4. AIDR Framework

AIDR framework is a sequence of steps that helps to effectively prioritize and determine problems well suited for an AI Solution. Using this framework, one can determine if a project is AI-ready, what kind of ROI to expect, and what it would take to build an AI system to solve their organization's problem.

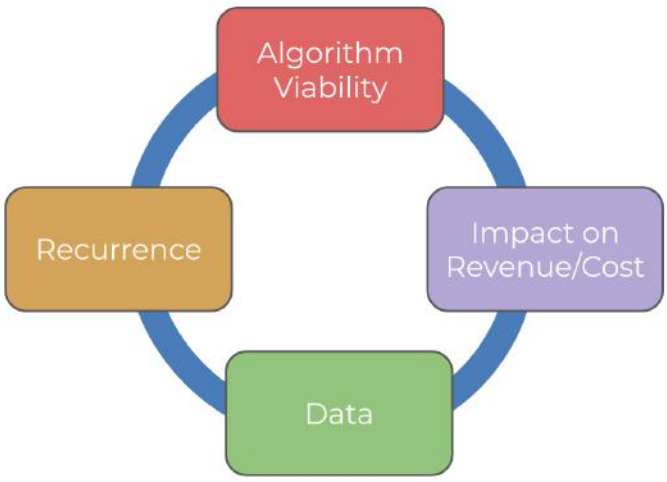

Figure : AIDR Framework

"My digital transformation clients have found the 'AIDR' framework really easy to understand. It's logical how you first think through a problem and whether it's big enough, before seeing if you have the right data to build something to solve it."

Gregory North
CEO, Globe North

a. Algorithm Viability

There are certain things that AI can do very well, and certain things that AI cannot do at all (yet). So the first step would be to determine whether or not AI can solve one's business problem. Consider that a clothing brand wants an AI system as their fashion designer. Is it viable? Absolutely not. Fashion designers need to be very creative and create things from scratch; feats that the current state of the art AI algorithms are quite far from accomplishing. So, one needs to be aware of the research that is currently happening and be realistic about the scope of AI while getting excited about its prospects.

b. Impact of Revenue/Cost

After finding if the business problem can be solved using AI, the next thing would be to understand its impact. If solving the problem doesn't return one with a considerable amount of profit or impact on their business, is the problem really worth solving? Consider a small retailer shop entertaining just 4 to 6 customers a day. They have a cashier that they pay $12 per hour. Out of nowhere, an idea about an automated checkout system strikes them. Is it feasible? Absolutely. Many large retail stores are using these systems to help customers avoid long lines while checking out. The automated checkout system costs about $125,000 to install, excluding the additional maintenance costs. So is it worth it? What is the ROI of this system? How about its payback period? Are they planning to expand their store and the customer base? Especially as the automated checkout system is intended for stores with a large flow of customers. How will this system impact their sales and revenue? Does this system save them some costs? These are some questions one needs to think about.

c. Data

Data is the foundation for AI and machine learning. So if one is planning to implement AI for their business, they will need a considerably large amount of data. There are several questions to answer when it comes to data for building AI models. How much data do they have? Is the data already available, or do we need to collect it? If the data is already available, how is the data stored? Is the data structured into rows and columns, or is it just plain text and image files? How do we collect the data needed to solve this problem?

d. Recurrence

Recurrence is a trait associated with the problem one is trying to solve. It deals with whether or not the problem is worth solving. How often does the problem resurface? What hindrance does the problem bring to their organization if left unsolved? If the problem doesn't occur repeatedly and doesn't hamper the organization's performance much, it would be better to opt for other, more straightforward solutions than going through all the complexities to implement AI.

So, that's the AIDR framework; algorithm viability, impact, data, and recurrence. If you are thinking about a problem to solve or the machine learning system itself, you should consider these 4 key points. And if you find a problem where these four things are lined up very well, you have a problem to build a solution on. And undoubtedly, it will have a far-reaching impact on your business as well.

References

- *AI to drive GDP gains of $15.7 trillion with productivity, personalisation improvements*
- *The state of AI in 2020*
- *What 800 executives envision for the post pandemic workforce*
- *The Future of Jobs Report 2018*