Top 3 Reasons why AI-automation projects fail

2019 surveys on 800+ enterprise leaders show that more than 60% of them are quite dissatisfied with the outcomes delivered by the AI-automation projects that they have run. More than 40% in fact label these projects as 'failures'.

What are the top root causes of failure of these AI-automation projects?

1) Wrong choice of problem, rushing to retro-fit AI solutions into any problem:

Not spending enough time in analyzing the problem and rushing to 'do AI' - say as some kind of latest fashion trend, can spell doom for the tremendous potential of this new enterprise technology solution.

It is important to understand if it's an AI problem at all in the first place, or any good RPA or even automation scripts or orchestration solutions can fix it to a reasonable & acceptable level of accuracy, in a much simpler, cheaper, faster manner.

AI is no panacea for all ills. It is complex, new [for enterprise-grade applications], is not adequately understood even by practitioners as it doesn't have decades of enterprise-level mainstream execution history. Playing with it in a small scale to start off with, spending 90% of time to understand the problem space and if AI techniques will be best-fit there, are most important basic hygiene checks that many of us forget, in our over-enthusiastic attempt to put something about AI in our resumes. **In that mad gold-rush, we set AI up for failure, and then, as AI cannot defend itself, we follow the proverbial Bad Workmen practice- Blame the Tool**!

2) Inadequate understanding of data, wrong choice of algorithms:

Data, or the lack of it, [not just in terms of quantity but also on quality], is the most critical lever, especially when we are most comfortable in using supervised learning [for good reasons]. If our labeling logic itself is biased/ wrong, if our annotations are not accurate, of course then the training of the bots with those data-sets are also going to be erroneous and **it will be a GIGO- garbage-in-garbage-out situation**!

Wrong choice of algorithms is a similar issue:, e.g. choosing overly complex, least understood and least tried & tested AI techniques - just to make the solution look sexier even if not optimal & effective, while better results could be achieved with simpler approaches.

Real good practitioners are the ones who can solve complex problems with simple solutions, NOT the other way round. For example, if there is good labelled data available in a business domain where the domain experts/ process owners have good confidence on the quality of that data and logic, supervised ML can be the most feasible way. In such scenarios, trying out other, less tried-n-tested techniques [say like reinforcement learning - extensively used in games but not much proof-points in enterprise applications yet] - may work well in pure research contexts, but doesn't augur well in an enterprise context where there are clear timelines, expectations, RoI, outcomes are set.

3) Half-baked talent at work:

Given AI is the latest fad, almost every slightly ambitious and market-aware person in the global workforce is jumping into the bandwagon. There is an extreme lack of understanding and appreciation of the amount of rigor that has already gone in and is continuously going in, to the development of AI/ ML techniques and algorithms. For example, there are folks who may not have any idea about what is 'causality', thereby what's the difference between simple correlation and regression, are jumping into using Logistic Regression! Basic knowledge of maths and stats are expected while doing any courses on AI/ML. It's NOT just about learning to code in Python or being able to call some routine in R. The LOGIC has to happen in the human brain, to make the machine brain work for business, humans, whatever. **Knowing Python is NOT the same as knowing AI.**

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