Section II

Why People Don't Get Value from Their AI Initiatives

"It could be that the purpose of your life is only to serve as a warning to others." —Ashleigh Brilliant

In <u>Section I</u>, we made the case that this AI cycle is different and that significant investment is not just recommended but essential. Since you're still with us, we'll assume you're on board with that idea.

However, as we also mentioned, up to 90% of companies that do invest in AI have yet to see any tangible benefit—whether in revenue growth, cost savings, or efficiency gains.

How do we reconcile these two positions?

The reality is that several hurdles must be overcome before you can unlock the value that AI promises in an enterprise setting. In this section, we'll dive into the numerous challenges we've encountered while helping companies implement AI solutions.

Our hope is that by understanding these obstacles, you can avoid them and maximize your potential benefits. After all, if you're going to invest your time, energy, and resources, you deserve to see a return on that investment.

Chapter 4

Problem One: Focusing On Technology Over Value

"If you only have a hammer, you tend to see every problem as a nail."
—Abraham Maslow

After attending a rousing conference touting the benefits of in-store advertising technology, a major home goods and tools store came to us wanting to reap the benefit of their real estate by installing these branded screens. After all, they had a vast swathe of data from their multiple locations across the USA and could use it to attract advertisers. Their initial idea was to implement short video loops in each of their locations, just as they had seen at the conference.

Cool idea.

A fertilizer company might want to advertise its brand of fertilizer in the garden department, while a power tool company might want to advertise its range of tools in the construction department. After all, what could be better than extolling all the benefits of your product exactly at the moment a consumer is making a buying decision?

They had the data to make this possible, and the budget to install the screens and get the infrastructure ready to implement. They would profit off selling the advertisements to companies who wanted to sell more product at their outlet, then make money off selling more of the product itself directly in the outlet–they would win on both sides.

It was an elegant solution that looked great on paper. But let's reimagine the problem. What if the problem wasn't making that immediate sale in the first place?

Imagine you're a homeowner and your information is stored in the database. You could show up wanting to buy paint, and the person who helps you could recommend the exact paint color that you chose last time. They might know your warranty information and be able to recommend specific upgrades, repairs, or new appliances based on the expected appliance life they know that you have left; in fact, they could even tell exactly which water filter will fit the fridge in your kitchen.

Beyond that, if you sell your home, the new home buyer could receive all of this information and know which paint they need to match the color of their home or when to replace their air filters when necessary, despite the fact they might not even know the brand let alone the model number—which likely isn't even made anymore.

It's all about making a person's life easier so that choosing to continue to do business and shop at your location is the obvious choice. It's almost a way of life, making sure they continue to feed you valuable information so that in turn you can use that information to help them keep track of and purchase everything they need for their home.

Armed with that data, the store could then sell leads to contractors. Once you know exactly what type of project a person is working on, you can then match up the right contractor and offer very specific help for that project.

Truly, the number of possible ways in which they can get significant value with this data is only limited by imagination.

Would it have been profitable to sell advertising on screens? Probably. Minus the cost of new screens and the AI necessary to implement and carry out the plan. And discounting the fact that no consumer actually wants to be subjected to watching more commercials.

However, if we are being honest, the only real winners in that equation are the advertising companies that get to help create a marketplace and then get paid to create more assets for that particular channel–maybe no surprise, as they are the ones consistently touting the benefits.

By refocusing on creating the most value for the customer you can get the most value out of your data.

Most ideas are bad ones

In a recent *Forbes* article highlighting the top 10 causes of why small businesses fail, number one is that there's no market need. It's no small margin either; it's the culprit behind failure 42% of the time.[1] Can you imagine putting in all of the blood, sweat, and tears into your business only to find out that nobody wants what you're offering? Apparently, 42% of small business owners experience just that.

How do you know when you're way off base?

You can start at the beginning. As we've already recommended, start with the problem. Many people get caught up in the glamor of technology and discover great new solutions. It becomes a bit of retail therapy for CIOs at times; after all, who doesn't want the latest greatest gadget, not to mention it will certainly look great on a resume to be seen as the person implementing it? Still, if a solution doesn't address a specific problem, it may serve no purpose.

You could say that this is a solution in search of a problem. When people develop a product, app, gadget, or similar solely because the entrepreneur finds it clever, there's a huge risk that it may not address a genuine market or business problem. The key is to avoid becoming overly enamored with your idea and instead focus on developing a deep connection with solving a real market need. To do that, start with the

need first. You have to find the problem, get specific, which will inform how to measure success and go from there.

Hammer, Meet Nail

When clients come to us, they usually hire us to solve a problem. Unfortunately, they rarely know what the specific problem is, notwithstanding what they might think. For example, a major mobile phone company wanted to implement an AI to drive new customer acquisition. After sitting with them to do a discovery, we found what they really wanted was to drive revenue.

Most of the time people assume driving revenue means moving more product. In this case, selling more mobile phone plans. But there are other ways to increase the top line. Our analysis suggested they focus instead on retaining more of their existing customers by reducing customer churn when cell phone plans had come to the end of the contract.

Why?

The cost to acquire a new subscriber (often called customer acquisition costs or CAC) in a highly competitive market with other major carriers who are also trying to grow market share was hundreds of dollars per new user. This is a combination of the marketing costs as well as promotional discounts.

By simply monitoring usage and proactively informing customers of plans that are more appropriate to their usage, they were able to dramatically increase customer satisfaction and decrease churn. While this might seem like bad business, decreasing your profit by ensuring customers are on the cheapest plan for their usage increases overall lifetime value and saves you the cost of trying to find a replacement. In short, you might lose $50 by switching them to a cheaper plan, but you save $500 by retaining that customer.

Similarly, a major restaurant chain wanted us to implement a specific AI solution they had seen to do cross-sell and upsell suggestions. Did they really want this specific software solution? Or, did they want to increase the average check size? Could they simply cross-promote items or upsell items people are already ordering without the cost of purchasing and implementing this software? Did they really need an AI at all?

It would seem this is a perfect AI recommendation use case. Wouldn't one dessert sell better than another for any given customer? Shouldn't you recommend exactly the beer or cocktail that customers always drink? The short answer is yes; of course, that will be more accurate.

However, the cost to show the overall bestselling dessert or drink is effectively free. It is a one-time analysis and the same is displayed to everyone. The cost to build an AI recommendation engine that is constantly running in real time for every table at every restaurant is anything but free. So, the real question now becomes, "Is it worth it, or is a simple static business rule adequate to capture most of the value?"

Ultimately, that's what we did. Using their tabletop kiosks/tablets, we could recommend bestselling items with little to no cost (doing the analysis in the background). The revenue gained from this simple implementation was then able to fund more sophisticated, real-time use cases.

All of this may seem obvious, but it is very often the case that companies start with a specific technology solution in mind. It is usually one they've seen at a trade show, a conference, or that a vendor has pitched them. Those implementations may or may not have value. It's only by focusing on the business problem at hand that you see real results.

Further, you will notice that we focused on measuring both the benefits and costs of the efforts. There are two distinct issues here. First, we need

to assess whether pursuing this solution is worthwhile by evaluating its benefits and costs. If you can increase your revenue by $10 million dollars by spending $1 million dollars on implementation, then that's a practical solution. However, if you can increase your revenue by $20 million dollars by spending $25 million dollars on technology, you've "*achieved failure,*" as we like to say.

Second, in AI-based solutions, it's very difficult to predict what impacts a solution will have in advance. Is solution A better than solution B? In AI systems, we often don't know the answer ex-ante, so we must measure and compare the benefits and costs. We'll focus more on measurement in Chapter 16: Focus on Monitoring and Visibility.

You might be asking, What about all those case studies you shared? Don't they demonstrate that the value is greater than the cost? We aren't suggesting they are marketing puffery–although some are–but rather that every business is different.

Back to our restaurant recommendation engine, the problem was that the upside was too insignificant across too small a user base for them. Seeing the cocktail they just purchased (or any cocktail) will be enough for most people to induce them into another. So, an AI only captures a tiny incremental value for those diners on the margin. That might be enough to justify the cost if you are Amazon and do over one billion dollars in orders every day, but it is not for most restaurant chains.

Data is the new oil

At this point it is probably tempting to turn to your data team to ask, What problems can we solve? We've been collecting all this data for years, if not decades. If we can just list out all of the ideas, then we can prioritize them and assess which of those ideas are worth pursuing. But what you may not realize is that it is likely to lead you astray.

This may seem counter-intuitive. You've probably been told that data is worth trillions of dollars—that it's the new oil, the most valuable resource on earth. And this is true, in a sense, but maybe not how you are thinking.

Long ago, gasoline was a waste product that was dumped in rivers because it was deemed to hold no value. At that time, everyone used kerosene to light their lamps. John Rockefeller saw an opportunity to sell this abundant, practically free resource of gasoline to power up the new automobiles and turn his Standard Oil Company into one of the most profitable companies of that era.

In most cases, what is really needed isn't data about the current situation but an understanding of what market needs exist that drive business value. This industry knowledge is what identifies the problem, and it's the data that we use to create solutions.

To use the above analogy, it might have been tempting to become incredibly focused on the gasoline itself or the processes upstream that produce it as a means to reduce this "waste." However, we find that a consistently better solution is to ignore gasoline entirely at first and focus on the industry needs (a way to power cars) and then go back and ask if gasoline could solve any of those needs.

You may be thinking, Wait, can't my data tell me where the problems are? Possibly. We don't want to suggest not looking at your data at all, but you should not constrain yourself to existing reports or metrics. It's often best to reframe the question.

Reframing the question

Uber will have 5.4 million drivers around the world in 2024.[2] Every one of these people is driving a motor vehicle with their Uber app open as

they go. Every driver is recording unique, quality data that is stored in Uber's database with every ride they give, as well as when they're logged into the app, driving around the city waiting to get more rides.

It's a goldmine of information, which presents a ripe opportunity. But how?

Seattle, known for Starbucks and its rainy weather, is constantly trying to figure out how they can fix small streets that have been damaged by poor weather before they become major repairs and require re-paving the street. To get a better handle on this situation, they have specialized lidar-equipped trucks that drive over the infrastructure and discover which repairs need to be made and where. Unfortunately, each of these trucks cost millions of dollars. That means they can only afford two trucks, which are unable to keep up with all of the new potholes across thousands of roads in the vast and spread out city.

However, hundreds if not thousands of cars drive over all the streets every day. When a car hits one of these potholes, the car and any car-mounted cell phone would shake. Alternatively, a quick swerve might also indicate a pothole. Uber had a fleet of cars and car-mounted cell phones that could map this data out—and the cars were already on the road gathering data while being used for transportation. A win-win. In other words, by starting with the problem, "Where are the potholes?" Uber was able to work backward to what data might answer that question.

This was the invention of UberMovement, a major branch of Uber committed to saving cities millions of dollars and doing public good.[3]

Again, the lidar trucks are super cool and if the city was committed to that solution, they may have tried to make the trucks less expensive or

find money in the budget to buy more trucks or perhaps try to work out a more intelligent route that minimized the streets that were the newest and had the fewest cars traversing them. A simpler, cheaper solution was readily available using a dash of AI and already existing data.

We know there's a lot of data out there, but it's useless unless you can do something with it. If you go to the data first and try to figure out what you can do with it, you're going to find a solution looking for a problem.

Ask the Right Question to Solve the Right Problem

One issue is that companies often seek advice from the wrong source. If you ask the right question but ask the wrong person, you're going to get a bad answer. This may sound silly, but many companies go directly to their data scientists and ask them to use the data to make more money. With no clear problem and often very little business experience, the data scientists will spin their wheels and come up with some solution, but then they're again left with a solution looking for a problem.

For instance, if you had a restaurant and you went to your data scientists to see what the most profitable item was, they might tell you it's desserts. The clear solution to drive more revenue would be to replace all of the appetizers and entrees on the menu with desserts, which, in theory, would drive up the total ticket prices.

You may be chuckling because this seems ludicrous, yet there are companies out there doing exactly this, expecting a specialist in storing and crunching numbers to magically spit out spectacular solutions to save the company.

If we take away the focus on AI as the solution and take away the data scientists as the people who should be figuring out this solution, we can

instead deduce the problem we want to solve and the methodology we're going to use to solve that problem. From there, we can posit which outcome we're trying to achieve with various solutions. Once these decisions are made, we can go to the data scientists and let them know the "why" so they can help create the "how" solution to achieve those goals.

Take, for example, Scheduled Rides for Uber. Instead of creating a ride on demand, riders wanted the ability to schedule a car to get them somewhere at a specific time, such as leaving early the next morning for the airport. This problem is of high value because the rider wants to feel comfortable that they will reach their destination on time. On the other hand, it's a guaranteed ride for drivers to be able to pick up as well if they click that they're available and take that ride. A win-win for both rider and driver. And Uber, of course, which will receive about 25% of each fare. And given the high value to the rider, maybe they can even charge more for the same service.

The challenge is that Uber has no idea which drivers will even be working the next morning, let alone where they will be or if they will accept the ride request. Thus, the idea should be dead on arrival. However, through AI they are able to map driver movement and predict that there will be a driver in the area at the given time in which the rider requests a ride. There's a low enough failure rate that most people are satisfied with the tool; enough to warrant high interest and usage, which is a major success for Uber.

Similar to the home goods and tool store at the beginning of the chapter, Zillow was also sitting on a ton of unique data and trying to figure out how they could best monetize it. The simplest solution is often the best one. Equipped with loads of information about home prices, the ability to track sales, and the personal information of people looking to

purchase very specific types of homes, they now make a lot of money by selling qualified leads to realtors.[4]

Summary

The allure of cutting-edge technology can often overshadow the fundamental goal of creating value. However, by shifting the focus to enhancing customer value—such as providing personalized recommendations based on purchase history—companies can foster deeper connections with their customers and unlock numerous avenues for leveraging data to create meaningful solutions.

Our mobile phone and the restaurant clients illustrate the importance of starting with the problem, not the solution. Identifying the true business need—whether it's reducing customer churn or increasing average check size—leads to cost-effective strategies that deliver tangible results.

Similarly, Uber's innovative use of existing data to address infrastructure challenges highlights the power of creative thinking. Rather than investing in expensive new technologies, they leveraged the data already being collected to create practical, impactful solutions.

The key takeaway is simple: Don't get caught up in technology for its own sake. By focusing on solving real problems and understanding market needs, businesses can develop solutions that not only utilize data effectively but also drive significant value.

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[1] https://www.forbes.com/sites/stephanieburns/2019/04/30/why-entrepreneurs-fail-top-10-causes-of-small-business-failure/?sh=45950c437102

[2] https://www.demandsage.com/uber-statistics/

[3] introducing-uber-movement-2

[4] companies-that-make-money-selling-your-data-to-agents