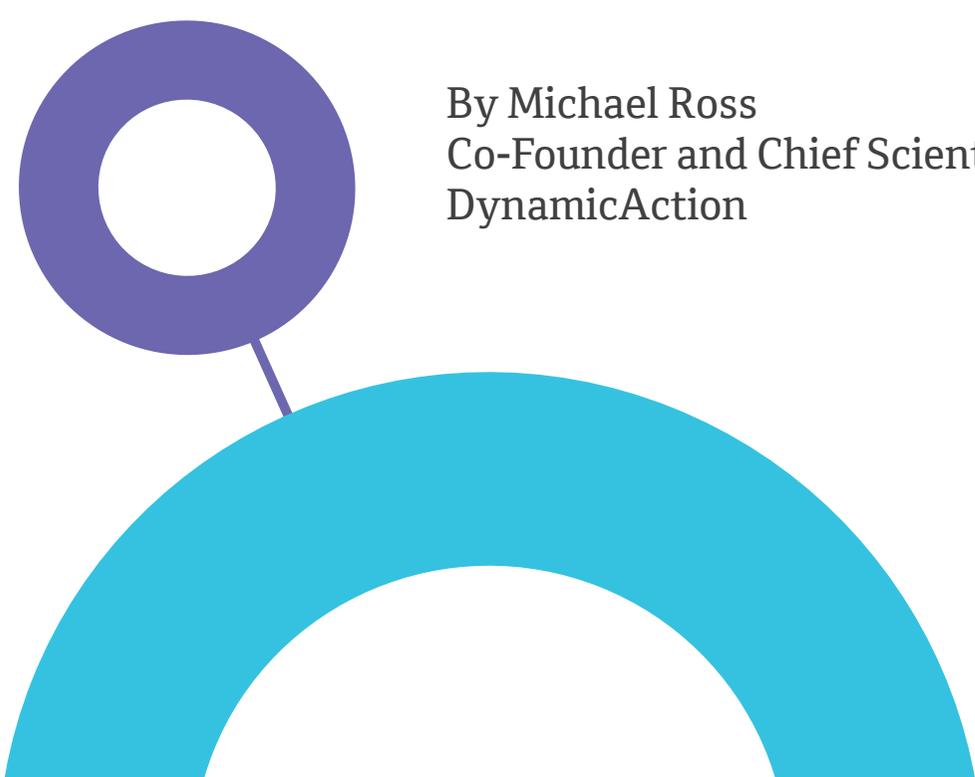# How Amazon Does Data –
And What You Can Learn From It

What you can learn from the behemoth online retailer and its approach to data, customer experience and long-term profit

By Michael Ross
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HOW AMAZON DOES DATA—AND WHAT YOU CAN LEARN FROM IT

On July 11th, 2017, Amazon reported more sales than on any other day of its 22-year lifespan—a mind-bending US $2.5 billion by some estimates. The trigger for this influx of riches was Amazon Prime Day, 30 hours of deals and discounts for Amazon's Prime subscription customers. Prior to this year's Amazon Prime Day, the company briefed the merchants that sell through its platform and invited them to run deals. Each paid upwards of US $300 for the privilege.

Retailers may not want to follow the direct path of Amazon, but by observing Amazon's techniques and mindset, they can add some of the ingredients from its winning recipe into their own retail operation.

There are 8 lessons from Amazon that retailers can incorporate into their strategies.

Lesson #1: Form a complete view of the customer experience

Remember when retail involved a customer entering a shop, money changing hands and the transaction being recorded in a ledger or till? Since the mid 20th century, the complexity of retail has been mounting, and it continues to mushroom as technological growth accelerates.

Customers search, browse, compare, purchase, return, review and recommend using a range of devices and channels, both offline and on. Each action forms a data point that adds to that customer's "digital exhaust"—a cloud of informational atoms that retailers must capture and analyze to remain competitive.

For many retailers, there is simply too much data to take on board. Metrics like sessions, share and sales along with qualitative feedback through real life or social channels are workload enough.

Amazon, by contrast, takes a holistic view, noting each customer's buying habits, purchase history, frequency and quantity of spend and many more variables. By doing so, it can identify, acquire and retain profitable customers while minimizing the impact of detrimental ones. Each customer is considered on a whole-life basis, from the development of initial loyalties to the emerging needs that come with new life stage—such as a home purchase, parenthood or retirement.

Data is the new oil—it needs to be extracted, processed and refined to be turned into something useful.

Dr. Andreas Weigend
former Chief Scientist at Amazon.com

Lesson #2: Automation + human insight = success

Amazon successfully triangulates within massive and messy data sets to arrive at its strategy. Both the landscape and their approach evolve and change moment to moment. And all of this is happening across thousands of transactions a minute. How do they do it?

In the New York Review of Books, Garry Kasparov shared observations on a remarkable freestyle chess contest in which two amateur chess players used basic computers to successfully overpower the chess machine Hydra. Their victory proved that even an unremarkable player can succeed, providing they have the skill and understanding to work effectively with a machine.

Even a basic modern computer has the power to "think" through vast quantities of data and come up with logically sound responses in moments. But it takes a human mind to complement this power with lateral thinking and insight, the better to aim and deploy it in the right place at the right time.

The same is true in online retail. Amazon has learnt that the combination of AI, with its speed, precision and logical consistency, along with human judgement and reasoning, make a force more powerful than the sum of its parts.

The art of knowing what to automate and when is something that comes through practice, observation and iteration. However, some general principles hold true—automate the repetitive, the trivial and the predictable, and leverage the virtues of speed and precision where they are most valuable to you.

Lesson #3: Focus on actions and measures

Amazon's reinvention of retail management hinges on pragmatism. What can be acted on is measured. If it is not actionable, it is ignored. By the same token, actions are driven by measures, not the other way around. While other businesses are poring over past failures and successes, Amazon takes on board only as much as is useful for future improvement.

Data is only valuable if it helps you make a decision.

Dr. Barney Pell
artificial intelligence pioneer

DynamicAction empowers us to make decisions and take action quickly and promptly as a merchant team. I look at opportunities across all functional areas to pick the opportunities that make the most sense at that point in time.

Retail Web Analytics Specialist

A crucial lesson for retailers is to focus their metrics and analysis efforts only where they are practically useful. Examining data about bounce rates or abandoned baskets is only helpful if you know what action to take as a result. Often, one metric alone doesn't give a clear picture. By triangulating more than one data "clue," you can piece together a hypothesis about what may have happened, and then devise a way of testing it.

Adding a data "detective" to your team is a fantastic way to enhance your business long term and develop a more strategic approach. Someone who can ask the right questions and look at your data from a range of different angles will soon have valuable suggestions. But it's also important to empower that person and build a culture of data-led action to support them. A total shift in mindset, rather than a bolt-on to your existing business, is where the real value lies.

Lesson #4: Iterative improvement

"Fail fast" is a Silicon Valley mantra that's very much in line with Amazon's "celebrate waste" philosophy. At the heart of both mottos is a thirst for improvement and a belief that a new and better version of everything is just around the corner. What you waste, get wrong, or miss out on is an opportunity to put things right.

If each failure is a signpost indicating the way towards improvement, Amazon is a world of seeking failure in pursuit of success. Algorithms, workflows and processes are continually observed and refined in order to fine-tune their performance. The same can be applied to any business, whether the "waste opportunity" is observed via data trends or human eyeballs.

Lesson #5: Forget average, focus on weird

Amazon recognizes that managing AI and automation is about "anecdotes and outliers."

Rather than focusing on averaged, generalized results, the attention of Amazon's analysts is fixed on the anomalies and outliers. The unexpected events that sit outside the curve are the ones that hold the promise of improvement. In the Amazon mindset, it's well worth taking a deep dive to really understand the root cause, which in turn can feed into the critical feedback loop for improving the company's AI solutions.

Solving the data problem is an overarching problem in big data analytics that retailers are desperately looking to solve. How can data be used to improve operational efficiency? This software provider has cracked the big data enigma to enable retailers to gain organizational omnipresence, recapture profits hidden behind operational efficiencies and get to action faster.
Frost & Sullivan

Lesson #6: Make marginal gains

The little things add up (just ask a professional cyclist). Amazon exerts control at an incredibly granular level, using its near-omniscient data capabilities to manipulate prices and promotions. Not only does every SKU have its price adjusted to get the right trade-off of price competitiveness and profitability; such adjustments are made multiple times an hour. It's an impossibly fast and intricate engine of data that knows whether the green mouse-mat should be priced higher than the black one or vice versa at any hour of the day or night.

You may not be in a position to micro-manage customer experiences or benchmark and adjust prices at the speed of sound, but optimising the details and eliminating small inefficiencies can benefit both your bottom line and your customers' experiences. Only looking for short-term, big impact improvements at the expense of small gains is selling your business short.

Lesson #7: Capitalize on bricks-and-mortar

If you have a store, you're one up on Amazon already. A physical retail space offers advantages that online retail simply can't emulate, but it comes with risks, too. The overheads involved in leasing, fitting and staffing a store mean that it needs to earn its keep through significant sales and footfall.

Fortunately, you can interlink your digital and data-led thinking with your physical store's operation. Returns, for example, should be possible across both modalities, while customers who have purchased online should experience a smooth transition from screen to store through consistent branding and product ranges. A CRM system that captures both online and offline interactions can be invaluable for handling website enquiries over the phone or in person.

Beyond that, a physical store has a huge experiential advantage. Customers can see, hear, feel and even smell the products they are interested in, and they can ask questions of real people who work there. Your online retail platform can prompt store visits, both in general terms through banner ads or a store photo gallery page. While on a more granular level, you are able to guide the consumer within a product description that they are welcome to come into the store to discover a product's scent or texture (and maybe enjoy a coffee and a chat too.)

Before DynamicAction, there was a significant gap in the amount of data that was available and our ability to act on it. DynamicAction combines our data sets, performs analysis and empowers merchandisers to take action. It eliminated a lot of the steps that we were having to take previously, driving the most critical insights and then prioritizing the most powerful profit actions as a result of it.

Ken Seiff
Former EVP, Direct and Omnichannel

Lesson #8: Look at the long-term profit horizon

Amazon's view of profit is a bit like that of a seasoned investor. It's not worried about short-term fluctuations or losses, and its feathers aren't ruffled by competitors with short boom-bust trajectories. Whether it is raking in the record profits of Prime Day 2017 or taking a hit on the Fire phone, Amazon is happy... provided that when the camera pans right out to the very broadest perspective on its long-term figures, the profit line is trending upwards.

Whether you love or hate Amazon, there's no denying its formative influence in retail. A dotcom that grew into a dominating force, it has blazed trails in customer experience, data-driven strategy and the mysterious art of behavioral marketing. The good news is, there is a lot that retailers can learn from Amazon in order to take advantage of their own data and assets.

Read more from Michael Ross and download other helpful resources at *dynamicaction.com/resources.*

We also welcome you to reach out and discuss your unique challenges at *dynamicaction.com/contact/ demo.*

About DynamicAction

DynamicAction is a retail analytics guidance system that leverages cloud software and a proven success program to catalyze the new customer-first operating mindset in retail. We empower retailers with a clear path to navigate their transformational journeys with AI-powered metrics.

It enables faster, better decisions to deliver profit, analytics and visualizations for immediate insights,prioritized opportunities and prescribed actions to take online and in-store.

Retailers across the globe rely on DynamicAction's advanced analytics and best practices to holistically run more efficient organizations and uncover their most profitable customers.

Forrester Research recommended DynamicAction as the key prescriptive analytics technology to replace predictive analyticsin retail, and the National Retail Federation rewarded DynamicAction for its ability to "significantly improve or radically alter how retailing is done."

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