts. Similar as in Hollywood and (un?)surprisingly, several of these advances in AI concern voice and facial techniques. These techniques identified and underscored biases investors have in relation to voice and physical appearances of people.¹ Awareness of these techniques and the results of related studies during manager selection and fundamental company analysis is required to, symbolically, not end up like the villain in a James Bond movie.

Recently several academic studies have revealed, again not surprisingly and in line with previous research on 'good looks', that also investors are influenced by the facial attractiveness of individuals. Several papers using AI to score facial attractiveness indicate that unattractive PM's outperformed attractive PM's by over 2% annually. However, papers also show that PM's with the looks of 'Brad Pitt' or 'Angelina Jolie' attracted significant higher inflows, especially when their photos were accessible to investors. Authors of these papers indicate that potential explanations are predominantly related to biases of end investors including the so called 'beauty effect'. Related studies show good looking analysts produced more accurate earnings forecasts than less attractive analysts. In addition, their stock recommendations were more profitable. These analysts gained more media exposure, had better

connections to institutional investors and received more internal support from their employers. Again, evidence of the beauty effect.

This raises interesting puzzles and moral considerations when performing a due diligence on a manager. Should one abolish face-to-face with PM's eventhough these interviews are currently considered a crucial part of each due diligence? Should one hire due diligence analysts, that by using AI-techniques, score high on attractiveness and trustworthiness as they can 'extract' more and better information during the conversations? Is it ethical to use photos and actually rank PM's on the basis of their looks? And because also PM's pick up the results of these studies and if one persists on having meetings face-to-face meetings: should one try to pull on the supposedly ugly looking PM's hair or skull to test if this is a real face and not a mask from Mission Impossible?

Parallel research signaled the presence of the beauty effect in the corporate world. Using AI-techniques authors show that attractive bank CEO's received higher pay, eventhough they were prone to lead to lower shareholder returns. Investment analysts should pay attention to this 'beauty trap', but even more importantly to the tone of voice of CEO's as the number of face-to-face meetings with CEO's reduced since Reg FD in 2000. Many asset managers already use machine learning to go over transcripts of earnings calls and therefore its value will erode over time. Likewise, CEO's have been trained to use certain words and sentences to counter or 'game' the algo. Therefore, recently several asset managers started researching how words are actually spoken. These techniques identify for instance hesitation and subsequently reveal the emotions and the true sentiment by assessing their tone of voice. What are the next steps in this rat



race between CEO's and investment analysts? More voice training with actors by CEO's like common for politicians or will the CEO-analyst encounters become more boring and emotionless? Will CEO's use the Steven Hawking's Voice Generator during an earnings call, while not transforming into a voice (and AI on the loose) like Hal9000 in A Space Odyssey?

How should investors take the findings of AI research on the role facial attractiveness and voice into account to debias their investment processes? Like for all the behavioral biases and heuristics an investor first and foremost has to recognize the existence of these and be humble enough to acknowledge that even he or she, like all financial actors, will be influenced by it. The above findings indicate that you are able to at least build some 'defenses' in your investment process against it and even use it to your own benefit. However, it remains a rat race between PM's and CEO's trying to convey an image and perfect story, smile and face towards prospective and current investors and analysts. In between (or their techniques and tools) are the servers of OpenAI, Alphabet and Amazon as well as moral considerations. For sure, Wall Street pros have to travel to Silicon Valley to pick up the latest AI techniques, but an extensive visit to Hollywood is necessary to not be influenced by a mirage and siren song.

Note

- 1 Including papers from the Journal of Accounting Research, Journal of Behavioral and Experimental Finance, Journal of Economics and Business or (NBER) working papers of academics.