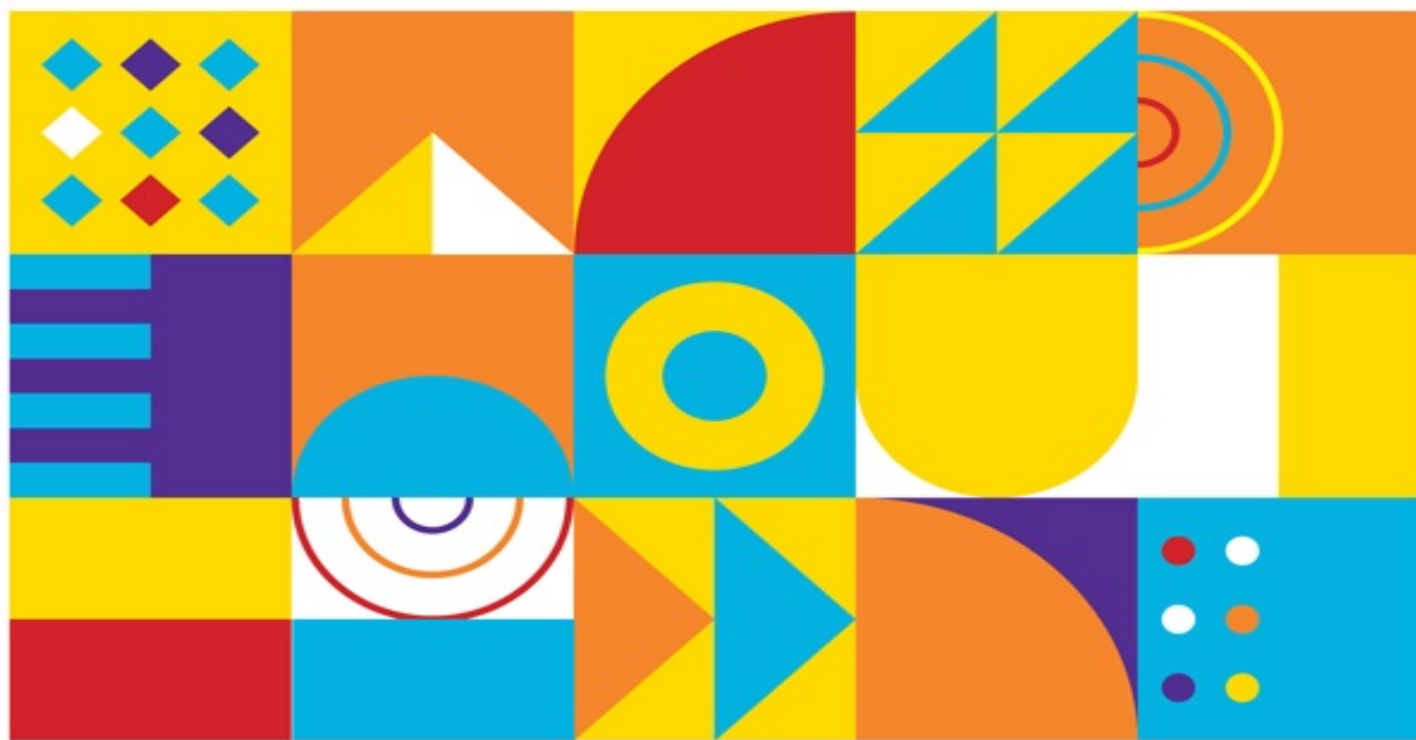




The AI Marketing Canvas

A Five-Step AI Plan for Marketers

Rajkumar Venkatesan and **Jim Lecinski**

Second Edition

STANFORD BUSINESS BOOKS

PRAISE FOR

The AI Marketing Canvas

“Strategic marketing drives growth that can only be achieved by delivering truly customer-centric experiences. Marketers now must harness the power of AI and data to scale experiences that convert; this book gives you the foundational knowledge, framework, and inspiration to do just that.”

—Christina Bottis, chief global marketing officer, Mural

“AI is something every marketer thinks they need to use but don’t really know why. *The AI Marketing Canvas* does a phenomenal job of demystifying this burgeoning capability and laying out actionable plans that allow AI to be a key differentiator that sets your brand apart. It is a must-read for any marketer who seeks real disruption.”

—Andrea Brimmer, chief marketing and public relations officer, Ally Financial

“This is a must-read book for business leaders who want to truly understand the impact AI will continue to have on companies and brands that want to leverage customer centricity as their North Star in driving growth. It is a smart, pragmatic, tool-kit-filled playbook that allows the reader to turn best-practice learnings into implementation moves—now!”

—Scott Davis, chief growth officer, Prophet

“The authors not only make the case that AI-driven marketing is critical but also provide a practical and inspirational primer on how marketers can make it work for their business. This book will get any marketer both excited and prepared for the possibilities of AI marketing and eager to jump in!”

—Kelly Gillease, former chief marketing officer, NerdWallet

“Whatever step you’re on in your marketing evolution and digital customer journey, learn how to unlock the value you have already captured using AI to supercharge impact. This powerful yet digestible book gives you a step-by-step guide to take stock by asking the right questions, laying a foundation, and getting started on execution. Build a road map, demonstrate success, and get the support and investment you need.”

—Brett Groom, senior vice president of marketing, PT Solutions

“Over the next ten years, AI and machine learning will transform marketing in ways far more profound than previous technology revolutions. For marketing leaders, recognizing the shift isn’t enough. You have to act. This book provides a practical road map for getting started and for building sustainable advantage in the face of disruptive change.”

—Matt Lawson, chief marketing officer, Hiive

“Through real-world, evidence-based research, Raj and Jim clearly demonstrate that successful implementation of AI and machine learning is going to result in ‘winner-take-all’ scenarios. This book is a critical read to ensure that your brand ends up on the right side of that equation—the framework and practical applications that are provided will be additive whether you’re at the beginning of this journey or well on your way.”

—Joe Maglio, chief executive officer, McKinney and Co.

“This book is a wonderful articulation of the challenges and opportunities facing the modern chief marketing officer. Raj and Jim provide a thorough and anxiety-reducing road map, with tangible examples on how to integrate artificial intelligence and machine learning into a marketing organization’s business strategy.”

—Jim Stadler, chief marketing officer, Old National Bank

“Never has it been more important for marketers to harness the power of AI and machine learning to deeply know, personalize, and engage customers. Raj and Jim make the case that AI is not only critical to delivering customer-centric durable growth but also potentially imperative to business survival. This is an essential guide, chock-full of insights and examples, for today’s modern marketer.”

—Jon Suarez-Davis (jsd), chief commercial officer, super{set}

“This is a book that sorts out the signal from the noise while providing actionable road maps on how AI can be understood and leveraged for business and marketing. Business leaders should read this book to gain a competitive advantage.”

—Rishad Tobaccowala, senior advisor and former chief strategist, Publicis Groupe, and author of *Rethinking Work*

“Providing a great loyalty experience is about creating truly personalized customer relationship moments throughout the entire customer experience. And loyalty is challenging to engender and difficult to maintain! Raj and Jim give us the AI blueprint on transforming organizations into customer-centric powerhouses.”

—Chris Wayman, chief growth officer, Merkle

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SECOND EDITION

Rajkumar Venkatesan and Jim Lecinski

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This book is dedicated to all professional marketers, and those students aspiring to become marketers, who work tirelessly every day to drive profitable incremental growth, to build long-term brand equity, and to be a force for good in the world, and who are now wrestling with how to achieve these goals in the rapidly changing world of marketing, customers, and AI technology.

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Notice to Readers

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Foreword to the Second Edition

Several years ago, the two of us—in our roles as MBA marketing professors and marketing industry consultants—began to notice an emerging trend: leading marketers were increasingly able to harness the powerful combination of large datasets and a type of artificial intelligence (AI) known as machine learning to supercharge their marketing efforts. We were seeing marketers start to think about the critical questions to be answered—Who should we target? What should we say about our product? How should we price it? Where should we run the ads?—more as *probabilistic* than *deterministic* questions. That is, what is *most likely* the best group of people to target rather than what *is* the best group of people to target. Computational methods that could analyze large amounts of data were beginning to help marketers think this way, making increasingly accurate predictions and thereby improving marketing results and impact.

We believed this use of artificial intelligence could be a real breakthrough *if* marketing leaders and teams could understand how AI works and know how to actually implement it successfully. Was there a best practice that we could share with the marketing industry? To answer that question, we talked to dozens of companies to understand the best route to go from zero to hero with AI in marketing, and we identified a clear pattern that we formalized as the eponymous five-step road map, the AI Marketing Canvas. This road map was the centerpiece of the first edition of this book. We are grateful to all the marketing industry leaders who sparked our framework and have used it to map and begin their brands' journeys with AI in marketing.

In the time since we wrote the first edition, there have been many advancements in AI technology itself, and many more marketers have now experimented with implementing it into their marketing tool kit. There are many more stories, examples, use cases, and results.

Most notably, when OpenAI's ChatGPT tool publicly launched in November 2022, an important second flavor of AI became commercially available to marketers: generative AI. Machines now had the ability to not

only analyze large datasets and make predictions but also generate outputs in the form of text, images, sounds, code, and even video. This second flavor of AI grabbed marketers' attention. Very quickly, they began asking us how they could, or should, be using generative AI and how to get started. Marketing conference presentations, trade industry articles, and LinkedIn posts were suddenly flooded with examples and advice—some of it excellent but a lot of it questionable, in our opinion.

We therefore knew it was time for us to provide marketers with an updated edition of *The AI Marketing Canvas* that addressed these exciting changes and offered an updated plan for how to implement AI in marketing. Readers of our first edition will see that our five-step canvas remains the bedrock framework of this second edition, as it continues to be the best practice for how to implement AI. We've added many new case studies and examples of brands doing exciting things with AI in marketing. And we've added sections about generative AI, agentic AI, the risks of using AI in marketing, and what to know about AI's impact, results, and benefits—all in a manner that we hope you find practical, straightforward, and highly useful.

It's our pleasure to present you this second edition of *The AI Marketing Canvas*!

—Rajkumar Venkatesan (Charlottesville, Virginia)

—Jim Lecinski (Evanston, Illinois)

PART 1

THE CHALLENGE AND THE SOLUTION

1

Introduction

“A journey of a thousand miles begins with a single step.”
—Chinese proverb

On February 4, 2025, a cool sunny Tuesday morning in New York City, Stéphane de La Faverie, chief executive officer of the Estée Lauder Companies (ELC), held an important earnings call.¹ Just thirty days prior, he had begun his tenure as chief executive of ELC, the global beauty company that manufactures and markets many well-known prestige skincare, makeup, fragrance, and hair care brands, such as Aveda, Clinique, Origins, MAC, and, of course, Estée Lauder.

This was a critical moment for de La Faverie and the company because ELC had just reported a 6 percent drop in organic net sales for the second quarter of its fiscal year 2025. That was a wake-up call for the company in an increasingly competitive beauty market. Therefore, expectations were very high for what de La Faverie would say that morning to turn things around and return ELC to growth.

On the earnings call, de La Faverie admitted, “We lost our agility. We did not capitalize on the higher growth opportunities quickly enough.” Therefore, to improve the company’s trajectory, he unveiled a new plan to restore sustainable sales growth called “Beauty Reimagined.”²

The Beauty Reimagined plan focused ELC’s efforts on several high-priority initiatives, including increased spending in advertising and marketing, rapid innovation, and a leaner organizational structure. But at the heart of the plan was a bold commitment to dramatically scale the integration of artificial intelligence (AI) across the organization, particularly in marketing.

“We are ready to hardwire AI through the organization,” de La Faverie emphasized, highlighting AI’s potential to target consumers more effectively and unleash greater creativity within brand teams. Specifically,

ELC planned to apply AI to improve consumer targeting and personalize messaging on a global scale, ensuring that the right advertising and content reach the right consumers at the right time.

Shortly thereafter, ELC announced a major strategic partnership with Adobe to adopt its Firefly suite of AI tools, enabling its brand teams to develop even more engaging and effective campaigns faster.³ ELC creative teams will be able to spend less time on repetitive tasks like versioning digital ads for different channels and formats (Adobe's Firefly AI will handle that), freeing them to focus on more strategic tasks such as ideation and new campaign development.

ELC's strategic pivot toward AI underscores a critical truth in today's business and marketing landscape: AI is no longer optional; it's an imperative.

As investor Mark Cuban bluntly stated during a fireside chat with AI expert Shelly Palmer at the 2025 Consumer Electronics Show in Las Vegas, "Those who are great at AI are going to win." Cuban, never one to mince words, has often emphasized the universal importance of AI. In a CNBC interview, he declared, "There are only two types of companies in this world: those who are great at AI and everybody else. If you don't know AI, you are going to fail. Period. End of story. [If] you are an employee, you're going to have to understand how it impacts your job or how you can use it to be better at your job. If you're a student, the same thing, and if you're a CEO, you can't just say, 'OK, I'm going to get my tech guys to understand it and educate me on it.' You have to understand it because it will have significant impact on every single thing that you do."⁴

That stark assessment might seem dramatic, but the evidence is mounting. The shift from a supply-driven to a demand-driven economy—fueled by digital transformation and the rise of tech giants like Amazon, Google, Meta, TikTok, and others—has irrevocably changed consumer expectations. Personalization, once a differentiator, is now the expected baseline. Consumers expect brands to know them, anticipate their needs, and deliver seamless, personalized, tailored experiences across every touchpoint.

This demand for personalized experiences at scale far outstrips human capacity to create and deliver these experiences. Consider the sheer volume of data generated by consumers across digital channels—every click, every search, and every interaction leaves a digital trail. For marketers to

effectively leverage this data to create truly personalized experiences, they need a powerful ally. That ally is AI.

But AI can do much more for marketers than create personalized ads and experiences. AI and machine learning are the engines that will power the next generation of marketing success. These technologies excel at analyzing vast datasets, identifying patterns, and generating actionable insights and creative assets that would be impossible for humans to uncover and develop manually. This allows marketers to do the following:

- **Understand customer behavior with unprecedented depth.** AI can sift through mountains of data to reveal hidden patterns and preferences, allowing marketers to segment audiences with laser precision and tailor messages that resonate on an individual level.
- **Personalize experiences at scale.** AI can dynamically adapt content, offers, and recommendations in real time, ensuring that each customer receives a unique and relevant experience across all touchpoints.
- **Automate repetitive tasks.** AI can free up marketers from tedious manual tasks, such as data entry, content tagging, and campaign scheduling, allowing them to focus on more strategic initiatives.
- **Optimize marketing spend.** AI can analyze campaign performance data to identify the most effective channels and strategies, maximizing return on investment (ROI) and ensuring that every dollar is spent wisely.

The benefits of AI in marketing are not just theoretical; they are being realized today by leading marketers across industries.

Consider CarMax, America's largest used car retailer. While the majority of auto sales still occur in physical stores, the customer journey increasingly begins online. [CarMax.com](https://www.carmax.com) applies AI to personalize the online experience, dynamically adjusting images and text on the basis of individual search behaviors. This ensures that customers are presented with the most relevant and desirable inventory, reducing cognitive overload and creating a smoother, more enjoyable research process.

CarMax understands that it is not just competing against other car retailers; it is competing against the best digital experiences consumers have across all industries. This is a crucial point. Consumers have come to expect a certain level of personalization and relevance in all their digital interactions, and brands that fail to deliver that risk losing customers to competitors that do.

Think about the Starbucks app, a prime example of how AI can enhance the customer experience. It not only allows you to personalize your order down to the finest detail but also proactively recommends new drinks and

food items according to your past preferences and purchase history. This level of personalization, powered by AI, is what sets leading brands apart.

But AI isn't just transforming *external* customer experiences; it's also revolutionizing *internal* marketing operations. Mondelēz International—the maker of Oreo, Cadbury, Milka, Ritz, Toblerone, and many other famous food brands—is leveraging AI *internally* to empower its marketing teams. It is building “generative AI brains” that help its marketing teams identify new customer insights, test new ideas, generate content at scale, recommend changes to improve performance, and optimize channel allocations. This internal application of AI allows Mondelēz to streamline workflows, enhance decision making, and, ultimately, drive better marketing outcomes.

The evidence clearly shows that marketers who adopt AI are reaping significant rewards. A recent Gartner study revealed that high-performing marketing organizations—those who were 1.3 times more successful in overachieving year-on-year profit-growth margins—are integrating AI at a faster pace than their peers.⁵ Of those organizations that have adopted AI, 77 percent use it for creative development and 48 percent use it for strategy development. These numbers rise to 84 percent and 52 percent respectively for high-performing organizations. Clearly, there's a strong correlation between AI adoption and marketing success.

Yet, despite the clear advantages and the growing urgency, many brands are still hesitant to embrace AI. Another recent Gartner survey revealed that 27 percent of marketing organizations have limited or no adoption of generative AI (also known as GenAI) in their campaigns. “Many believe GenAI will transform marketing, but, despite the hype, many CMOs feel that their GenAI investments have yet to pay off,” said Suzanne Schwartz, senior director analyst in the Gartner Marketing Practice.⁶

This hesitation is understandable. Implementing AI requires investment, experimentation, and often a significant shift in organizational mindset. There are also substantial risks that we will discuss. And proving ROI can be challenging. But in the other ROI—the “risk of ignoring”—the cost of inaction is far greater. As the AI landscape continues to evolve at an accelerating pace, brands that cling to outdated methods and mindsets—and therefore delay AI adoption—risk falling irrevocably behind.

The good news is that it's not too late. While some organizations are further along in their AI journey, every marketer can and should begin

incorporating AI into their tool kit today. Whether you're a big brand or a small brand, business-to-business (B2B) or business-to-consumer (B2C) company, based in the United States, Latin America, the European Union, Asia-Pacific, or anywhere in between, the AI marketing opportunity is there for the taking.

But the clock is ticking. As the cowboys used to say in those old Western movies, "We're burning daylight."

The challenge for marketers is to understand what AI is, how and where to apply it, and then how to get started—what to do first, then next, then next. Mastering all of that, however, is not easy, especially for most marketers, who do not have a computer science or technical background.

Helping you master this AI challenge—teaching precisely where and how to implement AI in your marketing tool kit—is the goal of this book. We will guide you through the process of integrating AI into your marketing strategy, step by step, providing practical advice and real-world examples along the way.

2

Navigating This Book

“To see the whole picture, you need a map.”

—Mariner’s proverb

The book is divided into four parts containing a total of sixteen chapters, which lay out all the concepts and structures we think you’ll need to be productive and successful as a marketer leading AI and machine-learning initiatives in your organization.

[Part 1](#), “The Challenge and the Solution,” has a twofold purpose. The first and third chapters, “Introduction” and “The AI Marketing Canvas,” were designed to give you a thirty-thousand-foot view of the core concepts of this book. This chapter, “Navigating This Book,” provides a thorough overview of the concepts we’ll be covering. Don’t need or want this overview? Feel free to skip right to [chapter 3](#). If you want to know all that we have in store for you, however, read on.

[Part 2](#), “AI Essentials for Marketers,” is composed of three chapters that provide the foundational knowledge and vocabulary you need to make the best use of [parts 3](#) and [4](#) of this book.

In [chapter 4](#), “AI and Machine Learning,” we’ll equip you with the vocabulary and knowledge about AI and machine learning that you need to communicate successfully with your data science team and technology vendors. You’ll learn the categories of machine learning, as well as a bit about neural networks and deep learning. We’ll conduct a brief review of data and analytics. Finally, we’ll give some examples of when to use what in machine learning so you have context for all of this information, whether it’s new to you or a review. Whatever you do, please don’t skip this chapter. You will need this vocabulary to move forward and have constructive conversations with your data science contacts. Know that we worked hard to make it not just easy to read but also as interesting and relevant as possible, by including many brand-and marketing-related examples.

In [chapter 5](#), “Generative AI and Agentic AI,” you’ll learn about a second type of AI—generative pretrained transformers, which can generate a variety of outputs from inputs you provide them, combined with what they already know about the world (i.e., what they have been pretrained on). This type of AI first burst onto the consciousness of most marketers when OpenAI introduced its ChatGPT model and interface in November 2022. Here we’ll talk about how these models work, what they can do well, and what they struggle with, all with a curated viewpoint of what marketers need to know to make the most of these generative models. Also in this chapter we’ll discuss a type of AI called agentic AI, in which AI possesses a degree of autonomy and can act independently to achieve goals. Agentic AI goes beyond simply following preprogrammed instructions; it can adapt, learn, make decisions, and even take actions on its own.

In [chapter 6](#), “The Four Marketing-Use Cases for AI,” we’ll build upon what you’ve learned about the types of AI and show you a structured way to apply AI to marketing. Sure, you likely are aware that AI can increase productivity and make you more efficient as a marketer, saving time and money. However, that’s just one of the ways you can apply AI. We’ll cover the four marketing-use cases you need to know in this chapter.

[Part 3](#), “The AI Marketing Canvas: Your Five-Step Plan,” provides an overview of the canvas, then walks you through each of the five steps. Each chapter features brand-focused examples of what AI looks like when applied to the different customer relationship moments at that particular step. In [chapter 7](#), “Elements of the AI Marketing Canvas,” we’ll introduce the canvas framework that consists of the five steps—foundation, experimentation, expansion, transformation, and monetization—across four customer relationship moments—acquisition, retention, growth, and advocacy—and explain how best to put the canvas to use.

In [chapter 8](#), “Step 1: Foundation,” we’ll continue the conversation by zeroing in on the description and key questions specific to the foundation step. Foundation is about building digital infrastructure by collecting first-party data across the business—enough quality data to begin training machine-learning models and supercharging customer relationship moments.

[Chapter 9](#), “Step 2: Experimentation,” is about finding marketing activities that could be empowered with AI for some quick learning and using AI-powered tools from third parties and vendors to get some quick

outcomes in a few marketing activities. We'll also ask you to consider a new way of working: taking an Agile approach to getting AI and machine learning into your firm. (Don't panic. We'll provide an overview of what that process might look like in your culture.)

Up next is [chapter 10](#), "Step 3: Expansion," which is about using AI across a broader set of marketing activities and beginning the process of insourcing some development and capabilities. We'll introduce the critical role of the AI marketing champion and provide some thoughts on how to develop an AI marketing team. We'll also show you the importance of quantifying the impact of the experiments you are doing in step 2 so you can make a strong case for the additional budget you'll eventually be requesting. A big part of step 3 will be your efforts to design campaigns, run them, and evaluate and learn from the results so you can do more of what is working and less of what isn't (along with documenting the stuff that does work for your future business case).

[Chapter 11](#), "Step 4: Transformation," is about using AI to automate across a complete set of marketing activities in one customer relationship moment or more deeply in one or two moments. At this point, most of your AI and machine-learning capabilities should be in-house; or, if you are using a partner, the development of the model should be under your (i.e., marketing's) control. At this point, we'll ask you to consider whether your firm should buy a company with existing expertise or build its own in-house. We'll outline a typical process for pitching one or the other, along with a helpful form you can fill out to gauge which direction is right for you.

In [chapter 12](#), "Step 5: Monetization," we'll cover how you may be able to use the proprietary models you've developed, either by building in-house or by buying a company to drive new revenue streams and/or new business models, to serve external customers as a platform. Caveat: Not every brand or firm will want or need to go to step 5, as we will discuss.

Then [chapter 13](#), "Three Brands' AI Journeys," shares the AI transformation stories of CFA Institute, Yum! Brands, and Flipkart so you can get a sense of the multitude of efforts, experiments, successes, and challenges that they have experienced in their journeys to become AI-powered brands.

Each of these chapters concludes with a helpful checklist and summary to help anchor the information and make the concepts imminently actionable.

(At the end of the book, we'll also provide a diagnostic tool that expands on the questions raised at each step of the canvas.)

[Part 4](#), “Leading the AI Transformation,” addresses the inevitable obstacles you will face in getting AI and machine learning into your firm. It also highlights the tremendous opportunities that AI and machine learning offer in their ability to do the heavy lifting so you can focus on increasing the quality and frequency of actual human-to-human connections with consumers.

In [chapter 14](#), “Change Management,” we'll address the reality of change through the lens of how even Google had to make this shift to AI and machine learning, first technically and then culturally. We'll show you how Google leaders followed John Kotter's change model by creating the climate for change, engaging and enabling the organization, creating short-term wins, and then reinforcing the new direction. We'll provide some guidance on how to facilitate these changes, which must happen across multiple dimensions: people, process, culture, and profit.

[Chapter 15](#), “Self-Assessment,” offers real guidance in the form of a diagnostic tool you can use to gauge where you are on the canvas (steps 1 through 5). You'll also learn what gaps and challenges you can expect, and how to prepare for them so you can mitigate or overcome them.

Finally, in [chapter 16](#), “A Call to Action,” we'll address how all of this impacts you personally, and we'll provide some guidance on ways to move forward wisely. We'll also point you to some next steps, including a list of things you can do right now to forward the action and enhance your career. And most important, we'll wrap up with some thoughts from a few marketing and business leaders on how your brand could—and, we argue, should—embrace the potential to use AI to nurture and enhance humanity.

These aspirations may seem noble, even lofty, but they are achievable. It all begins with your commitment to a strategic marketing approach that puts the customer at the center of everything, and the creation of a digitally driven business that maximizes the advantages that AI and machine learning have to offer. Interested in learning the solution to this big challenge? We thought so. Let's dig in.

3

The AI Marketing Canvas

“We are in a rare position to create change. To reinvent what it means to be a marketer. This is your chance to be a pioneer. Don’t wait for the marketing world to get smarter around you. Take the initiative now to understand, pilot, and scale AI.”

—Paul Roetzer, founder, Marketing Artificial Intelligence Institute¹

Chapter 1 established an undeniable reality: artificial intelligence is no longer a peripheral or optional innovation in marketing—it is now the driving force behind competitive advantage. Big picture: Research from the McKinsey Global Institute projects that by 2030 AI could deliver additional global economic activity of around \$13 trillion, or about 16 percent higher cumulative GDP compared with today.² This amounts to 1.2 percent additional global GDP growth per year!

To fully appreciate AI’s role in modern marketing, we must take a quick step back to examine how marketing has evolved (figure 1). How did we get here? The history of marketing approaches can be categorized into three distinct waves:

■ **Wave 1: Mass Marketing and Segmented Marketing (1940–2000).** Marketing in this era relied on broad, generalized messaging through mass media channels. While segmentation allowed for improved targeting, personalization remained limited and static. Use of data was limited in informing and executing marketing campaigns.

■ **Wave 2: Data-Driven Marketing (2000–2020).** The advent of digital marketing, with megabytes of online data, enabled greater segmentation, real-time data analysis, and audience refinement. In this wave, marketing decisions were largely based on structured, rules-based (if-then) logic. For example, *if* a customer has not purchased in the past three months, *then* send an email with a “we missed you” message and a 10 percent off coupon.

■ **Wave 3: One-to-One Personalized Marketing (Now and Future).** AI ushers in an era of dynamic personalization in which marketing no longer relies solely on predefined rules. Instead, using terabytes or even petabytes of data—most important, your own internal company data—it is able to adapt dynamically on the basis of machine learning and predictive analytics in real time. AI further allows optimal assets to be dynamically generated and delivered to consumers according to their individual recent behaviors. For example, Customer A received an offer, opened but didn’t click; Customer B received the same offer, opened but didn’t click. Now an AI-powered system (like an advanced customer data platform) can determine the right next best message, offer,

channel, and timing for each customer; create and send the messages; track results; and further optimize this loop once again.

These three waves illustrate the evolutionary trajectory of marketing, from its original fully bespoke “artisanal” approach of mass and then segmented communications to the “algorithmic rules” approach of digital marketing and now to the machine-driven predictive and generative approach of AI-powered personalized marketing. This third wave is the world marketers are now living in.

Yet despite widespread recognition of this evolution of marketing and AI’s transformative potential in wave three, many marketing leaders remain frozen, unsure of how to translate awareness into meaningful action. They are confronted by the sheer complexity of AI technology itself—let’s face it, most marketers do not have computer science backgrounds—compounded by the daunting challenge of integrating AI into long-standing marketing structures.

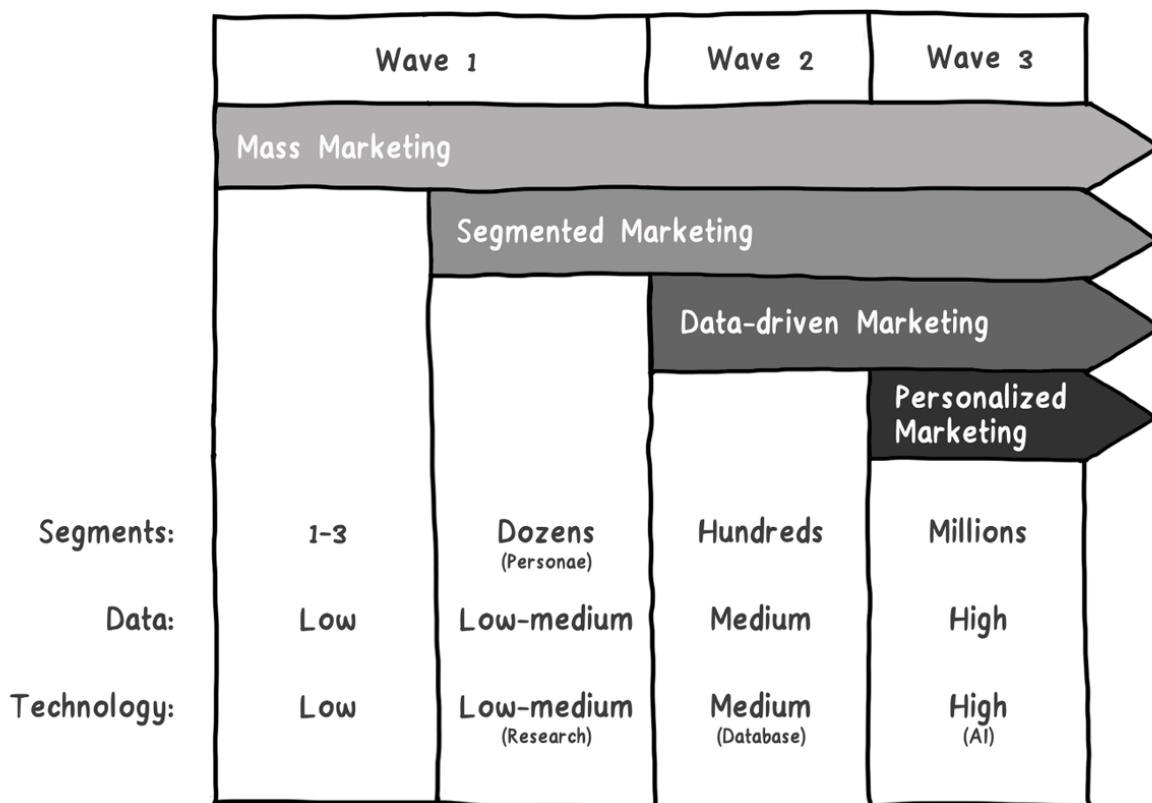


FIGURE 1. The long-term evolution of marketing

Thus marketing finds itself as an industry in this situation: most leaders acknowledge AI’s capacity to enhance efficiency, optimize personalization,

and generate deeper consumer insights, yet few possess a structured, strategic framework to guide its adoption. Instead of a clear road map, marketers face a tangled landscape of emerging tools, shifting best practices, questionable advice from self-proclaimed “AI experts”—all against the backdrop of mounting pressure to deliver measurable results and the dreaded chief financial officer directive: “We need marketing to do more with less.”

A STRATEGIC PATH FORWARD FOR MARKETERS

We see the challenge as threefold. First, although the capabilities of AI are well-documented, the process of incorporating AI into marketing organizations remains murky. The field is crowded with abstract theories, disconnected case studies, and vendor-driven hype, but what is missing is a concrete, step-by-step implementation strategy.

Second, traditional marketing structures were not designed to accommodate AI’s speed and automation. Legacy processes—often built around intuition, experience, and periodic campaign-based planning—struggle to adapt to AI’s continuous, real-time optimization. As a result, leaders wrestle with embedding AI into their workflows in a way that aligns with broader business objectives.

Finally, organizations face difficulties in quantifying AI’s impact, leading to hesitation and incomplete adoption. Without clear metrics and an understanding of AI’s true value, many companies delay investment or implement AI in a fragmented, ad hoc manner, missing out on its full potential.

To address these challenges, we introduce as the solution the AI Marketing Canvas, a structured, five-step framework we designed to help marketers methodically adopt AI, ensuring that implementation is neither overwhelming nor directionless. Instead of a scattered approach driven by technology hype, the AI Marketing Canvas offers marketers a strategic road map, guiding organizations through an intentional and results-driven process that meets them where they are today and helps them evolve into fully AI-powered marketing functions.

THE AI MARKETING CANVAS: FIVE STEPS TO AI-POWERED GROWTH

We'll dive deep into the canvas in [part 3](#) of this book, but at its core, the AI Marketing Canvas provides a step-by-step process to move from awareness to action, from pilot projects to scaled AI transformation—to help you go from zero to hero with AI in marketing ([figure 2](#)). Inspired by the Business Model Canvas, this framework has been developed through extensive research, interviews, and real-world observations of how leading brands are successfully leveraging AI. There are five sequential steps of the AI Marketing Canvas:

1. **Foundation:** Establishing the strategic and operational groundwork for AI adoption, including data infrastructure, team readiness, and business alignment
2. **Experimentation:** Identifying and testing AI-use cases that show early promise, refining processes, and evaluating impact
3. **Expansion:** Scaling successful AI-driven initiatives across different functions and marketing channels
4. **Transformation:** Reshaping marketing workflows, talent strategies, and decision-making frameworks to fully integrate AI
5. **Monetization:** Measuring and maximizing AI's impact on marketing return on investment (ROI), ensuring a long-term competitive advantage

		AI ACQUISITION	AI RETENTION	AI GROWTH	AI ADVOCACY
STEP 5 MONETIZATION 	AI to drive significant new revenue streams and/or new business models. Serve external customers as a platform.				
STEP 4 TRANSFORMATION 	AI to automate complete sets of marketing activities across the full customer journey. Strong in-house competency required - "Build or buy."				
STEP 3 EXPANSION 	AI across a broader set of marketing activities. AI 'Marketing Champion' named. Efforts coordinated and in-house capabilities begin to develop.				
STEP 2 EXPERIMENTATION 	AI-powered tools from third parties and vendors to get some quick learnings/ wins at individual moments in the customer journey. "A thousand flowers..."				
STEP 1 FOUNDATION 	Prerequisite for doing any AI or machine learning.				

FIGURE 2. Overview of the AI Marketing Canvas

This framework is not theoretical; it reflects the recurring pattern we directly observed and documented in dozens of successful AI-driven marketing transformations at global brands, such as Coca-Cola, Ancestry, Starbucks, and many others. By following these five steps in order, marketers can confidently integrate AI in a way that enhances—not disrupts—existing strategies, ultimately unlocking new levels of efficiency, personalization, and business impact.

THE FOUR CUSTOMER MOMENTS THAT MATTER

While the AI Marketing Canvas provides a structured, strategic road map for the adoption and implementation of AI technology, its application must be customer-centric. It's not just about the tech—AI is not a stand-alone tool; it is a mechanism for enhancing a brand's customer relationships at every stage of the customer journey. For example, you are interested in using AI to personalize your brand's messaging—but to what end? What change in consumer behavior are you trying to effect?

To understand how and where AI changes customer interactions, we must examine what we call AI moments—the critical touchpoints where AI creates new opportunities for engagement, personalization, and loyalty. Historically, customer relationships followed a linear path—brands attracted attention, converted customers, and hoped for repeat business. AI has fundamentally altered this dynamic. Today, AI moments transform static customer journeys into fluid, data-driven, hyper-personalized experiences that evolve in real time. These moments can enhance acquisition, retention, growth, and advocacy, the four key pillars of customer journey management:

- **Acquisition:** AI refines audience targeting, optimizes media spend, and personalizes outreach in ways that traditional marketing could never achieve. Rather than relying on broad demographic assumptions, AI dynamically adjusts messaging, visuals, and offers on the basis of real-time consumer behavior and intent.
- **Retention:** AI-powered personalization allows brands to anticipate customer needs, proactively addressing concerns before they lead to churn. From automated customer support chatbots to predictive retention strategies, AI ensures that customers receive timely, relevant interactions that strengthen loyalty.
- **Growth:** AI-driven recommendation engines, predictive analytics, and upsell/cross-sell automation help brands identify opportunities to deepen customer relationships, leading to increased lifetime value and higher profitability.
- **Advocacy:** AI enables brands to analyze sentiment, identify high-value brand ambassadors, and amplify word-of-mouth marketing through automated engagement and personalized incentives.

To illustrate these moments, consider how AI has transformed the experience of joining a gym. In the past, a prospective member would see an ad, visit a gym, speak with a salesperson, and sign up. Today, AI-powered systems detect a consumer's interest in fitness from online behavior, dynamically personalize landing pages to match their preferences, recommend membership tiers based on data insights, and follow up with automated yet personalized email sequences.

This shift from traditional customer-journey management to AI-driven customer moments illustrates how AI is fundamentally changing marketing. We'll regularly refer back to these four moments throughout the book. It's OK if your organization has adopted a slightly different customer-journey framework. The takeaway is the same: AI transforms every moment in the path to purchase.

The AI Marketing Canvas ensures that AI implementation is not a fragmented series of disconnected experiments but a cohesive, high-impact strategy grounded in improving your customers' journeys. [Part 3](#) of this book will extensively describe all five steps of the canvas. But first, we need to cover the basics of AI technology that all marketers must understand.

PART 2

AI ESSENTIALS FOR MARKETERS

4

AI and Machine Learning

“I want you to be smart consumers of AI and analytics.”

—Rajkumar Venkatesan’s advice to his MBA students

Artificial intelligence (AI) is the capability of a machine to accomplish tasks in a “smart” humanlike manner, when the machine is a high-powered computer system equipped with the ability to process massive amounts of data quickly and accurately. (Of course, it’s not human; it’s artificial, thus the name “artificial intelligence.”)

AI is a broad term that has several different dimensions: rules-based expert systems, robotics, natural language processing, vision, speech, machine learning, and generative and agentic AI, to name a few. And while these dimensions of AI are distinct, today many of them are working in concert to achieve a specific outcome. Think of IBM Watson’s ability to beat out top champions on *Jeopardy!*—a landmark historical example we’ll describe in more detail later.

As the title of this chapter suggests, we will be looking at AI first through the lens of machine learning. That’s because it is the more classic flavor of AI—some would call it “OG AI”—whereas generative AI, which we will cover second, is a newer flavor of AI available for marketers to use.

If you’re reading this book, we’re betting you’ve read more than a few of the myriad articles on AI. You’ve likely also noticed that not everyone talks about AI in exactly the same way. But it’s important to really understand these definitions and use them precisely. In this chapter and the next, we aim to clarify those key technical concepts and provide you with the vocabulary critical to your ability to understand the capabilities and potential of AI machine learning and generative AI. Don’t worry—we won’t try to turn you into a computer scientist. We just want to give you the tools you need to communicate effectively with your data science team and be a smart consumer of technology so you can press AI machine learning

and generative AI into service to supercharge each and every moment of your customer journey—acquisition, retention, growth, and advocacy.

If you walk away with nothing else from these two chapters, make it this: when it comes to marketing, AI equals prediction and generation.

The classic machine learning flavor of AI delivers predictions that allow you to more confidently answer questions such as “Who is the best target?” “What should the message to them be?” and “Where should we place that message for best results?” You’re already doing all of this manually. The goal is to use AI machine learning to do it all better and faster so you can improve outcomes and create a competitive advantage!

Caveat: We have made some strategic choices about what information to include and what to omit, and about how deep to go on the basis of practical relevance and our experiences working with thousands of marketing managers. However, all of the information presented here is consistent with the more complex scientific and academic principles.

We’ll begin by providing you with a very brief historical context for the current state of AI, beginning in 1950, when the English mathematician Alan Turing published a paper asking the question, “Can machines think?” Next, we’ll define exactly what machine learning is and illustrate its different categories using the example of Airbnb. We’ll also define neural networks and deep learning, and then show you how machine learning assisted by neural networks and deep learning allowed IBM Watson to beat two champions on the television question-and-answer game *Jeopardy!* and enabled Google’s DeepMind product AlphaGo to beat the world champion in the abstract strategy board game called Go. (By the way, the latest for DeepMind is that chess and Go were child’s play; it now beats humans at multiplayer games as well.)¹

Speaking of questions, here’s one: Is machine learning different from statistics? We’ll clear that up for you. Finally, we’ll outline the key machine-learning techniques and how they are organized using their analytical objective, and then, through some examples, we’ll convey what they mean to you as a marketer tasked with making decisions about your brand. Our goal is to make this a critical nuts-and-bolts chapter you’ll actually enjoy reading.

ARTIFICIAL INTELLIGENCE: A BRIEF HISTORY

In 1950, the English mathematician Alan Turing published one of the earliest papers on AI, titled “Computing Machinery and Intelligence.” The paper began by posing the simple question, “Can machines think?” Turing proposed a method for evaluating whether machines can think, in the form of an imitation game. This game challenged a human interrogator to distinguish which response to the same question was given by a human and which was given by a machine, solely on the basis of the content of the responses and without physical clues. This method became known as the Turing test. Though imperfect, computer scientists continue to use the Turing test and various versions of it to explore questions that the field of AI seeks to answer.²

Another key moment occurred in 1956 when John McCarthy, a professor at MIT and Stanford University who is now widely recognized as the “Father of AI,” defined artificial intelligence as “systems that perform actions that if performed by humans would be considered intelligent.” Then, in 1958, McCarthy created Lisp, which became the standard AI programming language. Lisp is still used in robotics and other scientific applications, as well as in internet-based services such as credit card fraud detection and airline scheduling. Lisp also paved the way for voice-recognition technology, including Apple’s personal assistant application, Siri.³ Excitement around the new field of AI and the potential for sentient machines attracted large amounts of funding initially, and science fiction further drove up expectations. By the 1970s, however, a lack of specific goals for funding and failure to demonstrate the commercial value of AI led financiers to pull out, resulting in what became known as the “AI winter.”⁴

In 1981, Digital Equipment Corporation (DEC)—incidentally, the main hardware vendor for the AI community in the 1970s—started using R1, an “expert” system (also known as a rules-based system) primarily to assist in the manufacture of its VAX-11/780 systems. R1’s *input* was a customer’s order, and its *output* was a set of diagrams displaying the spatial relationships among the components on the order. These diagrams were used by the technician who physically assembled the system. A major part of R1’s task was to notice which components were missing and add them to the order, eliminating delays due to missing parts.⁵

An expert (rules-based) system is a form of AI because it uses knowledge acquired from human experts in the field to solve a specific problem. Although the results of expert systems were not as grand as financiers initially had hoped, these systems were successful commercially and brought funding back to the field. For example, by 1986 it was estimated that R1 had saved DEC an estimated \$40 million annually.⁶

AI research has advanced quite a bit since then, most notably in producing systems that have evolved from using sets of rules to guide outputs to being data-driven. Today, in fact, most dimensions of AI, including machine learning, are data-driven. The exponential increase in computing power (e.g., TPUs) and the decrease in computing costs (i.e., Moore's law) are key factors in the emergence of data-driven AI at scale.⁷

One important advancement in data-driven AI occurred in 2006 when the AI researcher Fei-Fei Li, then a professor at the University of Illinois at Urbana-Champaign, began work on a “computer vision” project that would become known as ImageNet. (Dr. Li is now a professor at Stanford and codirector of the Stanford Institute for Human-Centered AI.) ImageNet's goal was to create one huge real-world dataset by mapping the entire world of objects. This was achieved by leveraging Amazon's Mechanical Turk service to label millions of individual images.⁸ This is important because, before ImageNet, most computer scientists did not realize that a large real-world dataset was the missing link to being able to train machines to accurately identify unlabeled objects. ImageNet also allowed neural networks to enter the mainstream for image recognition. (A *neural network* is a machine-learning technique in which a computer learns to perform a task by analyzing training examples. We'll talk more about neural networks later in this chapter.)

ImageNet today is an image database of more than fifteen million labeled high-resolution images belonging to roughly twenty-two thousand categories.⁹ As a result of ImageNet, dozens of new AI research datasets have been introduced over the past ten years. For example, Google introduced its Open Images database in 2016. Open Images offers an image dataset so granularly labeled it can be used to train a multilayered neural network from scratch. ImageNet, Google Open Images, and other image datasets facilitate machine learning by providing a source of training data that enables machines to recognize similar, unlabeled objects.

At this point, you may be thinking you need a massive dataset compilation in your firm to use AI. Fear not! The datasets built by Google, ImageNet, and others are available to everyone. You also can use neural networks that Google and others have built as a starting point, without having to invest the time and resources needed to build one from scratch yourself.

In summary:

- AI is composed of a number of dimensions of which machine learning is just one.
- The Turing test is still the gold standard when it comes to deciding whether machines can think.
- The definition of artificial intelligence, according to John McCarthy, is “systems that perform actions that if performed by humans would be considered intelligent.”
- For all the excitement about AI in the 1950s, financiers pulled out by the 1970s because no one could figure out how to commercialize AI; this led to the “AI winter.”
- In 1981, DEC developed a rules-based “expert” system that saved them money, paving the way for other firms to begin monetizing AI.
- The ImageNet project initiated in 2006 allowed machines to become data-driven by providing access for the first time to a massive amount of training data.
- ImageNet led to Google and others developing even more sophisticated datasets, which in turn led to the development of neural networks.

So now that you have a sense of the key moments and concepts in the development of artificial intelligence, we can dive deeper into the machine-learning flavor of AI.

WHAT IS MACHINE LEARNING?

Machine learning occurs when a dataset is loaded into a machine that then processes it by applying one or more computer *algorithms* to arrive at a series of *predictions*.¹⁰ A computer algorithm is a well-defined procedure that allows a computer to solve a problem.¹¹ An algorithm is typically preceded by a qualifier, such as *search* algorithm or *classification* algorithm.¹² Only rarely in machine learning is a single algorithm used; typically several algorithms are deployed in a certain sequence and at lightning speed. To keep this concept simple, we’ll talk about them as one unit.

One example of an algorithm in action is Google search. When you type your search request into the box on Google’s home page, Google’s machine applies a proprietary and ever-changing search algorithm to your request to decide what information to retrieve for you from its mass of available data. The more relevant data the machine receives, the more accurate its

predictions become, because the algorithm can use this influx of information to continuously refine its predictions—that is, to *learn*. As the algorithm “gains experience,” it also becomes increasingly applicable to other future contexts.

You’ve experienced machine learning if you’ve let Google complete your sentences while writing an email in Gmail. Google’s machine notices what you’ve written instead of its suggestion, and uses its content algorithm to make a better prediction in the next email. The best-known use of machine learning, however, is in image recognition. For example, a robust image-based dataset combined with algorithms can allow a machine to accurately predict whether an image is a furry dog or a mop, on the basis of the characteristics it has “observed” in other similar images that have been labeled one or the other.

In 2015, TensorFlow, an open-source code library that helps developers develop and train machine-learning models and build neural networks, accelerated mainstream businesses’ ability to build and train their own image-recognition systems for use in a commercial setting.¹³ Here are a few examples of image-recognition systems in action:

- A bakery in Japan that employs a point-of-sale system that can scan and identify more than a hundred different types of pastries, tally them up, and allow the customer to pay with minimal human intervention¹⁴
- An initiative by The Nature Conservancy that uses image recognition and its own datasets to detect and classify species of the catch from fishing boats to control illegal, unreported, and unregulated fishing practices that affect the balance of the marine ecosystem¹⁵
- Carmaker KIA’s interactive campaign, which profiled participants’ image content online, assigned them to lifestyle groups on the basis of those images, and matched them to the cars that best fit their style among the thirty-six different car styles offered¹⁶

In summary:

- An algorithm is a well-defined procedure that allows a computer to solve a problem.
- In machine learning, typically several algorithms are deployed in a certain sequence and at lightning speed.
- You’ve experienced machine learning if you’ve let Google complete your sentences while writing an email in Gmail, because it predicts and then learns from your corrections.
- Image recognition is currently a well-known use of machine-learning-based AI.
- The open-source code library TensorFlow accelerated mainstream businesses’ ability to build and train their own image-recognition systems for use in a commercial setting.

CATEGORIES OF MACHINE LEARNING

Machine learning operates in four main categories: regression, dimensionality reduction, classification, and clustering. Dimensionality reduction and clustering fall under the commonly used term *unsupervised learning*, and classification and regression belong to the category of *supervised learning* techniques. These methods originate in statistics—the field of data collection, organization, analysis, interpretation, and presentation. Machine learning, in the form of deep learning (part of reinforcement learning), also operates in areas that do not come from statistics, most notably artificial neural networks. We’ll discuss neural networks and deep learning in detail a little later.

Let’s start by looking at the four main categories in action through the example of Airbnb, beginning with regression and dimensionality reduction.¹⁷

Founded in 2008 and based in San Francisco, Airbnb is an online platform that connects owners of homes, condominiums, apartments, villas, and even castles to prospective renters. Its goal is not only to keep all of its properties rented at all times but also to maximize the profit from each property. To determine how best to maximize profit, Airbnb needs a way to analyze and make predictions about its key revenue drivers.

In this example, Airbnb wants to increase revenue by optimizing pricing. One way to achieve this outcome is to examine the relationship between user sentiments and variables such as property cleanliness, cleaning fees, and price using a *regression* model. (Regression is a statistical method that allows you to examine the relationship between two or more variables. The good news is that the machine handles all the computational and statistical heavy lifting!)

Let’s say an Airbnb marketer’s data source is the reviews of properties. The problem is that the Airbnb raw data at this point is “unstructured,” thus not usable in the regression model. To overcome this problem, an algorithm must be applied to turn those written words (or groups of words) into numeric values—that is, “structured” data—that represent quantifiable consumer preferences. Note: The reduction of text into numbers also falls into the machine-learning category of *dimensionality reduction*, the process of reducing a large number of random variables under consideration to a smaller set of principal variables.

Airbnb then chooses to perform a high-level analysis of this review text (or data) by creating a *polarity metric* to represent the sentiment of the customer reviews for a property. To do this, it imports the raw text review data into a sentiment analysis tool (qdap library in the statistical package R), which produces a numeric score that captures the sentiment of the reviews.

With variables assigned, the qdap polarity algorithm is then applied. Natural language-processing algorithms such as qdap—which take raw text data and convert it into numeric sentiment scores—use a prespecified dictionary of positive and negative words, as well as context shifters (words around the positive and negative words), and assign a numeric value to each review, positive and negative. The polarity algorithm in qdap computes the weighted average of positive and negative words in a sentence, and the weights are dependent on the combination of the words and the context shifters.

Once a numerical value is assigned to the sentiment present in each review, Airbnb’s marketing managers can use *it* as a variable in a regression analysis designed to optimize revenues, just as it would any other variable. In that scenario, Airbnb’s regression analysis might use price, review sentiment, and property attributes, such as fees and number of bedrooms, to predict the number of reviews, a measure of property demand. The predictive model built with regression will allow Airbnb to predict property demand at different price levels, and then choose the price that maximizes property demand.

In summary:

- Machine learning operates in four main categories—regression, dimensionality reduction, classification, and clustering—which originate in the field of statistics.
- *Regression* is a statistical method that allows you to examine the relationship between two or more variables.
- Raw text data isn’t usable in a regression model because it is considered “unstructured” data.
- To overcome this problem, an algorithm must be applied to turn the text into numeric values, or “structured” data.
- Machine learning allows one to apply sophisticated tools, such as the sentiment analysis tool qdap, which produces deeper insights far faster than any human or group of humans could achieve.
- The reduction of text into numbers is a form of *dimensionality reduction*—the process of reducing a large number of random variables under consideration to a smaller set of principal variables.

The other two categories of machine learning are classification and clustering. It’s appropriate to talk about them together because classification

and clustering are also at the foundation of neural networks, which we'll talk about next.

Classification is the process of predicting the label or category of an item according to a group of data points. Those data points are assigned to characteristics. Characteristics are values that usefully describe the distinctive nature of the things you wish to classify. A simple example: If you're classifying moths, some characteristics would be wingspan, mass, and antennae length.

Staying with Airbnb, suppose the firm wants to identify guests most receptive to buying additional services, such as Airbnb Experiences. In this case, Airbnb's marketers would use guest characteristics, including age, family composition, prior locations visited, the number of experiences available at a location, and other relevant factors, to classify customers into different tiers that are based on their frequency of experience purchases in the past. The classification algorithm would sift through the past data on customers to help Airbnb identify rules that can be used to predict purchases of experiences. An example is customers who are twenty to thirty years old and single, have visited beach locations that have more than twenty experience options, have purchased an experience during every other visit, and so on. These rules would let Airbnb score customers who are now looking to rent a property and, if they score high on their chance of purchasing experiences, also suggest some experiences through emails.

Clustering is a machine-learning technique that involves the grouping of customers or data points.¹⁸ Clustering analysis allows you to gain valuable insights from your data by seeing which groups the data points fall into when the clustering algorithm is applied. Clustering is used in targeted marketing, customer segmentation, and recommender systems. A cluster analysis could be used by Airbnb to segment customers according to the characteristics of the properties they have rented, such as ratings on accuracy, communication, cleanliness, location, check-in process, and value. The output from the cluster analyses would provide segments that are based on their property preferences.

For example, Airbnb could use one segment's preference for cleanliness, and another's preference for easy and relevant communication with the host, to create personalized advertisements to target customers on Facebook. To target customers, the segments would need to be profiled on the basis of their demographics and other variables that Facebook provides.

These profile variables would be used to identify new prospects for Airbnb and target these prospects with the right message.

In summary:

- *Classification* is the process of predicting the label or category of an item according to a group of data points, which are assigned to characteristics. For example, some characteristics of a moth would be wingspan, mass, and antennae length.
- Machine learning's classification algorithm can sift through past data on customers to identify rules that can be used to predict the purchase of an Airbnb Experiences product.
- *Clustering* is a machine-learning technique that involves the grouping of customers (or data points).
- A cluster analysis could be used by Airbnb to segment customers on the basis of the characteristics of the properties they have rented.
- When it comes to regression and clustering, the machine learning and traditional versions are essentially the same. Clustering is almost exactly the same, and in regression the machine enables automation of variable selection to include a wider variety of data and process more predictors.

Another aspect of machine learning, specifically deep learning, operates in the area of artificial neural networks. Let's define neural networks first.

NEURAL NETWORKS

An artificial neural network is a set of algorithms, modeled after the human brain, that is designed to recognize patterns. Conceptually, a neural network is composed of inputs, hidden layers composed of nodes or “neurons” that do the work, and outputs.¹⁹

Neural networks help us cluster and classify data. They help group or *cluster* data according to similarities among the example inputs, and they can help *classify* unlabeled data when they have a labeled dataset to train on (think ImageNet)—thus helping the computer to improve its “perception” and to “learn.”²⁰ An object-recognition system powered by a neural network, for instance, might be fed thousands of labeled images of cars, houses, coffee cups, and so on, before it could find visual patterns in new, unlabeled images that consistently correlate with particular labels. The aforementioned Japanese point-of-sale system that can identify more than a hundred different pastry types was likely fed hundreds, if not thousands, of labeled images of maple melon pan before the system achieved the level of perception required to be useful.

For Airbnb, photos can make or break a user's decision to rent. So, in 2018, the firm undertook a project to categorize its massive database of listing photos into different room types using computer vision and deep

learning. This categorization project served two purposes: it allowed Airbnb to group photos of the same room type together to provide a simple home tour, and it also made it much easier for Airbnb to validate the information about the rooms provided by the host.²¹

Airbnb used image classification similar to ImageNet with the goal of presenting the photos that guests would be most interested in first, to be able to validate the information provided by hosts, and to help hosts learn how to make their images more appealing in a scalable way. To achieve this outcome, it chose an off-the-shelf neural net model called ResNet50 and customized it to its needs. Airbnb's data scientists then sought a reliable way to label the data and experimented with some training options. The result was that Airbnb can now ascertain with 95 percent certainty that, for example, an image the machine identifies as outdoors is in fact an outdoor image and an image classified as indoors is an indoor image. This shows the value of a company taking advantage of its direct-to-consumer data and custom-built algorithms to outperform even the industry state-of-the-art models.²²

One could see Airbnb extending this capability to allow guests to search within its website for houses with the characteristic "lake view" in a certain location—say, Geneva, Switzerland. Airbnb's system would then serve up some houses with lake views consistent with the images posted by the hosts.

In summary:

- An artificial *neural network* is a set of algorithms modeled after the human brain, which are designed to recognize patterns.
- Neural networks help us cluster and classify data, with the goal of helping the computer to improve its "perception" and to "learn."
- Image classification has enabled Airbnb to present the photos guests would be most interested in first and validate the information provided by hosts.
- Airbnb's use of its own direct-to-consumer data and custom-built algorithms led it to outperform industry state-of-the-art models.

DEEP LEARNING

If you've ever asked Siri or Alexa to make a phone call for you, or used Google's language translation application, you've experienced deep learning in action. Deep learning is the application of machine learning's neural networks to complex problems, allowing the machine to learn from its mistakes and assess its own probability of reaching a correct result or, in other words, develop its own "intuition."²³

For our purposes, when we talk about machine learning, we will assume that it also may include some aspects of deep learning. Though they are different terms, today AI, machine-learning, deep-learning, and neural networks typically work in concert. A great example was IBM Watson's performance as a contestant on the classic television game show *Jeopardy!* in 2011.

Watson and Jeopardy!

Watson began as one of IBM's Grand Challenges, a multiyear initiative involving its hardware, software, services, and research divisions that starts with a clear goal that is currently considered "impossible."²⁴ IBM conducts these challenges because it knows that even if the goal turns out not to be possible, the results will be valuable, and the company's collective knowledge will be advanced. IBM Watson, Deep Blue (the machine that beat grandmaster Garry Kasparov at chess),²⁵ and the Blue Gene supercomputer²⁶ were outcomes of IBM Grand Challenges.

For the Grand Challenge posed in the mid-2000s, Paul Horn, then director of IBM Research, was in favor of developing a machine that could win the Turing test by fooling a human into thinking they were having a conversation with another person. Horn thought a machine beating a person on *Jeopardy!* would be a step in that direction. He approached the executive vice president of IBM's software group, Charles Lickel, with the project, but Lickel was not on board until, at dinner one night, he watched the patrons clear out into the bar to see whether *Jeopardy!* champion Ken Jennings would continue his winning streak. (He did.) Lickel then managed to convince his very skeptical team to take on the *Jeopardy!* challenge.

Jeopardy! is a classic quiz game in which the answers are given first, and the contestants supply the questions. If a player's response is correct, they get an amount of money they have wagered; if incorrect, they lose that

amount. It is an incredibly complex game in that it requires not only encyclopedic knowledge but also the ability to recall that knowledge quickly, as well as the ability to interpret convoluted and often opaque statements, the ability to buzz in quickly and strategically . . . and a smidgen of luck.²⁷

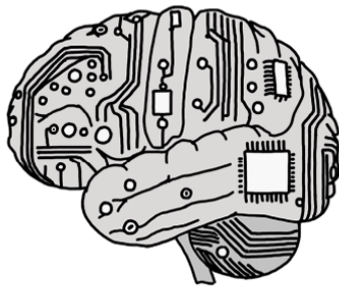
To meet this challenge, the IBM team needed to develop a “question-answering” machine. The result was DeepQA, a software architecture that examined natural language content not only in the clues set by *Jeopardy!* but also in some two hundred million pages of stored data. This system was named Watson after IBM’s founder, Thomas J. Watson, and was the first system with the ability to answer the questions posed in natural language—language that has evolved naturally in humans through use and repetition.²⁸ Watson’s ability to analyze and understand what the clue was *asking* is an example of machine learning in that the system used algorithms to analyze the various ways in which the question could be interpreted, then searched vast amounts of internal data for plausible answers.

In addition, considering the penalty a player faced for an incorrect answer, Watson also had to be confident in its response before buzzing in. This is where deep learning came in. Watson used a second set of algorithms (deep learning) to find evidence to support or refute possible answers and rank them, while limiting its offering of an answer to the instances where it was confident in its response ([figure 3](#)).

ARTIFICIAL INTELLIGENCE

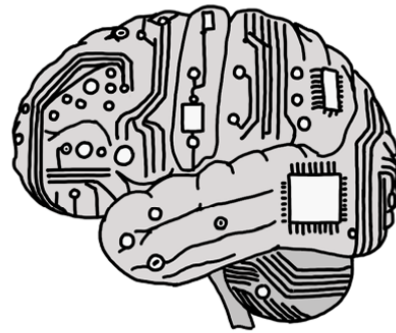
AI is the idea of human-like intelligence from a computer.
The *Jeopardy!* challenge was an early attempt to see if
this might be possible.

MACHINE LEARNING



Equipped the computer
with the ability to
understand question
language and search for
possible answers.

DEEP LEARNING



Equipped the computer
with a second set of
algorithms that ranked
possible answers.

FIGURE 3. Machine learning and deep learning

In February 2011, Watson was represented on the *Jeopardy!* podium by a vertical computer monitor with IBM's Smarter Planet logo, which turned green when the system answered correctly and orange when its answer was wrong. Though Watson received the clues via text instead of from host Alex Trebek, it played the game in just the same manner as its human counterparts did. Over three consecutive episodes, Watson successfully competed against two of the show's greatest champions and won the first-place prize of \$1 million.

IBM continued to further develop and commercialize its "cognitive computing" abilities, and its technology is deployed in a wide swath of industries, such as food, medicine, and travel. And even though IBM sold its marketing and commerce solutions, including Watson, to a private-

equity company in 2019, it plans to continue its collaboration with the new owner.

In summary:

- *Deep learning* is the application of machine learning's neural networks to complex problems, allowing the machine to learn from its mistakes and assess its own probability of reaching a correct result—or, in other words, to develop its own “intuition.”
- Today, AI, machine-learning, deep-learning, and neural networks typically work in concert, as in IBM Watson's *Jeopardy!* performance.
- IBM Watson, Deep Blue (the machine that beat grandmaster Garry Kasparov at chess), and the Blue Gene supercomputer were all outcomes of IBM Grand Challenges.

DATA AND ANALYTICS

We can't talk about AI and machine learning or deep learning without talking about data; to be able to learn and adapt, machines require *massive* amounts of data. There are basically two ways to talk about it: one is through the lens of machine learning, which originates from the newer field of computer science and AI, and the other is through statistical modeling, an older field that is derived from pure mathematics. Aatash Shah, chief executive officer of Edvancer Eduventures, defines the two this way:

- *Machine learning* is an algorithm that can learn from data *without* relying on rules-based programming.
- *Statistical modeling* is a formalization of relationships between variables in the data in the form of mathematical equations.²⁹

However, Carnegie Mellon professor and statistician Larry Wasserman asserts that the two fields address the exact same concepts but use different terms (figure 4).³⁰

So what is the difference between machine learning and statistical modeling? The short answer, according to Wasserman, is there is none. Both fields are concerned with answering the same question: How can we learn from data? Pressed to further distinguish the two fields, Wasserman said that “statistics emphasizes formal statistical inference (confidence intervals, hypothesis tests, optimal estimators) in low dimensional problems. Machine learning emphasizes high dimensional prediction problems.” He then quickly added that this is an oversimplification because, as both disciplines advance, the lines between the two blur more and more. In fact, the collaboration and overlap between these two data-driven disciplines results overall in better predictability and decision making.

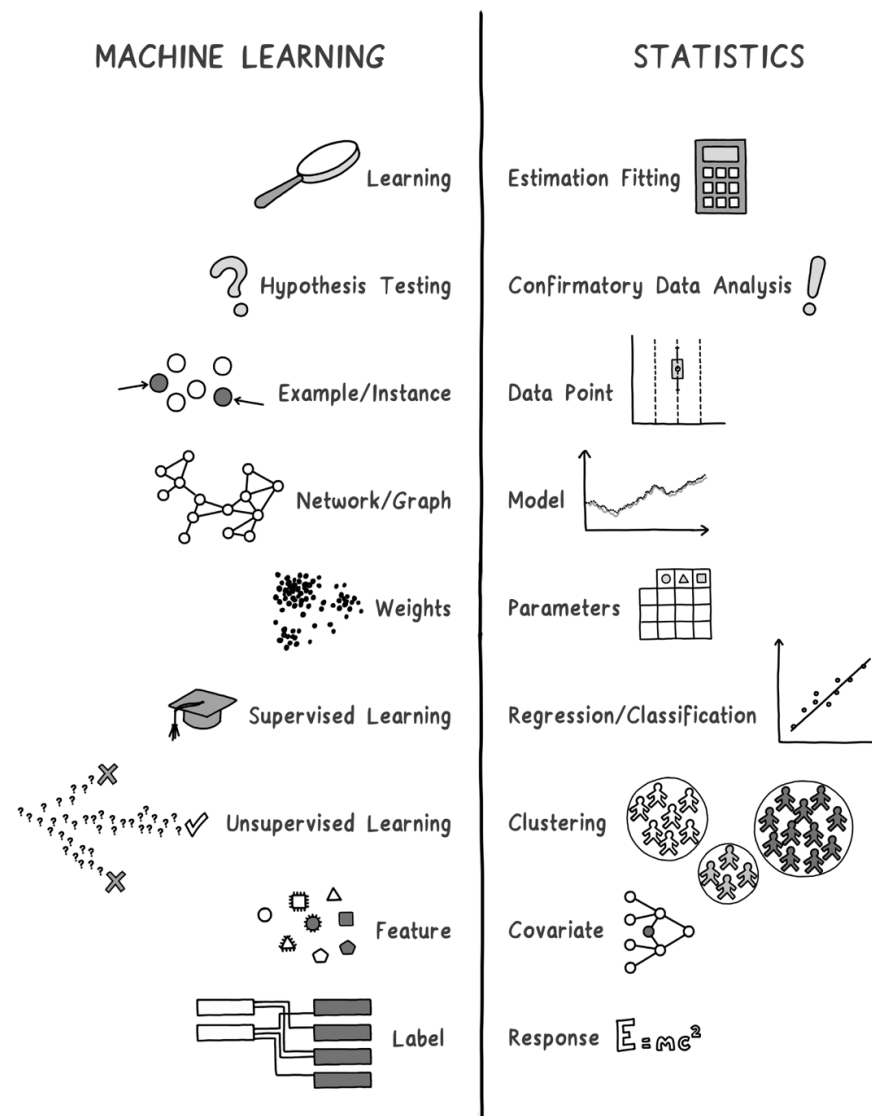


FIGURE 4. Machine learning versus statistics

WHEN TO USE WHAT IN MACHINE LEARNING

Machine learning is a powerful tool, but to use it effectively you first need to clarify what it is you want to achieve. Are you interested in summarizing historical information? Do you want to know what would happen if you took action a, b, c, or a combination thereof? Or do you want to figure out why a problem is happening and the best action to take to correct it? Understanding what you want to achieve will help you determine which machine-learning technique can best assist you.

Machine-learning techniques span a continuum in both analytics type and machine-learning type, as reflected in [figure 5](#).³¹

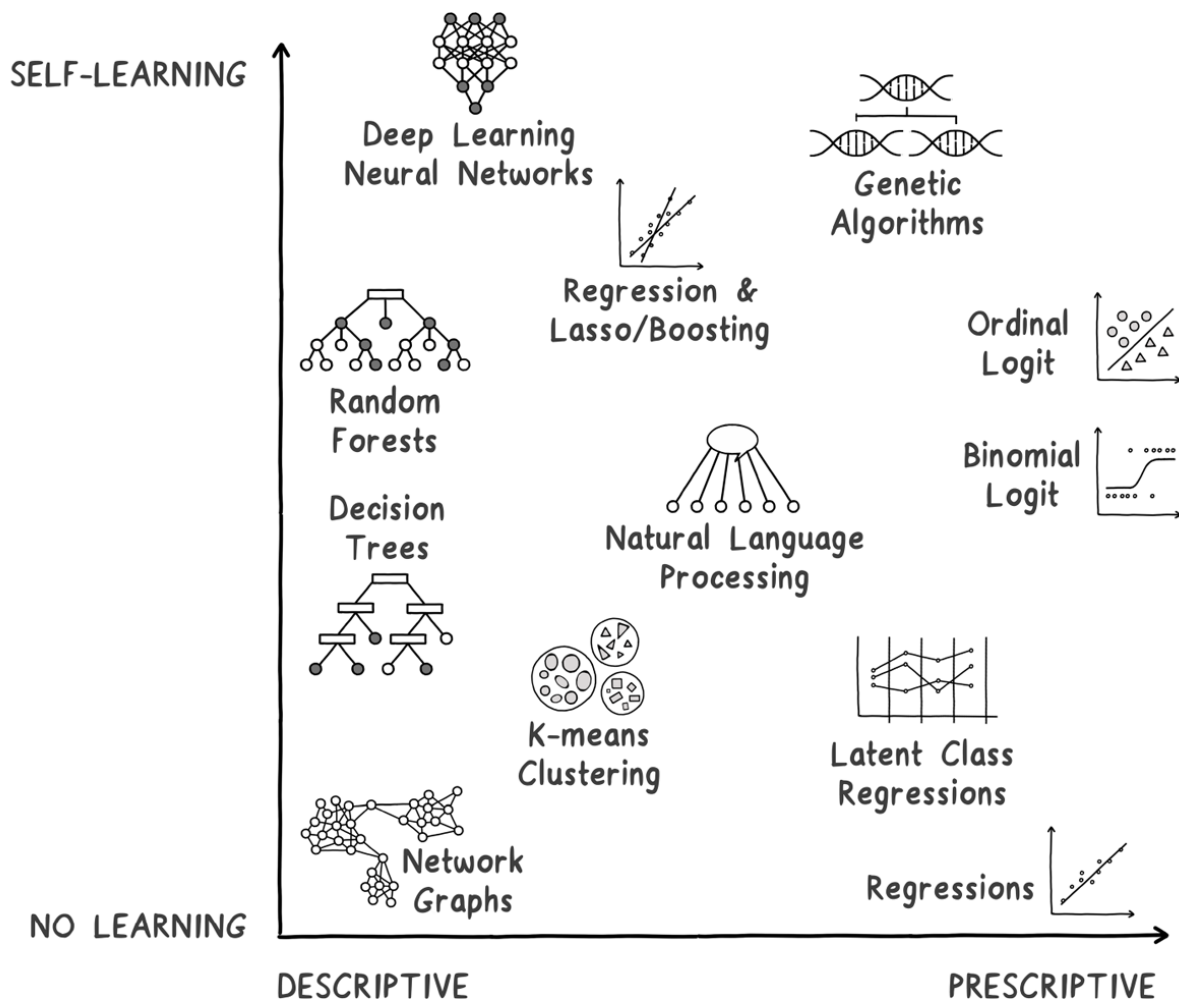


FIGURE 5. An analytics framework

ORGANIZING A FRAMEWORK FOR DIFFERENT ANALYTICS TECHNIQUES

Descriptive Analytics

Descriptive analytics explores data to summarize historic information. Typical questions answered by descriptive analytics include “What happened?” “When, where, and how often did something happen?” “Why did something happen?” or “Is a certain event abnormal?”

For example, Hilton Hotels may be interested in knowing the percentage of rooms booked in a property during the holiday season, the percentage of bookings that have come through Tripadvisor, the number of Facebook posts made by customers about their stay, the value of friends on the customers’ network on Facebook, and whether the drop-in bookings in a

certain property in March are consistent with historic trends and with trends in other properties in that region.

Network graphs are a descriptive technique Hilton could use to map customers' social relationships and learn about better customer targets for seeding viral marketing campaigns. Pivot tables, correlations, histograms, and data visualizations are other good examples of descriptive analytics.

Predictive Analytics

The term *predictive analytics* refers to methods that allow you to forecast outcomes or answer the question, "What will happen at different levels of input?" Machine-learning techniques have primarily focused on predictive analytics models that are capable of harnessing several variables to forecast a particular event. For example, Hilton may want to predict the level of occupancy of a property according to historic occupancy rates, the chain's characteristics (such as star ratings like five stars, four stars, etc.), Tripadvisor reviews, local events, or property features.

Managers could use decision trees, or an ensemble of decision trees called random forests, for this purpose. Lasso regressions allow managers to automatically select a smaller set of effective predictors from a large set of candidate variables with the specific goal of improving predictions across several possible samples of the data. For example, managers at Hilton can use lasso regressions to predict occupancy rates, similar to decision trees. Hilton would also be interested in knowing whether a customer is likely to continue booking in its properties, or is more likely to switch to other hotel chains like Marriott.

Neural networks and deep-learning extensions of neural networks allow managers to predict customer retention by incorporating *all* of the information about the customer's interactions with the brand: type of booking, type of trip (business or leisure), visit day of week, customer loyalty status, trends in customer bookings, customer demographics like age or income, property manager ratings, customer food preferences, and more.

Image classifiers and translation algorithms made popular by Google also use deep-learning algorithms. These algorithms are also called "self-learning" because they are capable of updating the model specifications themselves on the basis of new data, without human intervention.

Prescriptive Analytics

Prescriptive analytics are useful when managers are interested in the answers to questions such as, “Why is something happening?” and “What is the best course of action to maximize the key performance metric?” In addition to predicting customer churn, a Hilton manager may also want to know whether certain special offers available to platinum-level members, such as lounge access, are effective in building customer retention. While predictive models can predict an event, they are weak in determining whether a certain promotion is causally linked to an outcome such as customer retention. This prevents management from designing better offers to maximize retention.

This is where prescriptive analytics, such as multiple linear regression and logistic regression (binomial or ordinal), can be useful. Prescriptive-analytics techniques are less of a black box and can deduce the marginal effect of each individual treatment or marketing campaign on outcomes such as customer retention. The drawback is that they don’t handle a large number of independent variables very well, and their predictive power is typically lower than that of predictive-analytics techniques.

One interesting technique is *genetic algorithms*. These are algorithms inspired by Darwin’s theory of natural selection to solve optimization problems. They are a good solution, especially with incomplete or imperfect information, or even limited computational capacity. They use a process of evolution that begins with one set of variables and then intentionally and rapidly creates a series of subsequent “generations,” complete with mutations, to arrive at an optimal solution to a stated optimization problem.³² Let’s discuss what genetic algorithms look like in action.

Optimizely is a customer experience optimization software that uses genetic algorithms to, among other things, figure out what website features customers like so it can provide an increasingly personalized site experience. For example, the blender manufacturer Vitamix was seeing an 80 percent abandonment rate of its website shopping carts. To engage return visitors and encourage them to convert to checkout, Vitamix used Optimizely X Web Personalization. The new experience added a “minicart” functionality to Vitamix’s site, which showed a personalized list of items for purchase and a brightly colored call to action. By delivering this

personalized experience to return visitors, the team was able to improve order conversions for this audience by 13.7 percent.³³

In summary:

- Two ways to talk about data are through the lenses of *machine learning* and *statistical modeling*.
- The two fields address the same concepts but use different terms. Both fields are concerned with answering the same question: “How can we learn from data?”
- Machine learning is a powerful tool, but to use it effectively, you first must clarify what it is you want to achieve.
- Network graphs, regression, K-means clustering, natural language processing, and ordinal and binomial logits (figure 5) are examples of machine-learning techniques.
- Machine-learning techniques can use descriptive, predictive, and prescriptive analytics or a combination thereof (x axis). The process ranges from no learning to predictive to self-learning (y axis).
- *Descriptive analytics* explores data to summarize historic information.
- *Predictive analytics* allows you to forecast outcomes or answer the question, “What will happen at different levels of input?”
- *Prescriptive analytics* are useful when managers are interested in the answers to questions such as “Why is something happening?” and “What is the best course of action to maximize the key performance metric?”
- *Genetic algorithms* can solve optimization problems by using a process inspired by Darwin’s theory of natural selection.

Data-driven AI is already at work improving customer experiences through personalization—sometimes even without the customer noticing it. And the machine learning dimension of AI is rapidly approaching a level at which it makes better predictions on its own, constantly, while you are sleeping (as opposed to advanced analytics by itself, which only gets better when you have a meeting every Friday to discuss a spreadsheet, agree to a change or improvement, and then implement it the following week).

Though making improvements through meetings and manual intervention may be what we’re all used to, future success lies in the strategic implementation of AI-powered systems that can deliver automated improvements to the customer experience at every significant marketing moment. It’s about giving machines examples that allow them to make highly accurate predictions so you can use them to do marketing that will transform those four customer relationship moments—acquisition, retention, growth, and advocacy—into AI moments.

Now that you have the basics of AI and traditional machine learning under your belt, let’s move on to look at the flavor of artificial intelligence that is perhaps more well-known among marketers: generative AI.

5

Generative AI and Agentic AI

“Those who understand and master AI will have a leg up as marketers.”

—Jim Lecinski’s advice to his MBA students

Over the last few years, artificial intelligence (AI) has shifted from being a buzzword in marketing to a transformative force. While traditional machine-learning models—those that analyze data, as we discussed in the previous chapter—have helped marketers make better predictions, the next wave of AI is proving to be even more powerful: *generative AI* and *agentic AI*. These advanced systems are opening up new opportunities in content creation, automation, and decision making. However, to fully harness their potential, marketers must first understand how these technologies work at a fundamental level.

In this chapter, we will delve into generative AI, the kind of AI that can create new content—whether text, images, or even music—that is based on inputs from users. Generative AI is revolutionizing how marketers approach creativity, allowing for content that is personalized at scale and generated in real time. Alongside generative AI, we will explore agentic AI—AI systems that possess the autonomy to act independently, make decisions, and execute tasks. Together, these flavors of AI are radically changing the way we approach both marketing and business operations.

GENERATIVE AI: HOW DOES IT WORK?

Generative AI is a class of models that goes beyond simply classifying or predicting data; it creates new data. Generative AI systems can generate content—whether written text, images, or even code—that is based on a combination of user inputs and the vast amount of data they have already learned from. The most prominent example of generative AI that marketers will likely know is from OpenAI, the company that built the famous ChatGPT series of models, which can generate humanlike outputs from prompts, instructions, or directions given to it by a user (that’s you!).

Generative AI models, often referred to as large-language models (LLMs), work through a process called *pretraining*. During pretraining, these models are exposed to vast amounts of data, ranging from books and articles to websites and more. We’re talking about *multiple terabytes* of text—that is, multiple trillions of words! The model learns to recognize patterns in this training data and builds a generalized understanding of how language works. It doesn’t “know” facts in the traditional sense, but it can generate plausible-sounding content that is based on the relationships between words it has learned. For example, an LLM like ChatGPT has seen and trained on every children’s story and nursery rhyme ever written. So it can generate the end of this phrase when I ask it, “What exactly was it that Mary had whose fleece was white as snow?” (A little lamb, of course!) This same concept is what makes an LLM capable of producing everything from customer support replies to full-length blog posts for marketers, all by generating what likely comes next in a sequence of words, consistent with input data.

Going a step deeper, two of the most important types of models that power generative AI are *transformer models* and *diffusion models*. While both are highly effective at generating content, they operate on very different principles and are suited to different types of tasks.

Transformer Models: The Engine Behind Generative Text

Transformer models, such as GPT-4, have become the backbone of many generative AI systems. These models are built around a core concept called the *attention mechanism*, which allows the model to focus on different parts of an input sequence to make predictions about what comes next.

The concept of transformers was first introduced in 2017 by Google researchers in a paper titled “Attention Is All You Need.” This innovation allowed for breakthroughs in natural language processing by enabling models to process entire sequences of text at once, instead of step by step like previous models. The key to the transformer’s success is the attention mechanism, which assigns “weights” to different parts of the input sequence, allowing the model to prioritize certain words or phrases over others depending on their relevance. For instance, in the sentence “The marketing team launched a new campaign,” the model might focus more on “marketing” and “campaign” as key indicators of the context, while the other words may receive less attention.

By analyzing all the input simultaneously and determining the importance of each part of the sequence, transformers are able to generate more coherent and contextually appropriate text. The beauty of this approach is that transformers can process long pieces of text at once, learning relationships between words over long distances in the sequence. This is crucial for tasks like language translation, in which the meaning of a word often depends on its surrounding context.

While transformer models excel at generating text, they do have limitations. For one, they are only as good as the data they were trained on. If a transformer model was trained on biased or incomplete data, it could generate biased content or miss important nuances. This is why it’s crucial for marketers to review AI-generated content carefully before it is deployed.

Diffusion Models: Generating Visual and Multimedia Content

While transformers are ideal for text-based tasks, another type of generative model, *diffusion models*, are particularly powerful for tasks involving image generation. These models, often referred to as *diffusion probabilistic models*, work by gradually adding noise to an image and then removing that noise step by step to reveal the final output.

Diffusion models operate by taking an image (or other data types) and corrupting it with random noise. The model then “learns” how to reverse the noise over multiple steps until it restores a clear, coherent image. Think of it like a puzzle with its pieces initially scattered, and then the model gradually solves it step by step. Each step is like a mini-step of reconstruction, improving the image as the noise is slowly removed.

This process is especially powerful for generating images, as it allows the model to create images that are not simply combinations of what it has seen before but also highly diverse and creative. For example, models like OpenAI’s DALL·E—which uses diffusion-based techniques—can generate entirely new images that are based on textual descriptions such as “a purple elephant in a futuristic city.”

Remember, the key difference between diffusion models and transformers lies in the type of data they handle. Diffusion models are particularly good at handling visual data, while transformer models excel at handling sequential text data. As a marketer, understanding the strengths of each model will allow you to choose the right tool for the right job, whether you’re creating custom illustrations for a campaign or drafting the perfect product description.

Now that you’re familiar with transformers (which power language models by understanding sequences such as words and sentences) and diffusers (which are used to generate and refine images from noise), think of multimodal models as the fusion layer that brings all of that together. A *multimodal model* can take in and generate multiple types of inputs and outputs—text, images, audio, video, even code—all within the same system (figure 6). In simple terms, a multimodal model is a single unified AI brain (remember, it’s *artificial*, not human, so it doesn’t actually have a brain) that can read, write, see, listen, and speak—and, most important, understand the relationships between all those modes. For example,

- It doesn’t just read the words in a slide deck—it can interpret the visuals, extract key messages, and write a summary email.
- It can look at a photo from your latest campaign and suggest improvements on the basis of tone, brand voice, or even audience emotion.

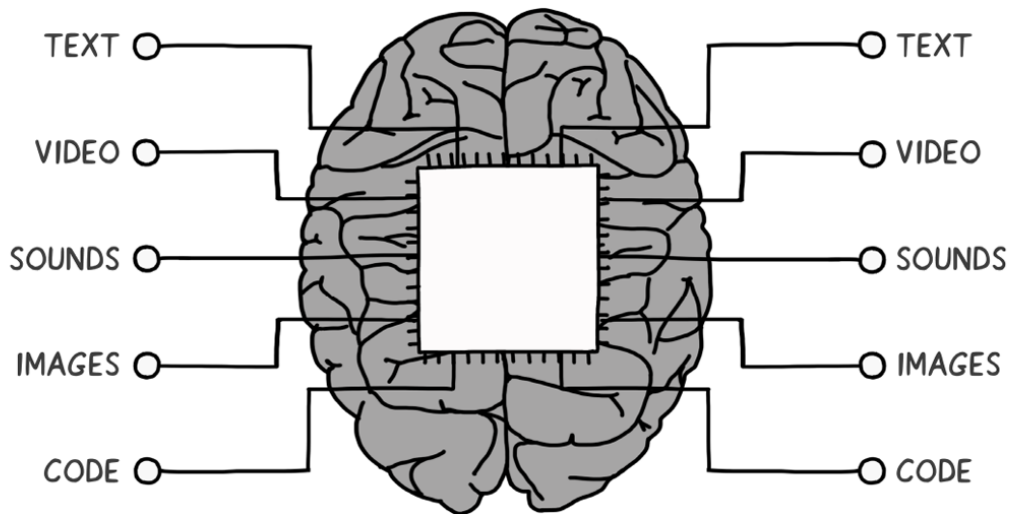


FIGURE 6. Multimodal generative AI model

- It can take a customer support call recording, analyze sentiment and key pain points, and feed that insight into a report ready for a customer relationship management (CRM) system or for a marketing brief.

So, while transformer models revolutionized how we deal with text and diffuser models how we generate images, multimodal models redefine how AI interacts across formats—just like your marketing team does every day.

WHAT GENERATIVE AI DOES WELL (AND WHERE IT STRUGGLES)

Generative AI excels in helping marketing with tasks that require some creativity and are also data-driven. For example, generative AI can quickly produce marketing content at scale, such as generating hundreds of variations of an email subject line or automatically crafting blog posts that are based on user-provided keywords. Generative AI can also create highly *personalized marketing content*, content that is hyper-tailored to specific customer segments according to data you know about them, such as their preferences and behaviors. Of course, generative AI's ability to do tasks like this well is highly dependent on the input you provide it, both the customer data and your prompt in this example. The old adage “garbage in, garbage out” certainly applies here! Keep this in mind—firms with good data to use in AI systems have a data advantage versus the competition, an important strategic advantage.

However, even with a great multimodal model, great prompting, and great input data, there are areas where generative AI struggles and often

falls short. Why? The primary issue is that while these models can generate content on the basis of patterns, they do not “understand” the content in the same way humans do. This means that the content generated can sometimes be nonsensical or irrelevant. The AI does not have an innate grasp of context beyond what it has learned from its training data, which can lead to content gaps or errors that human oversight can easily correct.

Moreover, generative AI struggles with creativity in the human sense. While AI can generate endless variations of a text or an image, it is ultimately limited to what it has already been trained on. Truly innovative ideas or novel original concepts still require human creativity to develop, guide, and refine them.

AGENTIC AI: MOVING FROM TASK COMPLETION TO AUTONOMOUS DECISION MAKING

While generative AI models create content based on learned patterns, *agentic AI* takes the next step by introducing *autonomy*—the ability for AI systems to make decisions and then take actions independently to achieve specified goals. This type of AI is built to function in environments where it needs to perform complex tasks without constant human supervision, adapting to changing circumstances as it learns and evolves. Customer service, as we will see, is one possible application of agentic AI.

The key to remember is agentic AI differs from traditional AI in that it doesn’t just perform predefined tasks; it can *learn* and *adapt* its approach on the basis of new data or changing conditions. This makes it more flexible and capable of performing multistep tasks that require ongoing decision making.

A simple example of agentic AI is the virtual assistant, like Apple’s Siri or Google Assistant. These agents can carry out tasks such as setting reminders, sending texts, or answering questions, but they require explicit commands and are limited in their ability to operate autonomously. However, the future of agentic AI is much more ambitious than simply a better voice assistant on your phone.

This shift toward agentic AI is no longer theoretical—it’s live, mainstream, and increasingly invisible to the end user. Perhaps one of the most tangible and consumer-facing examples of agentic AI in action today comes from Amazon. In early 2025, the company began rolling out a

feature in its mobile app called Buy for Me,¹ which lets Amazon act as your digital purchasing agent—not just for products on its own platform but also for items sold directly on other brands’ websites.

Here’s how it works. When a customer searches for a product in the Amazon app, they might encounter listings in a new section labeled “Shop brand sites directly.” Tapping on one of these items doesn’t open a new browser window or send the customer away. Instead, it launches a native Amazon-hosted product detail page that mirrors the design and functionality of traditional Amazon listings. If the customer wants to buy the item, they simply tap “Buy for Me,” and Amazon takes it from there.

Behind the scenes, agentic AI kicks in—automatically retrieving the customer’s encrypted shipping and payment details, navigating the third-party brand’s website, and completing the transaction on the customer’s behalf. Amazon doesn’t own the transaction. The sale still happens on the brand’s site, and customer service remains the brand’s responsibility. But the entire journey is orchestrated by AI, with little to no user friction.

Crucially, this isn’t just automation—it’s *orchestration*. Amazon’s AI agent is coordinating multiple systems: secure identity verification, payment processing, cross-platform navigation, and post-purchase tracking. The agent even generates a unique email address for the customer to maintain privacy while facilitating communications with the brand. It’s a closed-loop system enabled by AI that understands not only what the customer wants but also how to make it happen across digital ecosystems in real time.

This is a powerful illustration of where marketing—and commerce more broadly—is heading. The AI isn’t simply helping the customer shop. It is shopping for them. And it’s doing so with transparency, security, and autonomy, all inside a familiar interface. For marketers, the implications are profound: seamless access to off-platform inventory, tighter integration with partners, and a customer experience that’s faster, simpler, and increasingly AI-mediated.

THE BENEFITS AND CHALLENGES OF AGENTIC AI IN MARKETING

The benefits of agentic AI are numerous and transformative. First and foremost, it allows for an *increased level of automation* that goes far beyond simple task completion. Marketers will be able to delegate repetitive tasks, manage entire customer relationships, and optimize campaign strategies without having to manually intervene in every step. AI systems will be able to take in vast amounts of data, analyze consumer behavior, and adjust strategies in real time without needing constant oversight.

Furthermore, agentic AI's ability to *adapt* and *learn* over time means that marketing systems can become more intuitive and effective the longer they operate. For example, an AI agent could continuously refine its understanding of consumer preferences, learning from each interaction to make smarter decisions and more relevant recommendations. This creates a more personalized experience at scale, in which each customer's journey is dynamically optimized to meet their unique needs.

However, this level of autonomy introduces several challenges. As agentic AI systems grow more independent, marketers may lose some control over their strategies. While humans will still play a crucial role in setting high-level goals and ensuring alignment with broader business objectives, the day-to-day management of campaigns may be largely left to AI systems. This creates a need for more robust monitoring systems to ensure that AI agents remain aligned with brand values, ethical standards, and customer expectations.

Moreover, the increasing complexity of agentic AI raises concerns about accountability and transparency. If an AI system is making decisions on behalf of a brand or a consumer, it becomes difficult to understand the reasoning behind those decisions. If an AI agent's actions lead to unintended consequences—such as a bad customer experience or an ethical dilemma—it may be challenging for marketers to pinpoint exactly where things went wrong. Therefore, new approaches to AI governance will be necessary, including clearer guidelines on how these systems operate and regular audits to ensure they are functioning properly.

In addition, agentic AI introduces new privacy and security concerns. With AI agents handling more aspects of consumer interactions and

decision making, there is a risk that sensitive data could be mishandled or misused. Brands must ensure that their AI systems are secure and that consumer data is protected at every step of the AI interaction. Without the proper safeguards, the potential for breaches or misuse could undermine trust between consumers and brands.

RETHINKING THE FUTURE: WHEN AI IS THE CUSTOMER

As agentic AI moves from experiment to infrastructure, marketers face a fundamental shift. In a world where intelligent agents act on behalf of consumers, brand interactions won't always be human to human—they'll increasingly be AI to AI.

Your customer might never land on your home page, browse your category pages, or see your Instagram ads. Instead, they'll say to their AI, "Find me a stylish guest bathroom makeover for under \$2,500, finished by June 1." From that moment on, your customer's AI agent—not the customer—will handle everything: research, evaluation, purchasing, and logistics. If your brand's systems aren't built to communicate fluently and persuasively with those agents, you simply won't be considered.

This changes everything.

Agentic AI will not only consume content but also filter, compare, negotiate, and act. And on the brand side, marketers will deploy their own agents to do the same in return: craft campaigns, optimize spend, refine messages, and make real-time decisions across platforms. Instead of orchestrating every step manually, marketers will increasingly guide the goals and guardrails—then let their AI counterparts execute.

What emerges is a landscape where marketing is no longer just a story told to humans—it's a dialogue between machines, governed by logic, preference, and trust. Brands will need to optimize not only for human emotion and experience but also for the decision-making frameworks of AI agents: models that weigh price, performance, ethics, reputation, and alignment with consumer values.

Trust, in this future, becomes programmable.

To succeed, brands will need to design systems that are as transparent and trustworthy to AI agents as they are compelling to people. Marketing

won't just be about messages—it will be about systems of engagement, with strategies tuned to win not just hearts and minds but also algorithms.

Agentic AI isn't just another efficiency gain. It's a new operating model. And for marketers, it's the next competitive frontier.

PREPARING FOR THE AI-DRIVEN FUTURE OF MARKETING

Generative AI and agentic AI represent the next evolution in the marketing landscape, enabling new levels of creativity, automation, and personalization. By understanding the underlying mechanics of how these systems work—how transformer models generate text and how agentic AI can autonomously execute tasks—marketers can position themselves to leverage these tools effectively.

While the potential is vast, it is important to recognize the challenges and risks associated with AI-driven automation. As AI becomes more autonomous, brands will need to establish new systems of governance, transparency, and security to ensure that AI agents act in alignment with business goals and ethical standards.

For marketers, the key will be to embrace this new wave of AI innovation while maintaining control over the strategic direction of the brand. This means fostering a new kind of partnership between humans and AI—one in which AI agents act as extensions of the brand, optimizing and personalizing customer experiences while still being guided by human oversight.

In the end, the future of marketing will not just be about crafting clever messages or building creative campaigns; it will be about shaping AI-to-AI relationships, ensuring that these intelligent systems work seamlessly with one another to deliver better, faster, and more personalized experiences for the consumer. The next frontier is not just human interaction with AI; it's AI-driven ecosystems in which everything—product research, purchase decisions, content creation, and even customer service—will be orchestrated by autonomous AI agents acting on behalf of both brands and consumers alike.

In summary:

- *Generative AI models* are designed to create content such as text, images, and code, while *agentic AI models* take the next step by acting autonomously to make decisions and complete tasks on behalf of users or organizations.

- *Transformer models* power generative text by understanding sequences and predicting likely next words, while *diffusion models* generate and refine images by gradually removing noise; both are foundational technologies for marketers to understand.
- *Multimodal AI models* unify capabilities across text, image, video, audio, and code, enabling marketers to work with and generate content across all these formats from a single AI system.
- Agentic AI introduces *orchestration*, allowing marketers to move beyond one-off prompts and instead delegate complex, multistep processes—from insight generation to execution—while remaining in control of overall goals and strategies.
- Consumer behavior is shifting as people begin to delegate tasks and decisions to personal AI agents, meaning that brands must now learn to influence and engage not only human buyers but also the AI systems acting on their behalf.
- As AI agents become intermediaries in the customer journey, marketers must begin designing campaigns, content, and systems that appeal to both human emotions and machine reasoning.
- Trust, transparency, and ethical governance will become core elements of brand experience, not just for consumers but also for the AI agents evaluating whether a brand is trustworthy and aligned with a user's values and goals.
- Ultimately, this is more than a shift in tools—it is a shift in how marketing operates, requiring a rethinking of workflows, roles, and strategies in an increasingly AI-orchestrated ecosystem.

Now that you have a good understanding of the two general types of AI—predictive and generative—and the agentic future, let's turn our attention to the use cases for marketers to apply those two types of AI.

6

The Four Marketing-Use Cases for AI

“If you don’t know where you’re going, any road will take you there.”

—Proverb

As we’ve been discussing, AI is radically reshaping the world of marketing. You now have a good understanding of the technology behind AI. But how exactly can you apply AI to marketing? What are the use cases for marketers? No doubt initial applications have focused on AI as a productivity tool, helping marketers do what they do faster and more easily. However, AI can also help marketers fuel transformative growth, to do amazing things never before possible, not just save time and money. To expand upon this thinking, this chapter provides a structured framework for you as a marketer to strategically apply AI in ways that can drive not just efficiency but also significant growth for your team and your customers.

FROM PRODUCTIVITY TO GROWTH: THE SHIFT IN AI’S ROLE

For many marketers, AI has primarily been seen as a way to boost productivity—making existing processes faster, cheaper, and more efficient. Tasks such as automating customer service inquiries, generating reports, or writing creative briefs can all be optimized through AI, enabling teams to save time and reduce costs. But as we look ahead, it’s our firm belief that AI’s true potential lies in growth—transforming business models, creating new value, and unlocking opportunities that were once out of reach.

Consider the example of Ikea, the global company that has long been associated with affordable, stylish furniture. Traditionally, a company like Ikea might create online ads, a finite set of templated design ideas, and offers to persuade potential customers to purchase from them. Of course, Ikea could employ AI to help generate many versions of those same ads and room design ideas faster and cheaper.

But let's think bigger and bolder. What if Ikea could offer every single one of its customers a personal interior design consultant at no charge to help them create the room of their dreams? Of course, that would be prohibitively expensive for Ikea, and perhaps not even possible—there may not even be enough certified interior design professionals in the world to do that if Ikea hired them all!

Well, the good news is that AI can help Ikea's marketing team deliver this transformative personalized interior designer experience for every customer, making the previously impossible now totally possible. Imagine AI-powered design assistants providing personalized assistance, helping customers create custom home layouts, recommend furniture, and even simulate their living rooms with Ikea's products. This is a level of personalized service that was once only available to the wealthy, but now, thanks to AI's ability to scale at a fraction of the traditional cost, it's becoming a reality. Notice how this is not merely an improvement in efficiency—getting to the same end output as before, just faster and cheaper—this Ikea example is a fundamental transformation in how a business interacts with its customers—what we call transformational growth.

In this Ikea example, the end output was a design bot that was external, customer-facing. But the same line of thinking could also be applied to internal tasks your marketing team does every day. AI can make them more efficient and productive and/or transform them altogether.

This shift from productivity to growth in AI applications is a turning point. Marketers who understand that AI can deliver both productivity and transformational growth will be poised to lead the charge in transforming not only their marketing operations but also their firm's entire business strategies.

A 2X2 FRAMEWORK FOR STRATEGIC AI APPLICATION

To help marketers navigate this evolving landscape, we've developed a framework that categorizes AI applications into four distinct spaces ([figure 7](#)). The two axes of this framework are productivity versus growth and internal versus external applications. This 2x2 framework is designed to help marketers identify where AI can add the most value in their organizations and how they can prioritize AI initiatives for maximum impact.

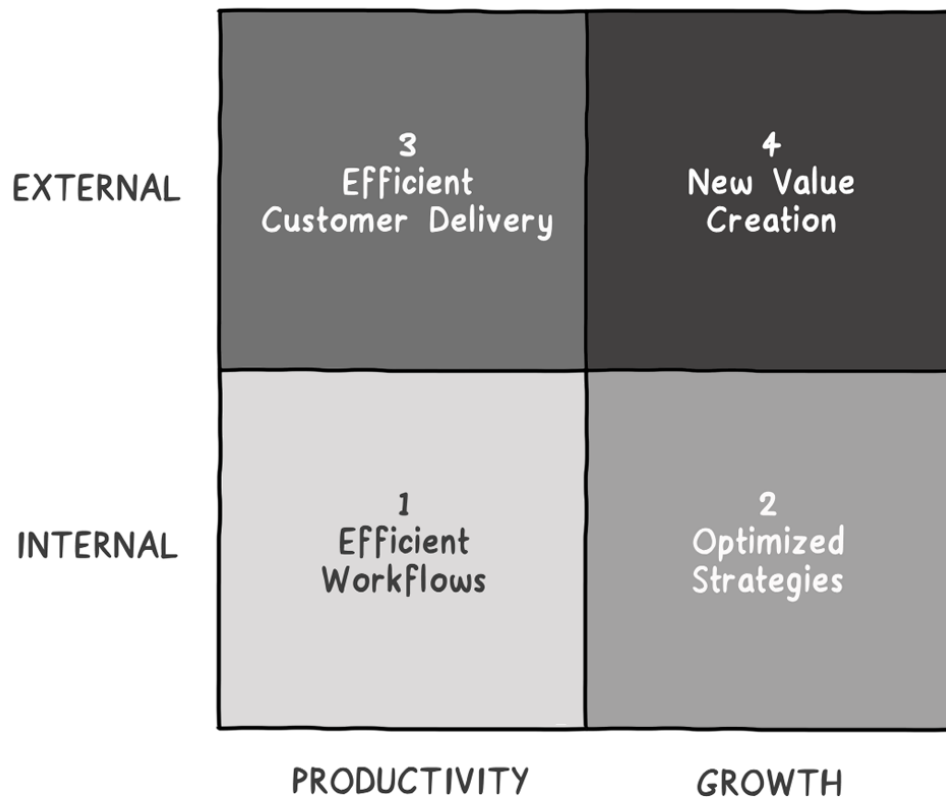


FIGURE 7. The four marketing-use cases for AI

Let's examine each of these four quadrants in more detail:

- **Productivity/Internal (Quadrant 1):** This quadrant focuses on using AI to automate and optimize internal processes, improving efficiency without necessarily changing the nature of the task. For example, AI can automate routine administrative tasks such as generating reports, scheduling meetings, or drafting standard creative briefs. While these tasks don't necessarily add new value, they free up time for marketers to focus on higher-level strategic work. In this space, AI is an enabler of productivity, reducing friction and allowing teams to accomplish more with less effort.
- **Growth/Internal (Quadrant 2):** Moving into this quadrant, AI begins to influence not only internal operations but also the outcomes they deliver. AI can help marketers optimize strategies through more sophisticated predictive analytics, enabling them to make data-driven decisions that directly impact business growth. For example, AI can analyze customer data to predict purchasing behavior, allowing marketers to target campaigns more effectively and reduce waste. It can also help segment audiences with unprecedented precision, leading to more relevant and engaging marketing efforts. In this quadrant, AI's role is not just to improve internal workflows but also to enable internal teams to work smarter, driving tangible growth.
- **Productivity/External (Quadrant 3):** This quadrant focuses on using AI to improve customer-facing processes with the goal of enhancing efficiency. For example, AI-powered chatbots can handle routine customer inquiries, providing faster, more consistent service. These applications drive productivity by automating tasks that would otherwise require human interaction. While this application improves the customer experience by providing quick answers, it doesn't necessarily disrupt or radically transform how the business operates—it simply makes things run more smoothly.

■ **Growth/External (Quadrant 4):** The most exciting space for AI application, this quadrant involves using AI to create entirely new value propositions for customers. In this space, AI doesn't just improve existing processes—it helps businesses rethink what's possible. The Ikea example we mentioned earlier fits perfectly into this quadrant. By using AI to scale personalized interior design services, Ikea is not just making incremental improvements; it is fundamentally transforming the customer experience. It is creating entirely new avenues for value creation, providing individualized recommendations and services that were previously out of reach for most customers. This is the space where AI can truly revolutionize an industry, creating new business models and customer experiences.

UNDERSTANDING THE FOUR QUADRANTS AND THE MARKETING CYCLE

Now you may be wondering how your day-to-day work as a marketer fits into these four quadrants. Most marketers follow some version of the classic seven-step marketing process:

1. Competitive and market analysis
2. Audience insights and segmentation
3. Brand and messaging strategy
4. Media and channel strategy
5. Creative and content development
6. Campaign execution and deployment
7. Measurement and optimization

Let's map these steps into our four quadrants so you can clearly see how AI can be strategically applied at each step of your marketing cycle.

Competitive and Market Analysis: Harnessing AI's Predictive Power

The first step in the marketing cycle is always understanding the competitive landscape—who the key players are, what market trends are shaping the future, and how external factors, such as economic or technological shifts, might influence strategy. Traditionally, this process has involved gathering data from reports, market research, and competitor analysis, often relying on human effort to spot patterns and make strategic decisions.

AI introduces a new level of insight in this phase, particularly in the *growth/external* quadrant. By automating the collection of competitive intelligence, AI tools can rapidly scan vast amounts of data from sources such as social media, industry reports, or customer feedback. Sentiment analysis, powered by AI, can track shifts in consumer sentiment toward

competitors or the market, providing real-time updates on how customers feel about a brand, product, or industry.

In the *productivity/internal* space, AI also automates the process of gathering and processing data. Instead of relying on marketing teams to manually input and interpret information, AI tools can generate comprehensive reports and insights, enabling teams to focus on the strategy rather than the grunt work of data collection.

By leveraging AI in competitive analysis, marketers can move from reactive decision making to proactive strategy development. With predictive analytics, AI can even anticipate competitor moves, helping brands stay a step ahead in a competitive market.

Audience Insights and Segmentation: Evolving with AI

Audience segmentation has long been one of the cornerstones of marketing strategy. Traditionally, marketers segmented their audience according to demographic data, buying behaviors, or psychographics, creating broad categories of customers to target with tailored campaigns. However, this process is often static, and segments can quickly become outdated as customer behaviors change.

AI enhances segmentation by moving beyond static, historical data to real-time, dynamic insights. Through AI, marketers can leverage *growth/external* capabilities to automatically segment customers according to their behaviors, purchase history, and engagement levels, updating these segments in real time. AI can also help predict which customers are likely to convert, ensuring marketing efforts are focused on high-value segments.

Moreover, AI's *productivity/internal* applications can automate much of the work involved in creating these segments. No longer does the marketing team need to manually update segmentation reports—AI tools can manage this process continuously, ensuring that segments are always current and accurate.

In short, AI empowers marketers to deliver a higher degree of personalization, ensuring that content and campaigns are relevant and timely for each customer segment. This not only drives better engagement but also improves conversion rates, as the messaging becomes more tailored to the individual.

Brand and Messaging Strategy: Refining Communication with AI

Traditionally, brand and messaging strategies are shaped through a mix of market research, creative brainstorming, and iterative testing. The process can be slow, with marketers crafting messages that are based on intuition and previous experience, testing them through A/B trials, and refining them over time. AI accelerates this process, helping marketers better understand which messages will resonate most with specific customer segments.

Marketers can use generative AI as a brainstorming tool to come up with creative ideas for campaigns, product names, or promotional strategies. AI can generate multiple concepts quickly, which can then be refined and adapted by human teams.

In the *growth/internal* quadrant, AI tools can analyze customer responses to different messages, testing variations in real time and suggesting optimizations that are based on engagement data. For example, AI-driven platforms can create multiple versions of a message or ad, adjusting tone, language, and imagery according to real-time feedback from different audience segments. This ensures that brands are communicating the right message in the right way at all times.

In the *growth/external* quadrant, AI tools such as emotion recognition can analyze how different customer segments respond to messages, providing deeper insights into how emotions such as excitement, trust, or urgency affect engagement. By using this data, marketers can refine their messaging to create more powerful emotional connections with their audience.

Ultimately, AI enables marketers to create messaging that is not only more effective but also more aligned with customer needs and preferences, driving stronger engagement and brand loyalty.

Media and Channel Strategy: Optimizing Spend with AI

Selecting the right media channels and allocating the budget accordingly is a critical step in the marketing cycle. Historically, this process involved analyzing past performance, industry benchmarks, and intuition to determine which channels were most likely to deliver the desired results. With AI, media planning becomes more data-driven, dynamic, and predictive.

AI's *growth/internal* capabilities allow marketers to predict which channels and media formats will perform best with specific audience

segments. For example, AI can analyze historical campaign data to identify which social media platforms, search engines, or content types generate the highest return on investment (ROI) for different customer groups. This means that budget allocation is not left to guesswork; it is optimized on the basis of data.

In the *productivity/internal* quadrant, AI tools automate the media-buying process, continuously adjusting bids, budgets, and campaign settings to maximize ROI. This allows marketers to focus on strategy and creative content while AI handles the logistics of ad placements.

AI brings both agility and precision to media planning, ensuring that marketing dollars are spent efficiently and effectively, ultimately leading to better performance and higher returns on investment.

Creative and Content Development: Scaling Personalization with AI

Creative development has long been the heart of marketing. Whether crafting compelling ad copy or designing eye-catching visuals, creating content that resonates with the target audience is a time-consuming, collaborative process. With AI, marketers can scale content production while maintaining personalization.

AI can generate ideas for blog posts, social media content, and ad copy. With just a few input keywords or a short description, AI can provide several options for marketers to work with.

In the *growth/external* quadrant, AI can create personalized content on a massive scale. AI-driven tools can generate variations of ad copy, images, and videos that are tailored to individual customers, ensuring that each piece of content speaks directly to the target audience. For example, AI can dynamically adjust the visuals and copy of an email campaign on the basis of a customer's browsing history, ensuring the content is always relevant.

From a *productivity/internal* perspective, AI automates the process of creating and testing content. Instead of relying on manual input from the creative team, AI tools can quickly generate multiple versions of an ad or social media post, automatically optimizing the content for the best possible engagement.

By using AI in content development, marketers can create more personalized, engaging content at scale, all while reducing the time and effort needed to produce it.

Campaign Execution and Deployment: Streamlining with AI

Executing and deploying a campaign requires ensuring that all elements—ads, emails, and social media posts—are scheduled and launched at the right times, across the right channels. This process can be labor-intensive, requiring constant attention to detail. AI simplifies this process by automating many aspects of campaign execution, ensuring consistency and optimizing in real time (*productivity/internal*).

By analyzing customer data, AI can automatically generate personalized messages for each individual, from email subject lines to product recommendations. This helps brands create a tailored experience for their customers, even when dealing with large-scale campaigns, driving better outcomes (*growth/external*).

Measurement and Optimization: Predicting Performance with AI

The final step of the marketing cycle is measuring campaign performance and optimizing on the basis of data. Traditionally, this step involves tracking key metrics such as ROI, engagement, and conversions, and making adjustments for future campaigns. AI accelerates this process by providing real-time insights and predictive capabilities.

Generative AI can quickly create multiple variations of marketing content, making A/B testing more efficient. AI can also analyze which variations are most likely to perform better according to historical data, helping marketers optimize content quickly.

AI's *growth/internal* capabilities allow marketers to forecast campaign performance early on. Predictive models can analyze initial data and suggest adjustments before the campaign ends, helping marketers optimize in real time rather than waiting until after the fact. Moreover, AI automates performance tracking, continuously measuring key metrics and adjusting campaigns as needed to ensure optimal results.

AI's *growth/internal* capabilities allow for real-time optimization. If an ad isn't performing as expected, AI can adjust targeting, bids, or creative elements on the fly, ensuring that the campaign remains effective throughout its life cycle. In addition, AI can schedule and distribute content automatically, freeing up marketing teams to focus on higher-level strategy.

With AI, campaigns are more efficient, consistent, and responsive, allowing marketers to focus on driving innovation rather than managing the minutiae of execution.

By integrating AI into measurement and optimization, marketers can continuously refine their campaigns, ensuring they are always performing at their best.

THE FIVE RISKS OF USING AI IN MARKETING

Before we move on, it's crucial for marketers to recognize and mitigate the risks associated with AI's use. These risks, if not properly managed, can outweigh the potential advantages and lead to costly errors, breaches, or misunderstandings.

In this section, we'll explore the five key risks marketers need to be aware of when implementing AI tools and technologies in their marketing operations. These risks span from issues related to data security and accuracy to the very real threats of impersonation and ownership disputes.

1. Leakage risks
2. Accuracy risks
3. Ownership risks
4. Personnel risks
5. Impersonation risks

Let's dive into each of these risks and discuss how you, as a marketing practitioner, can navigate these challenges while harnessing the power of AI.

Leakage Risks: Protecting Your Proprietary Data

One of the most significant risks associated with the use of AI in marketing is leakage. When using AI tools, marketers often input a large amount of proprietary, confidential, or sensitive data. For instance, customer information, internal research, or marketing strategies might be entered into an AI tool in the process of generating insights, automating content, or optimizing campaigns. The problem arises when this data is improperly handled or shared, leading to unintended exposure.

A high-profile example of this risk occurred when a group of Samsung engineers accidentally entered proprietary code into OpenAI's ChatGPT.¹ The result was that confidential data leaked back out when other users interacted with the system, putting sensitive company information at risk. This is not just a one-off incident. AI models, particularly those that operate

on open platforms, can inadvertently share data across different users or systems.

For marketers, the primary concern is understanding where and how the data they input into AI tools is being used. To mitigate leakage risks, companies should have clear guidelines about which AI tools are sanctioned and which are not. Marketers should also ensure that any proprietary or customer-specific information entered into AI tools is properly protected. It's critical to ask questions such as "Where does the data go once it's entered?" "Who has access to it?" "What happens if it leaks?"

By creating secure systems and understanding the data flow, marketers can avoid unintentional leaks and protect their valuable information.

Accuracy Risks: Ensuring Reliable Output

While AI can quickly generate impressive outputs—whether it's writing content, analyzing trends, or creating personalized customer experiences—accuracy remains a fundamental concern. Unlike traditional algorithms that are trained to predict outcomes, generative AI produces outputs that are based on patterns it has learned from large datasets. These outputs might be highly convincing on the surface, but they can often contain significant errors or omissions.

For instance, generative models like ChatGPT have shown great promise in tasks such as content creation. However, these models are not infallible. *Hallucinations*—a term used to describe when AI generates content that is factually incorrect or entirely fabricated—are common. Inaccuracies could range from minor mistakes to major issues. Consider a chatbot offering inaccurate customer service responses, or AI generating false claims about a product or service, potentially leading to customer dissatisfaction and damage to the brand.

For marketers, the key to managing accuracy risks lies in understanding the context and limits of AI tools. While AI can be fantastic for brainstorming, ideation, and generating initial drafts, it should not be relied upon to produce fully accurate content or make complex decisions without human oversight. Marketers should always verify AI-generated content for factual accuracy before it is used in campaigns or customer-facing materials.

The question to ask is, “What degree of accuracy is required for the task at hand?” For example, if AI is being used to ideate new product concepts, some creative inaccuracy might be acceptable. But when it comes to customer service or legal matters, ensuring that AI provides accurate, reliable outputs is critical.

Ownership Risks: Navigating Intellectual Property

With generative AI’s ability to create unique outputs, one of the pressing concerns for marketers is ownership. In many cases, AI generates content that could be considered intellectual property—from marketing copy to design work or even new products. However, the ownership of these AI-generated outputs is not always clear-cut.

In the United States, for example, recent court rulings have made it clear that works created solely by AI—without significant human input—are not eligible for copyright protection.² This creates a dilemma for marketers: If AI generates an image or a piece of content, do they actually own the rights to it? Moreover, if the training data that powered the AI includes copyrighted materials, this could expose marketers to liability for inadvertently infringing on intellectual property rights.

When using generative AI tools, marketers must understand the terms of use of the tools they’re employing. This includes knowing whether the AI platform owns the rights to any content it generates or whether the marketer is granted full ownership. In addition, marketers should ask whether the model was trained on copyrighted or proprietary data, which could pose legal risks if the AI generates content that is based on protected material.

Ownership risks extend to the right to use AI-generated content. Can marketers repurpose this content in ways they see fit, such as in ads, social media, or other marketing channels? Understanding these legal nuances is essential to avoiding costly legal disputes down the line.

Personnel Risks: The Impact on Jobs and Workforce Dynamics

As AI continues to evolve, it’s inevitable that it will have a profound impact on marketing teams and job roles. In many industries, AI tools are starting to automate tasks previously handled by humans, such as content generation, customer service, and data analysis. While these tools can make teams more efficient, they can also disrupt traditional job functions and workforce structures.

Consider the example of software developers, whose roles are increasingly being replaced or supplemented by AI code-writing tools. In the marketing world, tasks such as writing copy, designing graphics, and even crafting entire marketing strategies may soon be handled by AI agents, which will challenge traditional job descriptions and workflows.

The introduction of AI tools will also necessitate changes in training programs, as marketers will need to develop new skills to manage and work alongside AI systems. The way companies structure their teams, measure performance, and offer incentives will also change. Marketers will need to adapt to a new work environment in which collaboration between human teams and AI systems is the norm.

A key risk here is the misalignment between existing job roles and the capabilities of AI tools. To mitigate this risk, organizations should be proactive about upskilling their teams to work alongside AI, ensuring that employees are equipped to handle AI-augmented workflows and leveraging AI's capabilities to their advantage. This includes integrating AI tools in ways that enhance human creativity and strategic decision making rather than replace humans entirely.

(We will talk much more about AI's impact on your marketing team and workflows in [chapter 14](#).)

Impersonation Risks: Managing AI-Generated Deepfakes

Finally, one of the most concerning risks tied to AI is impersonation. With the rise of deepfake technology and AI-generated avatars, it has become easier than ever for bad actors to impersonate executives, brands, or even customers. The ability of AI tools to generate convincing yet entirely fabricated audio, video, and text content presents significant risks, particularly in terms of brand reputation and cybersecurity.

For example, deepfake technology has been used in scams in which AI was used to clone a chief financial officer's voice, instructing employees to transfer large sums of money to external accounts.³ In the marketing context, deepfakes could be used to impersonate brand spokespeople or even mislead customers with fake promotional content. This could cause not only financial loss but also reputational damage to the brand. Note that all brands are subject to an impersonation risk, whether your company is AI-first or not; however, given how realistic AI-generated content can appear, marketers must prepare for the inevitable by implementing strong

security measures. This could include multifactor authentication to verify the identity of those interacting with the brand, as well as monitoring channels for deepfakes and AI-driven impersonation campaigns. It's important to have a crisis-management plan in place, ensuring that the company is ready to respond quickly and effectively should an impersonation risk materialize.

NAVIGATING THE RISKS AND REWARDS OF AI IN MARKETING

AI is transforming the marketing landscape, providing new ways to engage customers, optimize campaigns, and create content. However, as with any powerful technology, it comes with significant risks that marketers must be aware of. The five risks outlined in this chapter—leakage, accuracy, ownership, personnel, and impersonation—are just the beginning of what needs to be addressed as AI becomes more ingrained in everyday marketing practices.

The good news is that these risks are manageable. By implementing appropriate safeguards, being vigilant about the data entered into AI tools, and staying informed about the legal and ethical implications of using AI, marketers can mitigate these risks and harness the full potential of AI to drive growth and innovation.

As we continue to embrace AI, the key for marketers will be balancing its incredible capabilities with a responsible, ethical, and informed approach. With the right mindset and preparation, the risks associated with AI will become manageable, and the rewards will far outweigh the challenges.

In summary:

- AI in marketing has evolved beyond simple productivity tools and now enables both internal efficiencies and transformational customer experiences that drive business growth.
- A structured 2x2 framework—mapping *productivity versus growth* and *internal versus external* applications—helps marketers strategically prioritize how and where to apply AI for maximum impact.
- Internal productivity gains include automating repetitive tasks, such as reporting, segmentation, and campaign deployment, allowing teams to focus on more strategic and creative work.
- AI also drives internal growth by enhancing strategy development, improving media planning, and enabling more sophisticated, data-driven decision making across the marketing process.
- Externally, AI improves productivity through tools such as chatbots and dynamic personalization engines, which deliver faster, more consistent customer experiences without changing the core

business model.

- The most transformative use of AI lies in external growth applications, in which AI redefines the customer experience entirely—scaling personalized services, like Ikea’s AI-powered interior design assistant, in ways never before possible.
- Mapping the classic marketing cycle to the four AI quadrants helps marketers understand when AI can accelerate execution versus when it can fundamentally reimagine customer engagement.
- While the opportunities are vast, marketers must also remain vigilant about key risks—leakage, accuracy, ownership, personnel, and impersonation—and build responsible AI strategies that manage these risks without slowing innovation.

Now that you have a thorough understanding of what AI is all about and where it can be applied in marketing, we can shift our focus to the real reason you’re here—to learn how the AI Marketing Canvas can help you create a solid strategy for supercharging customer relationship moments at every opportunity.

Next we’ll look at how to get started. That is, how do you go from zero to hero by actually implementing AI in marketing? What do you do first, then second, and so on? Stick with us, because that’s exactly what the next section of this book is all about—we’ll share our five-step framework, the AI Marketing Canvas.

PART 3

THE AI MARKETING CANVAS

Your Five-Step Plan

7

Elements of the AI Marketing Canvas

“With machines that can experiment with tactical marketing execution far more speedily, systematically, and consistently than any human, the marketers who want to make best use of these machines will require frameworks (and mindsets) that support and encourage iterative learning and experimentation.”

—Konrad Feldman, founder and chief executive officer, Quantcast¹

WHAT ACTUALLY IS YOUR PLAN TO DEPLOY AI IN MARKETING?

Let’s say your chief executive officer stops you in the hallway, says she has read an article about AI and marketing in the *Wall Street Journal*, and asks what your strategy is for applying AI to marketing. Many marketers (not you) would answer her with something tactical and executional, such as “We are testing YouTube’s new AI-powered ad-placement tools to automatically serve the most efficient combination of ad formats at the individual user level.”² There are two problems with that response: first, it’s about tactics, and thus does not answer her question, which is about your strategy, and second, it’s not going to do anything to position you to ask for more resources to expand your initiatives later.

Strategy at its foundation is about making choices.³ It’s making a bet. In other words, saying, “If I choose X series of actions (which includes tactics and execution), Y outcomes should happen.” It’s not about trying every new shiny object and activity in marketing. It’s about making some assumptions and then creating a thoughtful, comprehensive plan filled with activities that you believe will result in three things:

1. Incremental profitable growth
2. Brand equity built over time
3. Good outcomes for your team, company, and community

For your chief executive officer, for your team, and for *yourself*, you need a strategic plan for how to use AI in marketing! You need a strategy to

get your marketing from being 100 percent hand-developed and hand-determined today to being machine-assisted, if not machine-determined, tomorrow.

Between our executive education classes and consulting projects, we encounter a wide swath of senior marketers, and we've been asking them what their plan is for applying AI to marketing. The consensus is that this is a very difficult question to answer. It's hard for a few reasons. Few marketers have a good grasp on AI and machine-learning technology and how to apply it to those four customer relationship moments. Also, there is no commonly used AI-and marketing-specific strategic road map or planning tool template they can use to confidently chart a path forward. This much is clear: without some guidance, brands will either remain paralyzed and do nothing or aim too high and do too much involving tactics only, which can lead to catastrophic failure.

Note: Failure can be useful. When done incrementally, it allows you to learn safely. More about that will be discussed in [chapter 10](#). The failure we're referring to here may be something like the launch of an expensive initiative that takes a million dollars and a year to develop but doesn't deliver any consumer value. It's an important distinction.

To fill this strategic void, we've created a strategic-planning template for how to implement AI into your marketing tool kit, step by step. We call it the AI Marketing Canvas.

WHAT IS THE AI MARKETING CANVAS?

You already know what marketing is, but it's useful in this case to define the other terms, *AI* and *canvas*.

Artificial intelligence, or AI, is the capability of a machine to accomplish tasks in a "smart" manner, when the machine is a high-powered computer system equipped with the ability to process massive amounts of data quickly and accurately. (We covered all the elements of AI you need to know in [chapters 4](#) and [5](#).) The word *canvas*, of course, is widely used to convey a meaning in business strategy. You may be familiar with the popular Business Model Canvas, first proposed by Alexander Osterwalder in a 2004 dissertation, as a managerial tool that would allow a firm to easily express its business logic.⁴ It's one way to distill all the critical strategic components of a business with nine building blocks in a one-page visual, as

shown in [figure 8](#). The format of the traditional Business Model Canvas is the inspiration for the AI Marketing Canvas.⁵ Presenting all the key elements of the business on one page allows you to see the big picture and make better decisions about what you might need and want to do to achieve your objectives. The typical Business Model Canvas is composed of a firm or product's key strategic building blocks: value proposition, infrastructure, customers, finances, and so on.

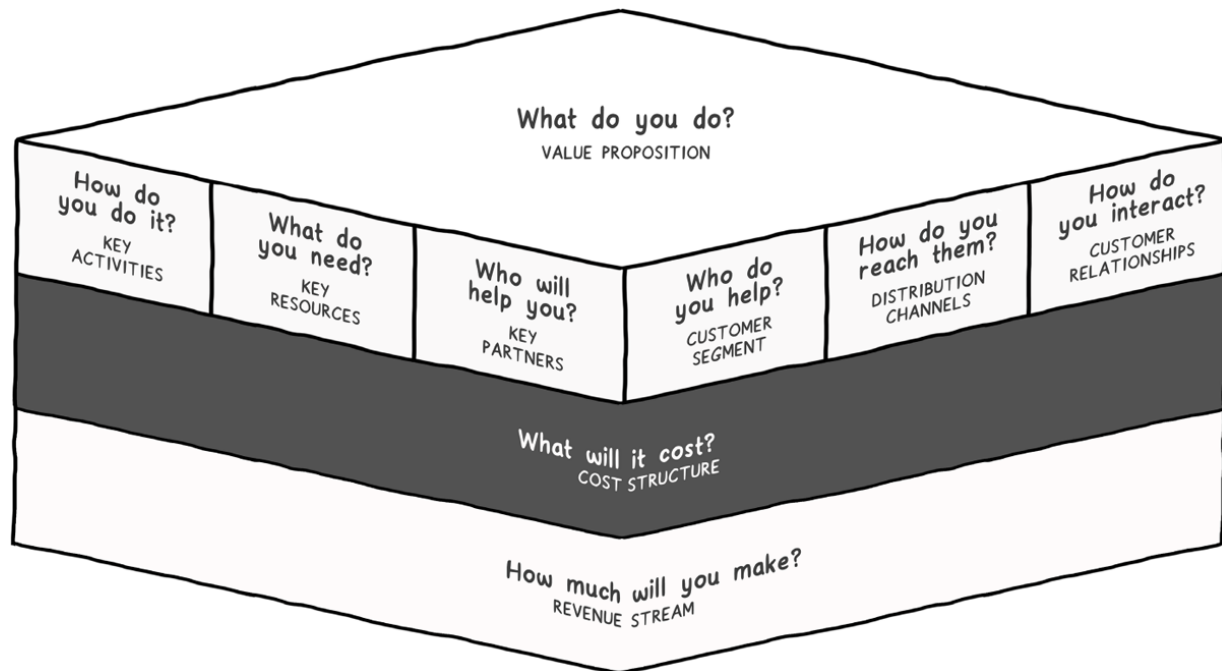


FIGURE 8. The Business Model Canvas

We are big fans of the Business Model Canvas and teach it in our MBA classes, so we naturally thought a one-page strategy format would lend itself to the framework we wanted to create. After numerous iterations inspired by helpful feedback from many great marketers, and some help from our talented graphic designer, we arrived at the AI Marketing Canvas.

The AI Marketing Canvas is a framework you can use to plan and execute informed strategic action on AI and machine learning for marketing at whatever steps (there are five) you're energizing right now—whether you're still building your digital foundation or already have a solid digital/data analytics foundation in place and are looking to the canvas to help you navigate from one step to the next. You can use the AI Marketing Canvas to explain to your marketing peers and management the different levels of AI and what you want to do with them as a brand. It also serves as

a road map for what is required if your firm aspires to operate more like a platform.

OVERVIEW OF THE AI MARKETING CANVAS

Let's look first at a condensed overview of the AI Marketing Canvas in [figure 9](#), so you can get your bearings. (Recall we gave you a preview of the canvas in [chapter 3](#).) There are five steps that every successful brand addresses: foundation, experimentation, expansion, transformation, and monetization. The way the AI Marketing Canvas works is that you start at the bottom and work your way up through the steps. As you ascend, more and more AI and machine learning is at work, personalizing more and more relationship moments in the consumer's experience. Each step has specific objectives, and as you ascend through the steps, the objectives from the previous steps will continue to be in play. For example, if you are leveraging AI-informed programmatic advertising in step 2, you likely would continue that as you pushed your AI and machine-learning capabilities further in steps 3 and higher.

Think of the AI Marketing Canvas as a game board. The more squares you can cover, the more AI will be applied to each customer relationship moment, and the better able you'll be to create the personalized customer experience that will allow you to win those moments, now and in the future.

Going back to the scenario that opened this chapter, if you've used the AI Marketing Canvas to create an AI strategy, instead of telling your chief executive officer, "We are testing YouTube's new AI-powered ad-placement tools to automatically serve the most efficient combination of ad formats at the individual user level," your better and more strategic short statement could be this: "We have developed a strategic road map called the AI Marketing Canvas that lays out a path for our organization to advance in five specific steps or levels of competence over time, deliberately and systematically moving us 'from zero to hero' with AI, in accordance with best practices of leading brands. I'd love to share it with you." This level of response also functions as a first step to getting C-suite support for funding all the other options you'll be presenting later on.

		AI ACQUISITION	AI RETENTION	AI GROWTH	AI ADVOCACY
STEP 5 MONETIZATION 	AI to drive significant new revenue streams and/or new business models. Serve external customers as a platform.				
STEP 4 TRANSFORMATION 	AI to automate complete sets of marketing activities across the full customer journey. Strong in-house competency required - "Build or buy."				
STEP 3 EXPANSION 	AI across a broader set of marketing activities. AI 'Marketing Champion' named. Efforts coordinated and in-house capabilities begin to develop.				
STEP 2 EXPERIMENTATION 	AI-powered tools from third parties and vendors to get some quick learnings/ wins at individual moments in the customer journey. "A thousand flowers..."				
STEP 1 FOUNDATION 	Prerequisite for doing any AI or machine learning.				

FIGURE 9. Overview of the AI Marketing Canvas

COMPLETE AI MARKETING CANVAS

Now let's take a look at the full detailed canvas ([figure 10](#)). You'll notice that each level has specific objectives and key questions for each step and customer relationship moment. Don't worry about exactly what to put in each square just yet; we'll go into detail about that later. Your job at the moment is to familiarize yourself with the canvas and its guideposts.

Remember, you start at the *bottom* with step 1 (foundation), and work your way up the canvas to step 2 (experimentation), step 3 (expansion), step 4 (transformation), and finally, if appropriate, step 5 (monetization). Eventually you will re-create this canvas and begin to populate it with the AI and machine-learning approaches required to supercharge the customer relationship moment or moments for the step on which you're currently

focused. We'll show you several completed examples for each step later in this book.

We also encourage you to use this canvas in your long-range strategic marketing planning to communicate to stakeholders the people, processes, and culture shifts that likely will be required for success—and profit—in the long term. Hopefully, you are already through building your digital foundation, but even if you're not, keep reading. In [chapters 8 and 9](#), we'll provide some work-arounds that will allow you to get the AI and machine-learning show on the road so you can use the results to build a case to management for getting it done. There is also a diagnostic in [chapter 15](#) that will help you revisit and integrate all this material, figure out where your firm is on the continuum, and decide what to do first, second, and third.

	AI ACQUISITION	AI RETENTION	AI GROWTH	AI ADVOCACY
STEP 5 MONETIZATION 	<i>Uses AI to drive significant new revenue streams and/or new business models. Serve external customers as a platform.</i>			
	Q. What is the business model?			
	Q. How could AI generate a new revenue stream?			
STEP 4 TRANSFORMATION 	<i>Uses AI to automate complete sets of marketing activities across the full customer journey. Strong in-house competency required - "Build or buy."</i>			
	Q. Should I build in-house or buy a company with the capabilities?			
	Q. Where will I find the talent required?			
	Q. What AI practices set our marketing apart?			
STEP 3 EXPANSION 	<i>Uses AI across a broader set of marketing activities. AI 'Marketing Champion' named. Beginning to in-source development and capabilities.</i>			
	Q. Do I go deeper into this customer relationship moment or branch over?			
	Q. Who is my internal core competency team across functions?			
STEP 2 EXPERIMENTATION 	<i>Uses AI-powered tools from third parties and vendors to get some quick learnings/wins and outcomes for a few marketing activities.</i>			
	Q. What are the personalization value pockets?			
	Q. Which customer relationship moments should I focus on first?			
	Q. Where is the data?			
	Q. Which vendor has the appropriate AI-powered tools?			
STEP 1 FOUNDATION 	<i>Begin building digital infrastructure by collecting first party data across the business. Seek adequate amounts of quality data to begin training machine learning modules and supercharge customer relationship moments.</i>			
	Q. Do we have 1 st , 2 nd and/or 3 rd party data on customers and prospects?			
	Q. Are the processes for collecting data automated?			
	Q. Can we store and access structured and unstructured data consistently/reliably?			
	Q. Can we connect all the data to give a holistic view of customers/prospects?			
	Q. Does the data have enough consumers and time span for AI/ML to work?			

FIGURE 10. Complete AI Marketing Canvas

In summary:

- The AI Marketing Canvas is a one-page strategic road map or template you can use to add AI and machine learning to your marketing tool kit.
- The canvas was inspired by the Business Model Canvas that originated with a 2004 dissertation by Alexander Osterwalder.
- The AI Marketing Canvas reflects five main steps that all brands we've studied have gone through to successfully use AI to supercharge their customer relationship moments. Those steps are foundation, experimentation, expansion, transformation, and monetization.
- Each step involves several key questions you should be able to answer before energizing initiatives in that step.
- When your chief executive officer or your team asks, "What's the plan for AI and marketing?" you can now say you are following the five steps of the AI Marketing Canvas to increasingly implement AI deeper across your marketing tool kit.

Now that you've seen the AI Marketing Canvas and know how it works, it's time to begin our journey through the five steps, beginning with the next chapter, "Step 1: Foundation."

8

Step 1: Foundation

“Tall buildings need stronger foundations. The edifice of the modern corporations will be built on the foundation of data they use to constantly learn from.”

—Sunder Madakshira, chief executive officer, Rezolve AI¹

The first step of the AI Marketing Canvas, foundation ([figure 11](#)), speaks to the digital infrastructure required to consistently collect first-party consumer-focused data across the business—quality data you can use to begin to train the machine-learning and large-language models to optimize the four customer relationship moments (acquisition, retention, growth, and advocacy). The key questions for implementing the foundation are as follows:

- Do we have first-party, second-party, and/or third-party data on customers and prospects?
- Are the processes for collecting data automated?
- Can we store and access structured and unstructured data about customers and prospects in a consistent and compliant manner?
- Can we connect all the information to obtain a single, comprehensive view of customers and prospects?
- Does the data cover a large number of customers and prospects over a period sufficiently long for AI and machine-learning algorithms to be effective?

Starbucks, for example, has amassed a database of over thirty-four million active Starbucks Rewards members as part of a program it first deployed in 2009.² These members provide Starbucks with a mind-boggling amount of valuable personal data, including what they buy, how often they buy, and where and when they buy. Such data is useless, however, unless there exists an efficient and accurate way to process it and extract insights from it. The only way to achieve that is to engage technology to help, and that is exactly what Starbucks did by launching its Deep Brew initiative in 2019.³ In the company’s annual report that year, Kevin Johnson, Starbucks president and chief executive officer at the time, wrote, “We are leveraging AI technology in many ways as part of an

initiative called Deep Brew. . . . Deep Brew is . . . already being applied to personalize customer offers and recommendations on our mobile app to improve the customer experience.”⁴

If, like Starbucks, you aim to personalize the consumer experience, you need to know firsthand what consumers are doing at every relationship moment. To achieve this goal, you first need a reliable way to acquire clean data. You must build a digital infrastructure that will produce outputs you can feed to AI and machine-learning systems. These systems will then learn from that data and use those insights to make predictions about what your consumers actually want.

Without a robust digital infrastructure in place, you won’t be able to amass the volume of clean data the machine systems (algorithms) need to produce meaningful outputs (predictions). To amass those millions of loyal users who are the main source of data for the Deep Brew initiative, Starbucks has made continuous refinements to the technology in and around its Rewards app over a period of *fifteen years*. If you weren’t fortunate enough to have started building it fifteen years ago like Starbucks did, the next best time to begin is *today*.

		AI ACQUISITION	AI RETENTION	AI GROWTH	AI ADVOCACY
STEP 1 FOUNDATION	Begin building digital infrastructure by collecting first party data across the business. Seek adequate amounts of quality data to begin training machine learning modules and supercharge customer relationship moments.				
	Q. Do we have 1 st , 2 nd and/or 3 rd party data on customers and prospects?				
	Q. Are the processes for collecting data automated?				
	Q. Can we store and access structured and unstructured data consistently/reliably?				
	Q. Can we connect all the data to give a holistic view of customers/prospects?				
	Q. Does the data have enough consumers and time span for AI/ML to work?				

FIGURE 11. AI Marketing Canvas, step 1: Foundation

BECOME DATA-CENTRIC

If your firm's ultimate goal in developing your foundation is to hone your ability to track consumer behavior and preferences, you'll want to focus on getting the following things into place:⁵

- Automation of basic processes involving substantial amounts of data—especially in areas where intelligence from analytics or speed would be an advantage. An example is an insurance firm that automates its processes for collecting benchmark pricing data so it can update its quotes every fifteen minutes.
- Structured analytics and centralized data processes with reporting that provides a big-picture view across channels. For example, a retail category manager should have access to a complete picture of historic customer data so they can see things like which products have been popular with which customers, what has sold in which channel, and between which products customers have switched.
- Connected databases and the ability to collect and store first-party customer data whenever possible (as in the case of Starbucks Rewards).
- Data quality processes that ensure the way data is collected (input) and delivered (output) is uniform and complete (i.e., “clean”). For example, the product reviews are all recorded accurately, and they are attributed to the right customer who wrote the review and the right product.

Again, the goal here is to gain access to tons of *clean* data collected directly from consumers, which can then be fed to a machine that runs algorithms on that data so it can learn and predict things about those consumers. If you're a larger firm, you probably already have some systems in place that will allow data to be transferred directly from your database to the machine doing the work. However, the more divisions and channels you have, or the more you've grown through acquisition, the more challenging it will be to connect and standardize that data. Once everything is finally in order, however, the benefits will accrue faster because you will be starting with more data. On the other hand, if you're a small firm with one product and a direct-to-consumer relationship, transferring the data to a machine may be as simple as exporting the data to a .csv file for upload to the machine. The point is that if you want to personalize your marketing, you have to be focused on capturing as much consumer-focused data as possible.

Describing exactly how to proceed with building your digital foundation is outside the scope of this book, and besides, many great books have already been written on the topic. *The Digital Transformation Playbook* by David L. Rogers is one of the best (see note 5), and *The Data Advantage* by José Antonio Martínez Aguilar is another one we like.⁶ In *The Data Advantage*, Aguilar said that data and information are the fundamental tools

for decision making and for finding opportunities. The more and better data that you can activate, the more it will improve your company and create more data. Of course, having this data is a condition of achieving further success, but you need to make use of it wisely in order to reap those benefits. If your firm is already there, great! Take your customer-focused data and proceed to step 2, with our blessing.

Caveat: Even if your firm is already in motion, realize that it can take a while—sometimes a few years—for your firm and its technology team to build its digital foundation—that is, to shift from solely using a traditional data schema to using a customer-focused data schema.

In truth, when it comes to your firm’s digital foundation, there is no final destination. Once you get enough infrastructure in place to apply AI in a meaningful way, you will continue to refine your foundation, as different sources of data and different ways of storing and gleaning insights from it arise. The important thing is to work as hard as you can to get your digital foundation in place so you can begin an effective journey through the steps outlined in your AI Marketing Canvas.

In the next section, we’ll examine the difference between traditional data schemas and the customer-focused schema that you’ll be creating.

THE TRADITIONAL DATA SCHEMA VERSUS THE CUSTOMER-FOCUSED DATA SCHEMA

The Traditional Data Schema

The traditional data schema in most firms is focused on reporting by entity (lawn and garden, sporting goods, fashion), basic customer information (name, shipping address, email), and sales. It is focused on tracking the performance of a *function*. In this model, which could reflect the traditional data schema of a consumer products company, data is collected and stored separately by functions such as manufacturing, retailers, and the firm’s finance and sales departments. If you’re the marketing leader of Raj’s Super Soap brand and looking for data, and your firm is limited to the traditional data schema, here is the type of data that will be available to you (maybe):

- The factory can provide you with data about how many of each stock-keeping unit (SKU) were produced and which stores the items were shipped to.
- The retailers can provide data on things like how many Raj’s Super Soap SKUs they have sold in which category and on which days they have sold the most.

- Your finance department can tell you how many Raj's Super Soap SKUs you've sold this month, whether you're on track to meet your goals, and which products are performing.
- The sales department can tell you information about your customers (big-box stores, department stores, etc.), but in a traditional data schema, it will have no direct insights into the consumers who are buying those products.

The Customer-Focused Data Schema

In contrast, a customer-focused data schema calls for tracking *consumer* behaviors and preferences. As part of its digital foundation, your firm should be connecting all its data so you can use it to make predictions about consumers and personalize their experience. Data is organized per customer, and AI supercharges the data to generate custom creative messaging for each customer in real time.

In a customer-focused data schema, the consumer experiences many forms of stimuli as part of the acquisition process. They may see your TV or print ad, visit your optimized website, see an optimized display ad while they're searching Google, or hear about your brand on social media. Let's say as a result of that stimulus, the consumer takes action in one of these ways:

- She calls the 1-800 number offered by your TV commercial, and the agent answers and collects her name, street address, and email.
- She visits the website listed on your magazine print ad and trades her email for a free e-book full of laundry tips, acquiring a cookie on her browser that allows you to remarket to her later. (Note: We are uncertain on the future of the third-party cookie. Despite a decade of headlines warning about its death, the third-party cookie continues to help marketers track customers across their internet activity.)
- She clicks on the display ad, which again offers her an opportunity to trade her contact information for more valuable content.
- She sees your ad on social media offering a coupon for one dollar off her next purchase of XYZ soap. She clicks the link and trades her name, address, email, and other personal information in exchange for it.
- She goes to your website using her mobile device, puts in her information, and subscribes so a predetermined amount of XYZ soap is delivered to her home every month.

To achieve the one-to-one personalization you're after, your mission must be to find as many ways as possible to track and collect customer-focused data at every customer relationship moment (in a compliant and respectful of privacy way, of course!).

If you have no customer-focused data, does that mean you have to wait to play? No! You likely *do* have access to some data; you just have to know where to look. And the further behind the curve you are right now, the more

important it is that you do start to play. You need to begin to amass a series of positive data-driven outcomes—in other words, evidence of what the firm has to gain, as well as what it's losing out on by not getting the rest of its digital house in order posthaste.

THE NEED FOR CLEAN DATA

To get started, all you need is a concentration of *clean* customer-centric data around at least one moment in the customer relationship. If your firm is still fine-tuning its digital foundation, you may find that there is a lot of data, but it's all locked up in disparate systems. And even if you had access to that data, it would be of limited value because it is not necessarily customer-centric. That's OK. There are a couple of work-arounds.

Your best bet is to go after data that has been automatically captured with technology, meaning that it has been collected without human intervention. If a human is responsible for inputting the information, we can pretty much guarantee that there will be issues with consistency, and that's a problem. For the machine to learn, the data you give it has to be clean. Here are some places to look for machine-generated data:

- Programmatic advertising (for example, double-click data)
- Google Analytics, which automatically records who is doing what on your site
- Cookies (all-digital access across platforms)
- Your website (product subscription information and direct sales)
- Recency-frequency-monetary (RFM) value tables from your direct marketing, direct mail, or catalog team
- Adobe's Marketo Engage or HubSpot, which will tell you when customers have visited, how many visits they have made, what transactions have occurred, how much money you have spent on digital and display ads, search, and so on
- Customer relationship management (CRM) systems, such as Zoho
- Enterprise sales-management systems, such as [Salesforce.com](https://www.salesforce.com)
- Data from paid advertising campaigns on Facebook and YouTube

Once you have the clean data, the next step is to see where else you can identify and capture inputs and outputs that advance your knowledge of who your customers are and what you know about them over time. Here you'll be looking to extract consumer data from existing systems in your firm—including unstructured data, such as product reviews, that reside on your website or in customer service databases. (Use techniques such as dimensionality reduction to turn unstructured data into structured data, as described in [chapter 4](#).)

If you are selling a product or service directly to the customer, the information should be there. However, if you are a big brand that sells to a retailer such as Walmart or Amazon, the amount and value of the consumer data you will receive from them will be limited. That's why you need to put into place a way to identify and connect with consumers directly. You need a way to track their behaviors—whether they have visited your store or website, whether they click on your ads, and so on—that the machine can use to predict and provide output. You may already be doing the following:

- Trading discount offers for customers' email addresses (and more)
- Trading white papers for information (business-to-business, or B2B)
- Providing a store locator with functionality through a mobile app
- Participating in loyalty programs in which the provider gives you access to the data
- Asking for callback numbers on customer service calls, which can be matched with data from third-party vendors
- Collecting email addresses and zip codes at the sales counter, which you can use to find out more about customers from third-party vendors

Note: Certain businesses, such as insurance companies, financial services, hotels, and airlines, already have this information because “fully identifiable customers” is a core of their business model. These firms already know who their consumers are and have been collecting information about them for a long time. Thus they have a head start in that respect.

Getting your data house in order is about locating and organizing sources of clean first-, second-, and third-party data so it can be fed into a machine that will apply algorithms to process it at light speed and find patterns that will lead to predictions about what the consumers want and need. The machine is not only taking in first-party direct-to-consumer data collected from web browser cookies but also processing second-party data, perhaps obtained from a noncompeting brand in the same category, plus data from an aggregator, which has been gleaned from publisher databases. Let's take a closer look at the different data types:

- **First-party data**, also known as direct-to-consumer (DTC) data, is information that you, the first party, have collected about your current audience. The most valuable data type, it is typically collected through website cookies and is a key component of site retargeting and CRM retargeting. Another very effective method of collecting first-party data is through a loyalty program. Once you amass enough first-party data, the machine will be able to begin making predictions about what the consumers' wants and needs will be in the future.⁷

We should point out that some marketers make the distinction between *zero-party* and *first-party* data, noting that the former is data customers directly volunteer to you, such as providing their

birthday when you ask or responding to a survey, whereas the latter is data you collect during a business transaction, such as their shipping address during the checkout process. While we recognize that this can be an important distinction, for our purposes here, we'll simply refer to all data you collect as first-party data.

■ **Second-party data** is another company's first-party data, typically acquired by making an arrangement to swap data with trusted partners who serve the same customers. This can be useful for beginning to expand your consumer network. For example, if your firm sells baby clothing, you might arrange to swap data with a retailer who sells baby soap because you both will have relevant first-party data about the customers who are buying in the same category.

■ **Third-party data** is the product of data aggregators who typically purchase it on a large scale from publishers. The benefit of this dataset is that it is extremely large; the downside is that it is available to everyone and thus not unique.

Third-party analytics can provide granular consumer data, such as browsing behavior and customer preferences, and can aid segmentation of your customers by product and insights into what they like. It's also useful for audience targeting and audience extension. For example, you could use third-party analytics to determine if a consumer who is reading about Samsung monitors is also looking at Dell products. Third-party data also can be collected by vendors on web properties they don't own. For example, a vendor may strike a deal with a sports website to cookie users who reach that site, and then sell that data to a consumer goods brand for its own use.⁸

Once you have enough clean first-party consumer data, you can begin to augment your AI and machine-learning marketing efforts with second- and third-party data, each of which provides you with different opportunities to learn more about those consumers. Wherever you are right now, the overarching goal of building your digital foundation has to be to find a way to connect with customers *directly* so you can track them through customer relationship moments over time.⁹ Maybe that's an app (e.g., Starbucks, Regal) or a DTC offering (e.g., Dollar Shave Club, Casper) that allows you to sell directly to customers.

IMPORTANT NOTE ABOUT DATA COLLECTION AND PRIVACY

It's critical that you carefully consider what you are doing and how you're doing it when it comes to data collection. Be aware that there are rules you must follow, depending on what data you're collecting and where: for example, the California privacy law, the Children's Online Privacy Protection Act (COPPA), the General Data Protection Regulation (GDPR), or the Health Insurance Portability and Accountability Act (HIPAA), to name just a few. More rules are being discussed and implemented in regions all around the world. It's vital that you check with your legal team to make sure you're fully compliant!¹⁰

To that end, beyond laws and regulations that govern what one *can* do, there are a host of other opportunities in the *should we* column, which are guided by ethics, morality, and cultural norms. University of Chicago economist Richard Thaler described it this way: “A good rule of thumb is we shouldn’t impose a set of rules that will create moral outrage, even if that moral outrage seems stupid to an economist. . . . If you treat people in a way they think is unfair, then it will come back and bite you.”¹¹

In their 2019 book *The Intelligent Marketer’s Guide to Data Privacy*, Robert W. Palmatier and Kelly D. Martin offered a series of tenets to keep in mind for effective privacy when marketing.¹² The best practices for responsibly managing customer data, according to these authors, relies on establishing a trusting relationship with customers and emphasizing data security. A relationship based on trust requires equitable transactions between customers and your organization (not just the brand). It involves only collecting data that is absolutely necessary for providing value to consumers and providing them with tools they can use to monitor how your firm is using their data, along with the ability or right to tell you not to use any of it!

Customers also appreciate firms that compensate them for the data they provide—for example, rewards or product discounts as well as free access to services such as credit monitoring that they can use to ensure the well-being of their data across firms. To achieve this trust, data privacy must become a top management priority, with a strong data security process in place, which includes tracking and reporting on metrics around customer data security and privacy. These activities also must be proactive, and not a knee-jerk reaction to the need for regulatory compliance.

CALLOUT: BUILDING TRUST IN AI

Building trust isn’t just about algorithms; it’s about how customers perceive, interact with, and ultimately *trust* the AI representing your brand. Academic research highlights several key dimensions marketing leaders must navigate to build and maintain this trust.

ANCHOR TRUST IN ETHICS AND TRANSPARENCY

Customers grant trust more readily when AI operates within clear ethical boundaries and its workings are understandable.

■ **Ethical Alignment:** Trust is higher when AI is used for practical (“utilitarian”) purposes like optimizing logistics rather than purely pleasure-based (“hedonic”) ones like entertainment recommendations, suggesting that customers value AI that serves clear, ethical functions.

Aligning AI ethics with the deeply held cultural and moral values of your customer base is also vital. Communicate these ethical foundations clearly.

■ **Transparency Overcomes Aversion:** People often exhibit “algorithm aversion,” a natural skepticism toward decisions made by opaque systems. Transparency is the antidote. Clearly explaining how AI makes decisions (e.g., in personalization engines or ad targeting) and what data is used, and acknowledging limitations significantly reduces this skepticism, especially in sensitive areas. Openness about potential errors is also crucial for maintaining long-term trust, as even minor errors can disproportionately erode trust.

DESIGN INTERFACES THAT FOSTER TRUST

The design of the human-AI interface is not merely cosmetic; it’s a primary driver of user experience and trust. How customers interact with your AI is their experience of your brand’s AI.

■ **Personalization with Purpose:** Effective personalization matches the AI’s approach to user preferences intuitively, offering tailored experiences without overwhelming users. Interfaces that accurately tailor recommendations significantly boost engagement and satisfaction. The goal is seamless, relevant customization, not excessive options.

■ **Strategic Communication:** How AI communicates matters profoundly. Research shows users often prefer AI for delivering neutral or negative information (perceived as unbiased) but prefer humans for positive news (seen as more empathetic). Tailor your AI’s communication style: leverage perceived neutrality where appropriate, but integrate humanlike warmth and empathy selectively (e.g., in customer service bots) to build rapport, always considering the context.

■ **Humanlike AI (Anthropomorphism):** Handle with care. Giving AI humanlike characteristics (voices, avatars) can enhance comfort and trust, sometimes making it seem even more “real” than humans. However, this carries risk. If customers feel deceived upon realizing they’re interacting with AI, trust erodes rapidly. Transparency is paramount: always clearly disclose when the customer is interacting with an AI, even a highly humanized one. This manages expectations and prevents backlash.

■ **Ethical Interface Design:** AI interfaces must operate within clear ethical guidelines. For instance, recommendation engines shape user preferences, and AI chatbots must be transparent about their limitations, especially in sensitive areas like emotional support, to avoid misleading users or causing unintended harm.

LEVERAGE SOCIAL DYNAMICS

Trust isn’t built in a vacuum; it’s socially influenced.

■ **The Power of Social Proof:** Customers are more likely to trust and adopt AI if their peers or trusted figures endorse it. Testimonials, case studies, and endorsements from relevant communities or influencers can significantly ease adoption, as seen in areas such as travel recommendations or financial advice. Leverage social proof strategically in your marketing communications.

Building trustworthy AI isn’t a technical task delegated to IT; it’s a strategic brand-building imperative. It requires continuous attention to the ethical grounding of your AI systems, transparency in their operation, thoughtful design of customer interfaces, and awareness of social context.¹³

The bottom line is this: in today's environment, data privacy is a *strength* in your marketing strategy, and thus needs to be addressed as such. Your customer has the data you need to be successful in your marketing efforts. Your success in collecting that consumer data hinges on their confidence that you will respect the information, protect it, and use it responsibly. It is in your organization's best interest to attend to their concerns.

NOW, NEXT, AND LONG

While there are ways to move forward *before* your digital foundation is complete, there is a limit to what you can and should do if that is your *now*. It may be tempting to jump into *next* and *long* before you're ready—beginning to bring in sophisticated AI solutions or other technologies before your processes are fully automated and your structured analytics and data-processing capabilities are in place.¹⁴ The problem is that without adequate clean data, you're not going to get the results you want. You'll likely create a lot of unnecessary complexity and chaos trying to manage disparate systems and partnerships, and you could spend *millions* in the process.

How important is clean data to success? Even Google Images needed clean data, in the form of ImageNet's hand-labeled images, to train its machines to determine what its images were. ("Is this a dog or a mop?")

In researching this book, we talked to marketing leaders of some really big brands who said AI for marketing is not even on their radar for a variety of reasons, including lack of good customer-focused data. If that's you, don't despair. Respect your firm's overall digital status and work within the constraints of the clean customer-focused data you have. Find a source of clean customer data and *get started*. You're still ahead of the game—but the gap is closing.

In the next section, we'll take a look at step 1 in practice by examining Unilever, one of many brands that has successfully built a foundation that allows it to leverage clean consumer data and AI to advance its business worldwide.

STEP 1 IN PRACTICE: UNILEVER

With annual sales of over €60 billion,¹⁵ Unilever is one of the world's top consumer products companies, selling four hundred brands—Dove, Axe, Knorr, Hellmann's, Rexona, Magnum, Dollar Shave Club, Seventh Generation, and scores of others—in a hundred and ninety countries. Its digital foundation employs a platform approach (Microsoft Azure), which is underpinned by a data lake approach.¹⁶ A *data lake* is designed to hold, process, and analyze structured, unstructured, and streaming data. Data is stored in its native format and processed only when needed, which is more efficient and allows operations to scale quickly. Data lakes are typically used in conjunction with traditional data warehouses. Unilever is now using AI across its business in at least four main areas: business planning, manufacturing, retailer and distributor sales, and marketing.¹⁷

■ **Business planning:** Sales and operations forecasting has evolved from regression and spreadsheet-based forecasting—and the need for business users to harvest data from disparate systems—to AI-driven forecasting with data drawn from one central repository: the data lake. Said Jane Moran, Unilever's global chief information officer, "With some of these tools we are building out data catalogues; that helps our business community really trust the data. And trust is an important thing to get your employees to really use the analytics you're providing."¹⁸

■ **Manufacturing:** Using data streaming from sensor-equipped machines, Unilever is creating digital models of its plants. This "digital twin" strategy uses machine learning and artificial intelligence to analyze massive amounts of data from connected devices so that plant engineers can make adjustments leading to more efficient and flexible production—for example, to predict the correct order of processes to get the most efficient batch time for shampoo or detergent.¹⁹

■ **Retailer and distributor sales:** Sales recommendations to its millions of customers—retailers and distributors—are now fully digitized, using AI to predict the right assortment at the right time and the right price.

■ **Marketing:** Unilever is using AI, machine learning, and voice-related technologies to deliver personalized and immersive experiences to Unilever's consumer platforms, such as All Things Hair.²⁰ The company is building its own database using online customer registrations, third-party sites that consumers visit, and data from store loyalty cards.²¹ Unilever is also looking to the capabilities of its twenty-eight "people data centers," which offer in-house programmatic capabilities, real-time insights, and in-house content production to advance toward its goal of one-to-one marketing at scale.²² One example is a proprietary real-time media mix model.

As if that's not enough, Unilever is also using AI in its recruiting process, which it has said has cut some seventy thousand hours from interviewing and analyzing candidates.²³

To learn more about Unilever's approach, we reached out to Peter ter Kulve, now president of Unilever's ice cream business and formerly its

chief digital and growth officer, where he led many of these initiatives. Ter Kulve said Unilever recognized that marketing decisions such as promotional spending and discounts to retailers could be made better with data-driven predictions. To achieve this goal, Unilever used the first-party-plus-second-party-plus-third-party method. It tagged all its media and related it all back to a single device ID. The attitudinal data, where possible, was matched with behavioral transaction data. Adobe has been Unilever's key partner in making all this happen.

One example involves Thailand, a country of around seventy million people, where Unilever has been offering stickers on Line, the popular social network. In one campaign for Dove, a sticker set amassed more than six million downloads. This process added customer information to Unilever's database, which now reflects almost a *third* of the Thai population.²⁴ This foundation of user data now allows Unilever to move to data-driven marketing and begin applying AI and machine-learning techniques necessary for one-to-one personalized marketing at each moment in the customer relationship—especially while launching new brands or product components. It also reinforces Unilever's approach to AI, which ter Kulve described as looking for “value pockets”—areas of the business where better decision making can lead to better outcomes.

Here's our take on how Unilever could leverage the principles of step 1 (foundation) in its marketing ([figure 12](#)). Before it could apply AI in these advanced ways, however, it first had to establish a data foundation.

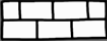
STEP 1 FOUNDATION 	<i>Begin building digital infrastructure by collecting first party data across the business. Seek adequate amounts of quality data to begin training machine learning modules and supercharge customer relationship moments.</i>	UNILEVER
	Q. Do we have 1 st , 2 nd and/or 3 rd party data on customers and prospects?	Yes, data about customer preferences on digital platforms, and tagged media communications.
	Q. Are the processes for collecting data automated?	Yes, after obtaining customer consent, Adobe helps us record digital marketing communications and customer response automatically. Data on promotional spending allocations to all retailers is recorded automatically.
	Q. Can we store and access structured and unstructured data consistently/reliably?	Yes, we have developed databases with an Adobe interface. Data is centrally stored on the Microsoft Azure platform, which acts as a unified "data lake".
	Q. Can we connect all the data to give a holistic view of customers/prospects?	Yes, we can obtain a single view of a customer's activity on digital platforms, and in response to digital marketing communications, but transactions are with retail partners.
	Q. Does the data have enough consumers and time span for AI/ML to work?	Yes, in places like Thailand, we have access to data from about 70 million people over multiple years.

FIGURE 12. AI Marketing Canvas: Unilever

STEP 1: KEY TAKEAWAY

Regardless of where your firm is in the construction of its digital foundation, finding a way to move forward must become a priority, so locate a source of clean data and go! Beginning the process of working with AI will allow you to demonstrate the potential of AI and machine learning to management, and it may help to bump it and your firm's overall digital transformation to the front of the line.

STEP 1: CHECKLIST

- ☐ Have a customer-focused database or access to a source of clean data.
- ☐ Be able to track a customer over time in at least one customer relationship moment.
- ☐ Be able to use data-given regulations.
- ☐ Have data rich enough in volume and variety to enable the use of AI.
- ☐ Focus on *now* rather than on *next* or *long*.

STEP 1: SUMMARY

- Step 1 (foundation) is a prerequisite. Begin building digital infrastructure by collecting first-party data across the business. Seek an adequate amount of quality data to begin training machine-learning models and supercharging customer relationship moments.
- Foundation is about developing the ability to see what consumers are doing at every moment of truth over time, and organizing that data so a machine can use it to learn and make predictions about what consumers want.

- It is composed of automated basic processes, structured analytics, centralized data processes, solid digital infrastructure with connected databases, and data-quality processes.
- Begin tracking consumer behavior and preferences in addition to departmental data (traditional data schema versus customer-focused data schema).
- Find a source of clean data. Your best bet is machine-generated data by programs such as Google Analytics, website subscription and direct sales info, RFM tables, and CRM systems.
- Find ways to connect with the consumer directly by trading a coupon or white paper for their email address, participating in a loyalty program, or asking for callback numbers on customer service calls.
- Seek to match first-party data with second-and third-party data to complete the profile of individual consumers.
- Practice good data-privacy hygiene!

Foundation is very much about *now*, and getting the data house in order. Proceed to *next* and *long* with caution. In the next chapter, we'll start to unpack how you can empower existing marketing activities for some quick learnings with AI-powered tools from third parties, and we'll cover the advantages of taking an Agile approach to getting AI and machine learning into your firm.

9

Step 2: Experimentation

“You no longer need to be completely integrated to be successful. What you need to be is fast.”

—Peter ter Kulve, president of ice cream, Unilever¹

First-party data in hand, you’re ready to jump in and begin learning how experimenting with AI and machine-learning applications can start to help you with your marketing initiatives.

In step 2, your goal is to take your data and apply existing AI-powered tools from third parties and vendors to get some quick learnings and some quick wins in a few marketing projects. Note that while it’s tempting at this point to want to go big, hire a floor full of AI computer scientists, create your own proprietary models, and apply AI everywhere—do not do that! Resist the temptation. Remember the old adage, “Crawl, walk, then run.” In our research, companies that tried to run with AI before they could walk typically ran into many challenges, problems, and setbacks. We all took a learn-to-drive course before jumping into any car, much less a race car! Consider step 2 as sort of your learn-to-drive course with AI, with some help from your vendors and partners. Many of them have already built very sophisticated AI tools, which—combined with your first-party data—can get you in the AI marketing game straight away.

[Figure 13](#) shows what this step looks like on our AI Marketing Canvas.

Let’s take a deeper look at exactly what your mission is for step 2.

		AI ACQUISITION	AI RETENTION	AI GROWTH	AI ADVOCACY
STEP 2 EXPERIMENTATION 	<i>Uses AI-powered tools from third parties and vendors to get some quick learnings/wins and outcomes for a few marketing activities.</i>				
	Q. What are the personalization value pockets?				
	Q. Which customer relationship moments should I focus on first?				
	Q. Where is the data?				
	Q. Which vendor has the appropriate AI-powered tools?				

FIGURE 13. AI Marketing Canvas, step 2: Experimentation

ORGANIZE A BUDGET

Your first task here is to shuffle your existing budget to divert dollars from human-led marketing to AI-led marketing for a series of small AI skunkworks initiatives. You also may already have some budget set aside for these kinds of innovation test projects. This is your opportunity to use it to experiment and collect some evidence around the impact that AI and machine learning can have on your marketing—without the need to gain funding for a big new AI initiative.

With your budget identified, the next step is to focus on the following three internal processes that will guide your AI and machine-learning experiments:

1. Find source(s) of clean consumer data.
2. Identify value pockets.
3. Select vendor(s).

FIND SOURCE(S) OF CLEAN CONSUMER DATA

If your company already has a solid digital foundation and plenty of clean, accessible consumer data, you can skip to the next section. If not, here are some potential to-dos:

- Reach out to your salesperson in charge of programmatic advertising and ask for a .csv file of the contact information collected by the system.
- Schedule a meeting with the person who has access to Google Analytics for your brand website to see what data is being collected.

- Reach out to your database administrators for your website and find out what and how much product subscription information, cookies, and direct sales data is available.
- Reach out to your direct marketing, direct mail, or catalog team and get them to track and send you reports on stimulus data.
- Connect with your Adobe or HubSpot account executive and ask them to provide you with an orientation of all the data they have been collecting.
- Meet with the sales department to see what, if any, consumer data is being collected by its customer relationship management (CRM) system or in its enterprise sales-management system.
- Meet with the person running paid advertising campaigns on Facebook, Instagram, TikTok, YouTube, or other social media and see what data is being collected and from whom.

What type of AI and machine-learning project you start with will depend on the type and volume of data that is available to you. If you are fortunate enough to have access to a lot of clean first-party consumer data, that's great. However, if you've got a limited amount of clean consumer data to work with, start by using AI and machine learning where the data quality is sufficient. Don't wait seven years until you have a perfect data warehouse!

IDENTIFY VALUE POCKETS

In any case, your immediate priority is to identify an area for improvement. It could be just one customer relationship moment on one product on one campaign. Select one issue, opportunity, or process in one moment (or stimulus) for which data-driven predictions and personalization would add value for consumers. Peter ter Kulve, president of ice cream at Unilever, refers to these opportunities as “value pockets.” A good place to begin your search for value pockets is to go back to the 2x2 framework in [chapter 6](#), the four use cases for AI in marketing. In which of those four quadrants do you want to begin your experimentation, this first AI test of working with your vendor partners?

Look for value pockets—problems that data and machine learning can solve—and then identify a vendor who has the capability to help you do it. Work with that vendor (new or existing) to develop some short-term programs to get some quick learnings. When we say quick, we mean one quarter—six months, max.

For example, when Budweiser was looking to reach users on the Chinese messaging, social media, and mobile payment app WeChat, it tapped Rikai Labs to create a branded AI chatbot using a WeChat mini-program called MiniBots. A mini-program is an app within the WeChat app for brands. A MiniBot combines the functionality of a chatbot and an app to create a rich

user experience.² When it comes to value pockets, it's useful to vet each opportunity by asking the following questions:

- Do I have data about customer preferences in this customer relationship moment?
- Would personalization of the customer relationship moment to consumer preferences be viewed as valuable by the customer?
- How does this application contribute to that?
- What *new* insights can this application provide about consumers?
- How does this application solve consumers' pain points?

Remember, you're not looking to implement a comprehensive application across all the customer relationship moments or marketing mix just yet. That will come later. You just want some quick learning for stimulus or individual moments so you can start building a case for how AI and machine learning can work in your firm.

SELECT VENDORS

Your final—and arguably most important—task is to meet with your existing marketing vendors and your agency and take an inventory. What AI solutions do they offer? Are you already using some of them? What has been the result? What else is available but not turned on? What consumer data already lies within your walls and within the walls of those applications?

Then, on the basis of specific pain points, value to the customer, and/or disruption opportunities, look for new vendor partners whose technology can advance your efforts in those areas. Use the form in [figure 14](#) as a checklist to organize your vendor conversations: first with your top existing vendors, then with potential new vendors you've identified either by referral or by searching online.

Vendor Checklist

Note: It's in your vendor's best interest to get more people using more new features because more people using more new features means more results they can talk about with others. If they are simply turning on additional features, you could make a strong case that there should be no additional cost—unless you add onto or change the scope of an existing project, which is another option. The reason why we recommend starting this way is that we want you to get your hands in the dirt as soon as possible. So upload that data, turn on that feature, try that new app, and *take note* of what happens. That said, remember that the machines will need time to learn, so don't expect your next batch of emails or Google Ads to magically deliver better results than your manual (human) approach.

Top existing vendors	Consumer data collected (type & amount)	Do they have an AI solution?	How can tech help: - pain point? - customer value? - disrupt disruption?	Testing (Y/N) and details	Outcome?	Plan to scale/expand?
						
Vendor A						
Vendor B						
Vendor C						

Potential new vendors	Consumer data collected (type & amount)	What is their AI solution?	How can tech help: - pain point? - customer value? - disrupt disruption?	Testing (Y/N) and details	Outcome?	Plan to scale/expand?
						
Vendor X						
Vendor Y						
Vendor Z						

FIGURE 14. Vendor checklist

In fact, when using Google's Smart Bidding feature, for example, it is not uncommon to see a *worse* outcome for a short period while the machine learns. Stay the course! Let the machine learn. If you apply an expectation of instant improvement to this experiment, you'll cut it off too soon. Ask your vendor partner how long before you can expect to see better results from its AI-driven technology.

A NEW WAY OF WORKING (AGILE)

This transition may be challenging. You were likely trained in a system that said it's about home runs, big ideas, and control: one winning Super Bowl commercial, one perfect proprietary software system. You have also learned from numerous sources—maybe even from direct experience—that failure, or even the *appearance* of failure, should be avoided at all costs. The good news is that digital marketing has created a pocket in which the new test-and-learn approach is acceptable. When it comes to AI and machine learning, however, a test-and-learn *culture* is now *essential*. In fact, perfectionism is a recipe for failure in the new world of modern marketing. To win, you have to not only take some calculated risks but also move fast.

Enter the Agile organization. The Agile method originated in software development, but the philosophy is increasingly being applied across disciplines to increase the velocity of improvements to marketing, product development, and more. In an Agile firm, the focus is on making small improvements relentlessly in “sprints” that last for weeks rather than months, the sum of which add up to massive growth. It's about working in small teams and using the principles of continuous design improvement and testing that are based on rapid feedback to achieve the best outcome for the consumer. In fact, one of the biggest differences between the traditional waterfall approach and the Agile approach is that the consumer's role is not just important to the initiative's success—it is *essential*.³

There are a few resources you can read on the Agile method applied beyond software development that should give you a good jump start. One is *Agile for Everybody* by Matt LeMay. Another is an older (but still very useful) book titled *The Goal* by Eliyahu M. Goldratt. There's also a more recent graphic novel version of *The Goal*, published in 2017. What's nice about *The Goal* is that it is anecdotal, which makes new concepts somewhat easier to wrap your head around.⁴ And Jim has written a very helpful article on this topic, “Use an Agile Approach to Supercharge Your Marketing Process,” published on Google's blog *Think with Google*.⁵

DESIGN CAMPAIGNS AND DEVELOP THIRD-PARTY ALGORITHMS

Your vendor partners and suppliers are specialists who can help you and your team determine how their technology can move the needle with consumers and better understand the potential for how AI and machine learning can supercharge your customer relationship moments. Challenge your internal staff to work with these specialists to apply their algorithms to your clean data, thus experimenting with AI and machine learning for one customer relationship moment (acquisition, retention, growth, or advocacy) across as many channels as possible—emails, landing pages, banner ad copy—anywhere you’re making a prediction. Then track your results against the human-led way.

Remember that at this point you haven’t yet asked for any significant additional budget or head count; for the most part, you’re just taking your existing budget and using it to run AI and machine-learning experiments with outcomes that allow you to compare the old and new ways. Look for bright spots. Where did you get lift? What has improved? Then ask, “Why was this successful? How can we scale it?”

Caveat: Whether things have worked is not a straightforward determination. When you conduct experiments, you need to decide what you’re measuring: target return on investment (ROI), customer lifetime value, brand equity, and so on. The measurable is what will determine your inference about whether an experiment has worked.

At a very basic level, the first thing you need to understand is whether your vendor can in fact provide personalization! You’ll want to see proof that its AI capabilities can indeed deliver individualized messages and product offerings to consumers for whom you have data. Once personalization has been achieved, then look to see whether it has had an effect on customer engagement. For example, you could consider the rate at which cross-sell offers have been successful from a personalized email campaign that has populated products to cross-sell from a recommendation algorithm.

Once you achieve success with a campaign, repeat it and see if you can achieve consistent gains. Be sure to measure the delta between what you have been doing and the AI-and machine-led results. Think of it as an A/B test, or a challenger versus champion approach. Track the performance of

these campaigns closely, because you'll be using these outcomes to make a case to management for the capital and operating budget that you'll need to energize the next layer of activities in step 3. Following are some quick examples of how brands have approached step 2.

STEP 2 EXAMPLES

- The **NBA** has partnered with a third-party provider to scale fan *advocacy* with an AI-driven video generator that captures exciting moments from games and interviews, allowing teams to quickly localize and personalize content shared with fans. AI relieves staff from watching thousands of hours of footage and speeds up time to publish, ensuring that fans can fully participate in cultural moments.⁶

- **Red Hat** is a provider of enterprise open-source solutions that uses third-party AI search from Lucidworks to supercharge *retention* by continuously optimizing the support content on its website so its customers can find the most relevant answers to their questions quickly and thus be more likely to renew their subscriptions.⁷

- **LATAM Airlines** is actively enhancing its marketing campaigns by transitioning from traditional A/B testing and propensity models to advanced hyperpersonalization strategies. Recognizing the necessity for efficient data and marketing action management, it has partnered with the AI experimentation platform OfferFit (part of the marketing services company Braze) to scale personalized messaging.⁸ This collaboration aims to leverage AI-driven decision making, ensuring that the company delivers the right product, message, and offer to the right customer at the optimal time, thereby strengthening client relationships and maintaining competitiveness in the market.

- **U.S. Bank**, aiming to transition from a regional to a national financial leader, adopted an AI-driven marketing strategy to accelerate its brand repositioning. Recognizing the limitations of traditional, human-centric marketing, Michael Lacorazza, chief marketing officer, partnered with the company Supernatural AI to implement an “algorithmic” approach, combining human insight with machine precision.⁹ This involved creating detailed synthetic user personas, trained on extensive third-party data, to understand and predict customer behavior. By leveraging these AI-generated personas, the bank optimized messaging, tested strategies, and refined creative in real time, effectively simulating hyperintelligent focus groups.

The results of this AI-powered strategy were significant, demonstrating a 3.8x return on ad spend, doubling brand recall, and increasing customer engagement across digital platforms. Campaign execution times were halved, from six months to three, enabling U.S. Bank to launch its new brand positioning with unprecedented speed and precision.

Now, let's take a deeper look at what JPMorgan Chase did for step 2 so you can get an even better sense of what this step looks like in practice.

STEP 2 IN PRACTICE: JPMORGAN CHASE

For many years a consumer's main experience with the JPMorgan Chase financial services brand was a one-to-one transaction with a bank teller through a drive-through window or at the counter inside the bank—often after a few minutes of waiting in line. Depending on the kind of account they maintained, the consumer might be referred to a bank executive to talk about additional products. The point is that the quality of the brand experience hinged primarily on the skillfulness of those individual human touchpoints.

Today, however, most people conduct their banking primarily online, so the JPMorgan Chase brand experience now occurs largely through the ads that consumers see. It spends a significant amount of money on digital advertising—\$5 billion annually¹⁰—certainly a big factor in its success. To see whether AI could improve engagement with its ads, in 2016 Chase began a step 2 pilot program, partnering with the generative AI marketing technology company Persado and beginning with its cards and mortgage businesses.¹¹

“Machine learning is the path to more humanity in marketing,” said Kristin Lemkau, then chief marketing officer of JPMorgan Chase, now chief executive officer at J.P. Morgan Wealth Management, in a press release.¹² She also said that the technology “rewrote copy and headlines that a marketer, using subjective judgment and their experience, likely wouldn’t have. And they worked.” Chase has stated that ads created by Persado’s machine learning performed better than ads written by humans, with a higher percentage of consumers clicking on them—more than twice as many, in some cases. The difference can be as simple as what word choice resonates with consumers. Persado technology generates creative content using data science and AI to render copy proven to be the most compelling message to individual customers and segments of customers.¹³ The tech world is mesmerized with media and media placement: Where does this ad appear? That is important, but if the messaging isn’t optimal, the ad will not be as effective, and money and opportunities to endear consumers to the brand will be wasted.

Persado’s “message machine” offered Chase an advanced marketing language knowledge base of more than one million tagged and scored words and phrases.¹⁴ The machine generates display ads, and over time it

learns what is most effective—what type of language and what sentiment works in each situation. That information can then be shared with internal and agency creative teams and added to creative briefs. Chase has used the Persado message machine to redraft marketing messages for its card and mortgage businesses. It has also extended the application of Persado’s technology to generate copy for direct-response marketing campaigns across its personal banking, home lending, and wealth management segments, and for ideation of digital advertising, such as display ads and Facebook ads.¹⁵ It hopes to use the technology in its internal communications and customer-service prompts.¹⁶

Van Diamandakis—former Persado chief marketing officer in residence, now chief marketing officer and advisor for technology consultancy Firebrick—put it this way: “A great way for brands to successfully apply artificial intelligence and machine learning to their business is to get started with one use case and work with a specialized AI technology vendor with proven success.”¹⁷ In this case, Chase started with a well-defined trial in 2016 and expanded the Persado relationship enterprise-wide, powered by the consistent delivery of business results. [Figure 15](#) shows our take on how JPMorgan Chase could leverage the principles of step 2 (experimentation) in its marketing.

Since this step 2 project with Persado, Chase has continued moving up the steps of the AI Marketing Canvas. Recently Chase has introduced generative AI agents in its call center and a tool called LLM Suite for two hundred thousand beta users in its offices. Teresa Heitsenrether, Chase’s chief data and analytics officer, said about the company’s call center agents, “They’ve been using AI for a while to help answer customers’ questions. But when you couple what we already used with the new large language models, they’re great. Think about a consumer calling. It might be about your car loan, your mortgage, your deposit account, your credit card. The person on the other end of the phone has to be able to traverse all those different products. The models let the call center agent find information and answer questions faster and more accurately.”¹⁸ We’ll talk more about step 3 initiatives like this one in the next chapter.

		AI ACQUISITION	AI RETENTION	AI GROWTH	AI ADVOCACY
STEP 2 EXPERIMENTATION 	<i>Uses AI-powered tools from third parties and vendors to get some quick learnings/wins and outcomes for a few marketing activities.</i>	Personalized direct mail ads.			
	Q. What are the personalization value pockets?	Machine-generated personalized copy for digital ads and direct mail			
	Q. Which customer relationship moments should I focus on first?	Focus first on customer acquisition			
	Q. Where is the data?	Consumer search data, browsing history, prior search and display click-through			

FIGURE 15. AI Marketing Canvas: JPMorgan Chase

STEP 2: KEY TAKEAWAY

Your job in step 2 is to take your clean consumer data and engage specialists to come in and apply their AI and machine-learning technology to that data for one or two targeted value pockets in at least one customer relationship moment. Using this third-party AI and machine-learning technology to gain broader insights about consumers and their preferences will increase your ability to personalize your offerings and communicate effectively with them at every moment.

Now that you have some new-way-versus-old-way results that show how AI and machine learning can not only create more value for your consumer in at least one customer relationship moment but also lift your brand, you are ready to move on to the next step.

STEP 2: CHECKLIST

- ☐ Select a limited number of customer relationship moments that you want to try to improve—perhaps just one moment on one product in one campaign.
- ☐ Identify a partner or vendor who has already built AI-based systems to do this task. It could be a current vendor or a new one you select.

- ☐ Shift some budget from doing things the way you've always been doing them (human-led) and funnel it into testing this new machine-led approach.
- ☐ Be patient, and run a few cycles or tries at whatever you choose to do to determine if you can get lift.
- ☐ Create a way to track performance so you can communicate the value of AI and machine learning for marketing to management.

STEP 2: SUMMARY

- Step 2 of the AI Marketing Canvas is experimentation. What marketing activities could be empowered with AI? Use AI-powered tools from third parties and vendors to get some quick learnings and outcomes in a few marketing activities.
- Start small, and focus on those quick learnings.
- Look for bright spots, then try to replicate them.
- This is a new way of working that requires different skills, so be prepared to manage that change.
- The steps are not a report card; they are part of a game board canvas intended to help you make the most of the resources you have.

In the next chapter, we'll be looking at ways you can take your step 2 wins and expand them to additional customer moments, or go deeper on the one you're already working on, starting to lead these projects in-house with step 3.

10

Step 3: Expansion

“With AI and machine learning, it’s all about continuously finding the edge that exists between humans—marketers and consumers—and machines. That edge is constantly moving as AI ecosystems automate more and more capabilities that were once considered uniquely human.

Once you have proof of concept that AI-powered marketing can really have a significant positive impact on your business, the next step is to make a big bet to fully transform your marketing.”

—Ed Breault, chief marketing officer, Malbek¹

In step 3, you’ll lean on your experience using AI and machine learning to create value for consumers and insights for your team in at least one customer relationship moment as you begin to scale up your activities and transition from being partner-dependent to leading these AI initiatives in-house. Your primary mission in step 3 is to expand the application of the machine learning you piloted and proved in step 2, going either more deeply into the same customer relationship moment or extending it to an adjacent moment, when data-driven predictions and personalization would add value for consumers.

There are a few helpful questions to ask:

- What other marketing processes can you start to automate?
- Can you expand it across products, divisions, regions, campaigns, and so on?
- How can you start taking a front-seat or leadership role in these projects?

Exactly how you approach step 3 will depend on the size and structure of your firm and your role’s span of control. In case you’re wondering, yes, you can be in step 3 in one moment and in step 1 or 2 in another. There’s also no need to go all the way up one channel (i.e., steps 1 through 5 in the acquisition moment) before you move on to applying AI and machine learning to the other customer moments.

Remember, it’s a game board on which the objective is to advance each customer relationship moment as far and as quickly as time and resources permit. By step 3, you not only have a bunch of AI and machine-learning plates spinning but also are in the process of cultivating key relationships

inside and outside the organization. [Figure 16](#) provides a look at step 3 of the AI Marketing Canvas. Let’s unpack it.

APPOINT AN AI MARKETING CHAMPION

As you start transitioning from step 2 to step 3, you really need to appoint what we call an AI marketing champion. The AI marketing champion will oversee all of your AI and machine-learning marketing initiatives and function as a translator between marketing and data science. This “marketing technologist” will not just understand data and marketing and be excited about the possibilities that AI and machine learning can create; they’ll also have some technology in their background, including some Agile-based software project-management experience. In this role, the person will act as an advocate for all of your AI and machine-learning marketing efforts, and they will work with internal staff to reinforce how important these initiatives are to you and the firm. They will identify resources, cultivate vendor relationships, and look for value pockets. They also will help you create a business case that will allow you to promote your activities across silos and eventually go to management to secure additional resources (CapEx and OpEx). On the technology side, the AI marketing champion will manage the Agile process and the implementation of algorithms. And when the time comes, they will be the one to help you explore the pros and cons of leveraging internal resources to create models you can use to make in-house investments as opposed to engaging an outside strategic partner.

		AI ACQUISITION	AI RETENTION	AI GROWTH	AI ADVOCACY
STEP 3 EXPANSION 	<i>Uses AI across a broader set of marketing activities. AI 'Marketing Champion' named. Beginning to in-source development and capabilities.</i>				
	Q. Do I go deeper into this customer relationship moment or move to the next?				
	Q. Who is my internal core competency team across functions?				

FIGURE 16. AI Marketing Canvas, step 3: Expansion

While the champion leads, coordinates, and drives things forward, it’s everyone’s responsibility to get on board, and it’s yours to lead the charge

by developing a strong AI marketing team.

We can't stress enough the importance of having an AI marketing champion. Every marketing team we spoke with that has achieved significant success with AI has someone on their team in this role. Do you?

DEVELOP AN AI MARKETING TEAM

You've been encouraging staff to conceive of and participate in running one-off experiments on one customer relationship moment with the help of third-party vendors, and that's great. To become an AI-powered marketing team, however, you'll need to expand those one-off experiments into team initiatives in which one-off experiments become multiple experiments. The new-way-versus-old-way outcomes are tracked, and the results are recorded on a dashboard that everyone can see.

Through this process, you will begin to move your AI and machine-learning marketing efforts from the periphery of your marketing strategy to the center. What's happening with everyone's experiments will become a standing item on your monthly meeting agenda. In addition, processes for onboarding new vendors will now be standardized, and workflows will be established. The goal is to embed the use of AI in marketing into the fabric of your department while you work on getting buy-in from key stakeholders across the firm.

All of this change—new, more collaborative ways of working, new skill sets, and yes, new leadership approaches—means that you likely will find yourself immersed in the management of a pretty significant cultural shift that will require people in your department to acquire the willingness and ability to do the following:

- Tolerate failure and learn to fail fast
- Collaborate and share best practices and learnings so everyone gets smarter together
- Accept that they now live in a world of continuous learning, which you will support by sending them to AI conferences (that you pay for), encouraging them to buy and read AI marketing books (that you pay for), and bringing in external speakers and experts to share their experiences with AI marketing (with lunch-and-learns that you pay for)

A detailed description of exactly how to manage the necessary organizational changes is beyond the scope of this book, but in [chapter 14](#) we will provide some guidance for how to think about it and what to look out for when you start the process. For now, just know that a significant

internal corporate culture component will need to be addressed, and it will affect your ability to move up through the AI Marketing Canvas effectively.

QUANTIFY IMPACT AND BUDGET REQUIREMENTS

Everyone's efforts at this step need to be focused on quantifying the marketing return on investment (ROI) of the new way versus the old way. These tangible, repeatable outcomes are the evidence you'll need to build a rock-solid business case for funding additional marketing initiatives driven by AI and machine learning. You need to assiduously create this body of proof because, at the end of the day, you are asking management to make a big bet about an approach they likely won't automatically understand. You'll also be starting the process of identifying places where it might make strategic sense to lessen your dependence on vendors and their models. To do so, you'll want to identify internal data science resources and engage them to design some machine-learning models and run some experiments in-house.

For areas where it makes sense to continue with a partner, you'll want to identify the best of the best, and let them do what they do best, so you can focus on making sure the customer is experiencing maximum value from your experiments. Consider direct-to-consumer success stories Dollar Shave Club (acquired by Unilever in 2016) and Harry's (filed in March 2024 to initial public offering, or IPO). The founders had the brand and the vision, but all of the logistics—from manufacturing to storefront to product delivery—are executed by vendor specialists that are coordinated by the brand.²

It's critically important to have actual results that show improvement via AI and machine learning over what you were doing before. By doing so, you can show that what you've been doing is not only already ROI-positive but also a potentially large strategic opportunity worth additional investment. The metric we recommend is marketing return on investment (MROI), defined as "the financial value attributable to a specific set of marketing initiatives (net of marketing spending), divided by the marketing 'invested' or risked for that set of initiatives."³

$$\text{MROI} = \frac{(\text{incremental financial value generated by marketing} - \text{cost of marketing})}{\text{cost of marketing}}$$

Use MROI to show the incremental financial value generated from your AI and machine-learning initiatives, and compare that to the MROI of your current best approach. The difference between the two will be the “net lift,” or incremental impact, of a machine-first way of doing things.

CALLOUT

Measuring the Impact of AI

We spoke with marketing expert Tim Bohling, founder and president of Bohling Consulting, who shared his experiences measuring the results of AI-powered marketing. Here is what he had to say.

The marketing world is undergoing a seismic transformation powered by generative AI. For those of us working at the intersection of strategy, creativity, and performance, we believe this is an evolution to embrace. At Bohling Consulting, a brand strategy and digital marketing agency, we’ve been early adopters of generative AI, and what we’ve learned is both exciting and optimistic: AI is here to help elevate what we do.

Every day, our team uses generative AI to enhance campaign development, management, optimization, and performance evaluation. What once took hours of brainstorming, drafting, and testing can now be accelerated with AI-driven suggestions and content creation. Whether it’s building targeted personas, generating ad copy (headlines, descriptions, keywords, and value propositions), or crafting visuals and videos, AI acts as a tireless creative partner—speeding up our workflows without sacrificing the strategic intent.

To test how effective generative AI could be in practice, we implemented a robust testing matrix that assessed the ad copy and audience targeting with and without the assistance of AI. The results were clear: ad copy developed with AI showed a 15.3 percent increase in engagement and a 10.6 percent improvement in efficiency versus ad copy developed without AI. While the human touch is still essential in shaping final content, AI gives us a creative starting point that allows our team to spend more time refining, innovating, and optimizing.

One of our clients, a global leader in environmental solutions, provides a compelling example. Historically, the digital advertising for this client has consistently exceeded industry performance benchmarks on LinkedIn. And after incorporating generative AI into our campaign workflow, the digital advertising performance realized a 30.9 percent increase in click-through rate (CTR) and a 17.1 percent decrease in cost per click (CPC). That’s not just better performance; it’s demonstrable progress powered by a smarter approach.

The trend was reinforced with a global higher education brand we support. Its LinkedIn advertising campaigns already performed above average, but post-AI integration the campaigns experienced a 6.8 percent boost in CTR and a 10.2 percent reduction in CPC. This was the result of pairing data-driven insights with creative-generation tools that learn and adapt.

Even for more localized campaigns, the results have been encouraging. A regional tire and auto repair firm with twelve locations across multiple states integrated generative AI into its Facebook and Instagram campaigns. The outcomes were consistent: a 5 percent rise in CTR and a 4.7 percent decrease in CPC. The takeaway? Generative AI works not just for global giants but also for regional businesses seeking growth and efficiency.

However, it’s not all upward trends—yet. When it comes to audience targeting specifically, we have not seen the incrementality. This reminds us that generative AI is still evolving, and human oversight and strategy remain essential. But the net effect is overwhelmingly positive. AI is proving to be a creative accelerant and a performance enhancer—giving marketers more

time to focus on understanding audiences, shaping messages that resonate, and building brands that endure.

Looking ahead, we believe the potential is vast. As AI continues to improve in understanding contextual nuance, consumer behavior, and media ecosystems, we anticipate even greater breakthroughs in precision targeting and deeper personalization at scale. Generative AI is already transforming how we work. Soon, it will further transform how we deliver the right message, at the right time, on the right device, to the right target audience.

For agencies like Bohling Consulting, AI has become an everyday part of how we think, create, and deliver. And for the industry at large, it's a hopeful signal that technology and humanity are working in tandem to tell better stories and drive better outcomes. This is the future of marketing—and it's already under way.

INTERNAL AI AND MACHINE-LEARNING ACTIVITIES

As your AI efforts expand and become increasingly impactful, you do not want to be tethered forever to third-party vendors. This is why here, in step 3, you are looking for ways to do some things in-house by tapping into existing data science capabilities within the firm. The goal here is to expand your internal abilities to use and gain insights from data beyond the black-box functionality your current vendors' AI tools provide.

A good place to start building your in-house competency is by taking advantage of the emerging trend of data science as a service (DSaaS). Instead of relying solely on third-party vendors or hiring data scientists to build your own models from scratch, there are a number of available solutions that allow you to plug in your existing data and apply an off-the-shelf, ready-to-use AI model instantly. Basic DSaaS tools are baked into Google Sheets and Excel, allowing marketers to make predictions and run what-if scenarios in-house quickly and easily. All it takes to get started with these solutions is your data and a little time from your marketing analyst. If, however, you have internal access to data scientists, you can go one step further and have them assemble your own models and applications using machine-learning libraries.

For example, Google has a number of off-the-shelf, AI-driven solutions in the form of machine-learning libraries. They're akin to website code libraries or plug-ins. If you needed a countdown timer for your website, you wouldn't build it from scratch; you would download a plug-in to your website theme, customize it, and switch it on. This is the same idea. Machine-learning libraries can be customized to assist with things such as visual classification, search (TensorFlow), and product recommendations (Amazon Personalize).⁴ Similarly, you can get word sourcing from IBM

Watson because it ingests all of every page on the web, as well as all of Wikipedia, and thus has that corpus inside of it to learn from. This means you can just select the piece you need and then adapt or augment it for your needs. “You” means some developers and data scientists who know how to pull in and configure these solutions.

As part of this process, you want to be looking for ways to use AI and machine learning to further supercharge an existing customer relationship moment and/or begin to apply it to an adjacent moment. Following are a couple of examples of what each looks like.

Supercharge Existing Moments: Warby Parker

Warby Parker began life as a website offering a more cost-effective alternative to traditional eyewear retailers, initially shipping to customers five pairs of frames to try on in the comfort of their own homes. It likely is using machine learning to encourage engagement and send personalized messages to customers who browse the site but leave without purchasing.⁵ Warby Parker also has gone deeper with its Virtual Try-On app. Those who have a smartphone now have the option to try on virtual frames using Warby Parker’s augmented reality app. This app overlays a computer-generated image of the frame onto an image of your face. Your phone’s facial-recognition technology creates a map of your face, allows the tool to recommend frames it thinks will look best, and provides you with a 3D preview (acquisition).

In terms of retention, Warby Parker is also using machine learning to crunch customer data to determine where best to locate new retail stores.⁶ And, according to its 2018 sustainability report, “a state-of-the-art machine learning system automatically figures out the topic of incoming support emails, and routes them to the appropriate [customer experience] specialist,” allowing the company to answer customer support emails 60 percent faster than the previous manual system.⁷

Extend AI and Machine Learning to Adjacent Moments: Walmart

When a customer opens the Walmart app, it displays a page that is personalized with items they have previously purchased (retention). For customers who have previously ordered, Walmart can predict when they're next likely to visit a store (retention). For special occasions, customers can search for help hosting, for example, "a football watch party," and the Walmart app can generate a complete list of products needed to meet those needs (acquisition).⁸

If your goal is to achieve quick learnings, you'll want to go with the approach that is easier to implement—deeper into an existing moment or extending to adjacent moments.

IDENTIFY AND DEVELOP AN AI MOMENTS CROSS-FUNCTIONAL TEAM

Next, you'll want to begin developing a cross-functional team composed of C-level roles from finance, product development, and operations. This is especially important when you are moving to an adjacent moment because often the locus of control of other moments is shared. A good book on this topic is *Reorganize for Resilience* by Ranjay Gulati.⁹

The first step is to figure out who your C-level allies are. If you're going to be able to expand beyond your internal team, cross-functional leadership has to buy in. Do your homework, and be specific. For example, identify in-house capabilities: "Who do I have in the building who can do advanced data work?" Or, "I need 1.5 analysts to help my department do x, and here's why."

DESIGN INITIATIVES AND ALGORITHMS (TEST AND LEARN)

Once you have your cross-functional team in place, it's time to get to work and start applying AI in-house to a specific marketing initiative. But which initiative? That's a discussion to have with your team, working in close partnership with your company's data science leader. Together, here's what you'll do:

- Identify a value pocket (as we discussed in [chapter 9](#)) around which to design an experimental AI initiative

- Figure out what you are trying to predict or generate (remember, these are the two basic tasks AI can do!), and work with your data science folks to come up with some first-party data and in-house algorithms that can do it
- Create and run an AI-powered experiment to explore the value pocket
- Evaluate the results, and optimize your approach for a subsequent experiment

If your AI-powered campaign experiment works, great! Now work with your team to scale that experiment. If the experiment fails, remember that it's OK. Failure is part of the process. Don't dwell on it. Since you have already done the work to ensure that the consumer data you are using is clean (at least we hope so!), you may have to tinker with the model. Simply find another value pocket, devise a new experiment, and rerun the process.

Another possible scenario is that your experiment will answer one question and pose another, and that's a good thing. Why? Because a big part of this process is knowing the right questions to ask. We'll see how that happens in the story of [Compare.com](#), a brand that has successfully taken this approach to building its in-house AI capabilities (step 3 of the AI Marketing Canvas).

IDENTIFY, DESIGN, TEST, AND LEARN IN ACTION: [COMPARE.COM](#)

[Compare.com](#) (hereafter Compare) is an aggregator of automotive insurance that allows customers to generate real-time quotes from affiliated insurance providers. It is owned by the Admiral Group (hereafter Admiral), one of Britain's largest insurance companies, established in 1993.¹⁰ In addition to its low-cost online auto and home insurance offerings in Europe, Admiral also owns several auto insurance price-comparison sites in the United Kingdom and Spain. The company entered the US market in 2009, with Richmond, Virginia-based Elephant Insurance, which followed Admiral's successful direct-to-consumer business model by serving customers via the phone and internet. After much analysis, Admiral decided that the US market was ready for its own insurance price-comparison website (modeled after its already successful UK-based site [Confused.com](#)) and launched [Compare.com](#) (then called [comparenow.com](#)) in 2013.

Admiral's goal, through Compare, was to make finding the best car insurance price "a much easier, much quicker process" for US drivers, at a time when doing so was inefficient and messy, despite the legal mandate for nearly all US drivers to have insurance (depending on their state's policy).

Initially, Compare faced a chicken-or-egg situation when it came to getting insurance carriers to join the site, but the company pressed on with its marketing and advertising strategies. It turned the corner in 2015 with a partnership allowing Google access to Compare's forty-one different insurance partners for its own comparison platform, Google Compare.

Compare's value proposition is in providing real quotes from insurance providers, so the more carriers it has on its platform, the more value it can provide to its customers. Conversely, the more customers Compare can say have used its platform to purchase insurance products, the more easily it can bring additional carriers on board. In this way, Compare is providing a technology platform consumers can use to purchase products from an insurance carrier, and it is presumably collecting a fee from the carrier for facilitating the transaction.

Compare worked with three main channels to acquire customers: TV advertising, Google Ads (pay per click, or PPC), and advertising on broker websites, where some basic information was collected from the consumer before they were passed on to Compare.com. Though the leads received from the broker channel were the most cost-effective, they also presented the lowest completion percentage. Consumers had just answered basic personal information through the broker sites, and they likely didn't want to fill out another substantially longer questionnaire through Compare.com—even though the effort would lead to a list of actual bindable quotes tailored to their situation, which they could click to buy immediately from the insurer's site.

Compare's marketing team also performed before-and-after and A/B testing to optimize the language, cadence, and subject lines of its marketing emails in order to draw people to the site. In A/B testing, a control case is compared to one or more test cases to determine which version is preferred by consumers. The control case in these tests is usually referred to as the test condition, and for Compare's marketing group, it was the marketing email methodology that had been used prior to testing.

Like its parent company Admiral, Compare enjoys a very transparent company culture in which failure is acceptable. It is also known for its test-and-learn culture, which is deeply rooted in the Agile development process, and through which it conducts regular test sprints as it tweaks its site. Regardless of how the consumers arrived at the site, Compare's challenge was to figure out the best way to engage them, compel them to fill in the

entire form, and complete a purchase. The problem was that most visitors weren't doing those things. In fact, by early 2016, Compare had seen completion rates decrease from a high of 18 percent in January to just 12 percent in March—a 33 percent decline in three months. This was a critical firm-level strategic challenge. [Compare.com](#) is only paid when customers accept a quote provided by the insurance partners on the platform, and the questionnaire is the vehicle by which the required information is collected from the prospective customer.¹¹ So, in this example, the designated value pocket was to increase the number of website visitors who completed the online questionnaire required to generate a bindable quote.

To address this problem, Compare began looking for answers to two main questions: Does showing predicted rates earlier increase completion rates, as compared to the standard questionnaire process that withholds quotes until the end? And if the answer is yes, which customer groups responded best to those estimates, and where should estimates occur in the questionnaire process? [Compare.com](#) engaged an intern who developed a basic algorithm that would predict potential customer savings on auto insurance and provide estimates earlier in the questionnaire completion process.

Here are some considerations:

- How and where should an estimate option be presented, and to whom (i.e., who would be in the test groups rather than the control groups)?
- What information should be provided to those test customers?
- How many questions are sufficient to provide a reliable estimate, and what is the minimum amount of information needed to provide an early estimate?
- Should the accuracy of the predicted quote change as more questions are filled out, or is a single estimate sufficient?
- What text or copy will draw customers to the predicted quote?

In other words, Compare figured out what it was trying to predict and worked with a data science intern to come up with some algorithms.

The next step for Compare was to create and run an AI and machine-learning experiment to explore the value pocket. The first test around quote estimates helped [Compare.com](#) conclude that quote estimates using a state's lowest monthly rates had the biggest impact on completion rates. This led Compare back for a second experiment, which examined a new problem: How would customers react to a pick-your-path option? In this alternative, consumers had the option to defect from the full questionnaire and fill out a shorter questionnaire (seven questions) that would give them a customized

quick quote. Analysis of this experiment revealed that the quick-quote option further improved completion rates for the site.¹²

Note the feedback loop between creating the experiment and evaluating the results. The first experiment revealed a second important opportunity to exploit Compare's selected value pocket.

Following are examples of some additional brands using step 3 of the AI Marketing Canvas in their marketing campaigns.

STEP 3 EXAMPLES

■ The beauty and well-being group of **Unilever** has piloted creating “digital twins” of its product and packaging to drastically reduce cost (55 percent) and increase speed to market (65 percent) of producing product imagery. Using the NVIDIA Omniverse development platform, Unilever is able to maintain 100 percent brand consistency by maintaining a single digital instance of a product's data across regions while doubling click-through rate and increasing intent to purchase by 5 percent. Esi Eggleston Bracey, Unilever's chief growth and marketing officer, said, “This isn't about pushing out more content. . . . It's about starting with a deep understanding of people's needs and desires . . . backed by a high-quality content-creation machine to deliver desire at scale. Our product twins can be deployed everywhere and anywhere, accurately and consistently, so content is generated faster and on brand.”¹³

■ **Thread** uses AI to personalize wardrobes for people. Each personalized shopping specialist (a single human) serves up to fifty thousand customers. You tell the shopper you need an olive-green jacket that will look good on you. Thread has developed an algorithm that collects information from all the different websites and partnerships the company has built, then distills that data down to two or three options, which the shopper passes on to the customer. With AI, Thread can scale very few shopping specialists to be able to serve tens of thousands of people, and still deliver one-to-one personalized service (retention and growth).¹⁴

■ **Calm** is a sleep, meditation, and relaxation app offering three- to thirty-minute sessions that help users become mindful, offered in a freemium model. Having accumulated hundreds of hours of content, Calm partnered with Amazon Personalize to recommend content in real time by using machine learning. With the goal of reducing browse time, which could cause users to disengage and close the app, Calm began by experimenting with its Sleep Stories series, where users often developed specific preferences (for example, tone of voice or type of content). Calm's user, meta, and interaction data was ingested by Amazon's Data Lakes to learn logical progressions in meditation practices and capture quick shifts in user preferences when new popular content was published. Personalized, recommended content increased “daily mindfulness practice” among Calm's user base by 3.4 percent (retention and growth).¹⁵

■ **Zola**, a wedding-planning website, created AI tools to address two powerful insights: most wedding planning is done by one person, and thank-you notes are a tedious exercise. As couples register with Zola's platform, they're encouraged to launch a customized OpenAI GPT to answer questions about their project-management style and personality. The chatbot assigns planning tasks accordingly and returns couples back to Zola for further assistance. The couple completes their to-do list and hosts a wonderful wedding. After the big day, Zola uses the couple's wedding registry information to tailor thoughtful, individualized notes to each gift giver. The immensely relieved newlyweds sing praises about Zola's personalized thank-you note tool to friends planning their

weddings. Zola uses a combination of third-party tools and user-generated content to deliver a highly customized user experience. Shan-Lyn Ma, Zola's chief executive officer, said about the company's AI outlook, "Every team within the company right now is using at least one AI-powered tool, and we have one hundred ideas in the pipeline for other things we can do."¹⁶

To better understand all that can be accomplished in step 3 of the AI Marketing Canvas, let's look at one facet of an iconic brand for which artificial intelligence is truly at the foundation of everything it does: Coca-Cola.

STEP 3 IN PRACTICE: COCA-COLA

For Coca-Cola, an early adopter of AI tools, one their first steps toward using AI across a broader set of marketing activities was a big investment in a drink dispenser, Coca-Cola Freestyle, which allows consumers to mix their own drinks (retention). Through descriptive analytics harvested from the machine, Coca-Cola was able to identify the mix of Sprite and cherry flavoring as one of the most popular combinations. This data led to the development of Sprite Cherry—a quick win in product development (growth). Coca-Cola also uses this data to allow its customers (e.g., Five Guys and Wendy's) to right-size its inventory in different places. Since the drink dispensers give them real-time data on usage, they can use machine learning to ensure that stockout is minimized.

The first generation of Freestyle machines collected first-party data that revolved around the product, and that is still true, according to Thomas Stubbs, former vice president of engineering at Coca-Cola Freestyle. "The company has billions of rows of data from our dispensers, which allow us to identify consumer trends and interests, and how tastes are developed, regionally, in supermarkets and other outlets," he said. "We gain enormous insights from the dispensers, and we use that mass of data in a variety of ways. Everything about the machine—whether data on the pour that just happened, or ongoing operations, or the ability of the consumer to build custom mixes or drinks—is controllable via application protocol interface. This gives us an enormous runway for innovation and personalization based on consumer preferences and tastes."¹⁷

Coca-Cola sells through other channels, such as retail stores and online, but what Freestyle makes it really good at is *listening*. "Freestyle is a huge source of real-time data directly from a consumer touchpoint, which allows for 'mass personalization'—in this case, a new product, Sprite Cherry," said

Stubbs. “The data revealed the trends, and we could then make business decisions based on that information.”

To increase its ability to connect directly with the consumer mixing the drink, Coca-Cola also integrated the Freestyle experience into mobile apps, which connect via Bluetooth to an even more sophisticated dispenser: the Coca-Cola Freestyle 9100. The mobile app collects limited consumer information and allows consumers to earn rewards, scan codes from bottle tops and other merchandise, and engage in location-specific experiences. In terms of the new Freestyle 9100 dispenser, the app also allows you to tee up not only *your* custom drink mix but also a mix for a friend—before you get near the machine. Once at the venue, you can connect to the fountain, and the drink will be dispensed. Now app users provide Coca-Cola not only with mix preferences but also with information it can use to further personalize the Coca-Cola experience for them. [Figure 17](#) shows our take on how Coca-Cola could leverage the principles of step 3 (expansion) in its marketing.

A more recent investment by Coca-Cola was the launch of the generative AI campaign “Create Real Magic,” which leveraged OpenAI, Microsoft Azure, and Mimic to create a digital twin of the iconic 1931 Santa Claus. Customers got the opportunity to ask Santa questions in twenty-six different languages and receive a digital snow globe customized to their conversation. Pratik Thakar, head of generative AI for Coca-Cola, said, “That kind of stuff, which only GenAI can do, is very true to the Cola-Cola brand. We feel that’s where the technology does justice to our ambition. . . . Some consumers loved it; a lot of people didn’t like it. . . . That’s OK. We need to respect everyone’s point of view. Not everyone will agree with everything we do; that’s nature.”¹⁸

Coca-Cola, like many brands featured in this book, has advanced its implementation of AI over multiple steps via different initiatives. So, while this example of how Coca-Cola is using AI fits into step 3, it has extended its learning from Freestyle to allow sports team trainers at Louisiana State University to create one-to-one personalized drinks for athletes via its Powerade Command Center (growth), an initiative residing at step 5 (monetization). You’ll learn more about that in [chapter 12](#).

		AI ACQUISITION	AI RETENTION	AI GROWTH	AI ADVOCACY
STEP 3 EXPANSION 	<i>Uses AI across a broader set of marketing activities. AI 'Marketing Champion' named. Beginning to in-source development and capabilities.</i>		Smart Drink Dispenser "bot"	Mobile App: Sprite [®] Cherry (new product)	
	Q. Do I go deeper into this customer relationship moment or branch over?		Continue to deploy dormant features on the Freestyle 1100 to delight and surprise consumers (Deeper).	Develop a mobile app, and products that expand the customer relationship to more consumption and variety of products (Branch Over)	
	Q. Who is my internal core competency team across functions?		We would need to collaborate with product development and operations teams	We would need to collaborate with product and app development teams and operations	

FIGURE 17. AI Marketing Canvas: Coca-Cola

STEP 3: KEY TAKEAWAY

At some point you will emerge from this experimental, tactical trial period of AI and machine learning. You will have become adept at using the existing technology to personalize the consumer's experience and create value for them, and you'll deeply understand the impact that AI and machine learning have on your customer relationship moments.

You may also have maxed out the existing capabilities of some of your third-party AI providers. Your needs will have become so specific that your vendor will have to start writing custom code to meet them. When you reach this milestone, it will likely make sense to begin to bring those capabilities in-house, engage with a strategic partner, or acquire a company that can do it for you. The proprietary models you build in the future will create a strategic advantage.

STEP 3: CHECKLIST

- ☐ Decide whether to go deeper on one customer relationship moment or on an adjacent moment, on the basis of the richness of the value pocket and what consumers would find valuable.

- Compile a summary of the results, and the financial impact of the results, up to this point in preparation for step 4 activities.
- Identify and appoint an AI marketing champion, and develop an AI marketing team.
- Draft a strategy, and quantify impact and budget requirements.
- Begin building internal competency in AI and machine learning by investing in training.
- Start developing a cross-functional team composed of C-level roles from finance, product development, and operations.
- Test, learn, and adjust your models and approach on the basis of what the data is telling you.

STEP 3: SUMMARY

- Step 3 of the AI Marketing Canvas is expansion. Use AI across a broader set of marketing activities, beginning with in-house development and capabilities.
- Lean on your experience using AI and machine learning to create value for consumers and insights for your team for at least one customer relationship moment as you begin to scale up your activities.
- The primary mission in step 3 is to expand the application of the machine learning you piloted and proved in step 2, either more deeply into the same customer relationship moment (or stimulus) or into an adjacent moment when data-driven predictions and personalization will add value for consumers.
- How you approach step 3 will depend on the size and structure of your firm and your role's span of control.
- Identify and appoint an AI marketing champion and an AI marketing team; quantify impact and budget requirements; continue internal AI and machine-learning activities; identify and develop an AI and machine-learning cross-functional team; and identify, design, test, and learn from campaigns and algorithms.
- When you start maxing out the existing capabilities of third-party AI providers, it's time to create a plan to bring it in-house, with or without a strategic partner, or buy a company to help.

With step 3 competencies securely under your control and working, it's time to scale things up. In the next chapter, we'll take you through the key strategic decisions the firm must make and the actions you must take to chart the next phase of your efforts to further supercharge customer relationship moments with AI and machine learning in your marketing.

11

Step 4: Transformation

“People tend to think more tactically than strategically. AI is a strategic function; you have to think one year ahead. I don’t think it’s possible now to do great marketing without AI.”

—Azadeh Moghtaderi, senior director of data science and machine learning, Meta¹

If step 3 is about seed planting and creating pilots, step 4 is about scale and execution. Step 4 is about using AI to automate across a complete set of marketing activities and beginning the process of identifying strategic capabilities and moving them in-house in a way that makes the most sense for your firm. Here you are really transforming your marketing operation to be fully “AI first.”

Your objective at this step is to become the best in class when it comes to using AI to automate all the moments in a customer relationship, so you will continue your efforts to expand in those areas as appropriate. That means you are deploying AI consistently, and both you and the machines (algorithms) are learning from the outcomes. You’re using all of this to increase the returns curve to produce more and more irrefutable evidence that AI and machine learning add value to the customer experience and provide lift for your brand. Most important, you are now playing the game of AI and machine learning for marketing for keeps, using every available resource, because in the end you know it will be winner take all. [Figure 18](#) shows how step 4 looks on our AI Marketing Canvas.

		AI ACQUISITION	AI RETENTION	AI GROWTH	AI ADVOCACY
STEP 4 TRANSFORMATION 	<i>Uses AI to automate compete sets of marketing activities across multiple customer relationship moments or deeply in one or two moments. Most capabilities in house or with partner whose advanced development product is under marketing's control.</i>				
	Q. Should I build in-house or buy a company with the capabilities?				
	Q. Where will I find the talent required?				
	Q. What AI practices set our marketing apart?				

FIGURE 18. AI Marketing Canvas, step 4: Transformation

Whether you're ready to progress to step 4 depends on the following questions:

- Do you have an adequate amount of reliable, clean data across all customer relationship moments? We can't overstate how critical this is. There's an old data-processing adage that applies here, which is, "Garbage in, garbage out."
- Does your marketing strategy call for AI and machine-learning algorithms that require customization beyond vendors' off-the-shelf products?
- Are there proprietary AI capabilities that, if developed, would set your marketing practice and business apart or eventually become a new source of revenue?

Why consider bringing AI and machine-learning capabilities fully under your control—that is, bringing them away from a third-party, in-the-box solution provider? Because at this stage, your large trove of data about the customer relationship now represents your strategic advantage. That means you need to own the processes and the resulting feedback loops around that data, 100 percent. You should now have some learnings and wins you can share and use to make a business case for the need to customize algorithms beyond what existing models can provide. If the answer is yes, the question becomes, "Do you build that model in-house, engage a strategic partner, or purchase a company (and its expertise) to do it?" Whatever you decide, the goal is the same: create excellence across the firm for AI and machine learning for marketing, with the objective of developing a competitive advantage.

In your quest to determine whether to buy or build expertise, you'll want to look at how much customization of algorithms is already happening and ask the following questions:

- As we expand to other moments, are our existing off-the-shelf algorithms up to the job?
- If customization is required, is it something that creates strategic advantage for the firm?
- If it does create strategic advantage, do we build those models in-house, purchase a company to build them for us, or do a combination thereof? (This is a strategic decision that needs to be addressed by the strategy committee and the board.)

EVALUATE BUY AND/OR BUILD OPTIONS

Determining which way to go is a matter of examining combinations of cost, timing, and degree of difficulty. In the imaginary example depicted in [figure 19](#), option 1 is to go in-house, which would take two years and cost \$1.5 million, with a 60 percent likelihood of success. According to your research, it looks as though option 2, purchasing a company to do the same thing, would cost twice as much but would be easier and faster, and would provide a higher likelihood of success. Option 3 is much more expensive and much harder. You get the idea.

	Cost \$	Difficulty ?!?	Time/ advantage 	Likelihood of success 
Option 1: Build in house and add staff	\$1.5MM	10/10	24 months	6/10
Option 2: Purchase company	\$3MM	6/10	3 months	8/10
Option 3: Purchase company and support with in-house data science	\$4.5MM	9/10	4 months	9/10

FIGURE 19. AI and machine learning: Build and/or buy

In addition to the variables of cost, degree of difficulty, timing, and success ratio, there is also the matter of which tack will best align with the culture of your firm. For instance, if your firm has an acquisition culture, management's decisions will likely lean that way. The question then becomes, "What companies are available that have the expertise you need

at a price your firm is willing to pay?” In addition, the history of successfully integrating incoming companies needs to be considered, which is another board-level question.

If data science skills and talent are already in-house, it may be possible to draw from those internal resources to create a cohort who can build the models you need. And if you can’t find a company that is doing what you are looking to do, you may *have* to build your own cohort.

To give you a clearer picture of what buy and/or build might look like, we’ve profiled four companies: two that have built models in-house, and two that have purchased companies with existing models and expertise.

STEP 4 EXAMPLES

Building Models In-House

■ **Disney** has developed many AI innovations in its own in-house research labs, Disney Research and Walt Disney Imagineering.² These labs pursue research areas including machine learning and data analytics, visual computing, robotics, and human-computer interaction. A renowned application of Disney’s machine-learning capabilities was the development of the now discontinued MagicBand: a theme-park-wide pass that tracked customers’ movements, analyzed purchasing habits, and reported the real-time data to Disney. The purpose of this innovation was to streamline the customer experience by helping Disney staff (known as “cast members”) anticipate customer behavior and make quick decisions around adding staff or incentivizing guests to head to another ride or attraction (retention and growth). As a result of this investment, the efficiency and capacity of the parks improved, operating margins increased, and traffic trends continued to be strong.³

More recently, the labs have been developing enhancements to human-computer interactions. As of 2024, Disney Research is building capability for the parks’ growing animatronic cast members to correctly pronounce guests’ names. For guests who can feel disconnected or disrespected by this task that AI voices often struggle with, the robot cast members can personalize to create immersive relationships across a growing portfolio of experiences (growth and advocacy).⁴ In an interview with tech journalist Cleo Abram, the chairman of Disney Experiences, Josh D’Amaro, said, “The purpose [for our AI tech] at the end of the day is to create a connection with our guests. To make them feel something.”⁵ The integration of animatronic cast members across Disney’s parks and cruise portfolio will inevitably increase operating margins, providing 24-hour support personalized to each guest’s known needs and preferences (retention and growth). Customer relationship moments impacted are advocacy, retention, and growth, in that they are leveraging data to build relationships and incentivize guests.

■ **LVMH** has created for its seventy-five portfolio brands (Maisons) a library of algorithms and 3D technologies that it calls its AI Factory and 3D Factory. The company—which owns some of the world’s most luxurious brands, such as Louis Vuitton, Christian Dior, and Moët & Chandon—partnered with Stanford’s Human-Centered Artificial Intelligence unit to create ethical AI tools that augment its luxury image. The AI Factory and 3D Factory are used by artisans to solve business problems to become more creative and improve craftsmanship. Hublot used Web3

technology in its 3D Factory to launch twelve limited-edition watches in collaboration with Takashi Murakami. The watches, which bridged Murakami's hypermodern neo-pop art style and Hublot's artisan history, were available to customers who claimed non-fungible tokens on Hublot's app.⁶ Hublot attracted attention from its luxury-oriented customers, as well as a new base of crypto enthusiasts who bought up the collection in under five minutes (acquisition/growth). Post-sale, Hublot's e-warranty app uses image recognition, microstructures in the watch, and blockchain transactions to prove ownership and verify authenticity of these collector pieces (retention).⁷ This campaign helped Hublot reinvent itself as a modern luxury brand while combating counterfeits, an ever-present threat to the luxury industry.

■ **CarMax**, as we described in [chapter 1](#), starts the majority of its relationships online (acquisition). However, almost all of its sales occur in the physical store (retention). When visiting [CarMax.com](#), you're shown some initial results, and then the text *and* images change on the basis of what the site learns about you from your search activity.⁸ This capability, a form of collaborative filtering, is particularly interesting because it involves the filtering of images, not just text. In fact, CarMax invested in a photo lab to take high-quality photos of cars, which enabled it to better train its image-recognition algorithm to present personalized photos of cars to customers.⁹ CarMax compiles a vast amount of data every year through the different areas of its operations;¹⁰ it sells more than seven hundred thousand cars per year as a company.¹¹

Proprietary algorithms drive CarMax's inventory management and pricing decisions, which allow it to adjust inventory to customer demands in real time in stores across the nation. According to a presentation at the 2019 Spark+ AI conference by Todd Dube, senior solution architect at CarMax responsible for data science and machine-learning platforms, "a key initiative for CarMax is enabling [its] data scientists and analysts to leverage machine learning and [its] massive volumes of sales, clickstream, and other data to drive an omnichannel experience with a goal of creating a personalized customer experience online and anywhere."¹² Customer relationship moments impacted are acquisition (data-driven online sales and marketing) and retention (sales in physical store).

Buying a Company

■ **Zillow Group** acquired Virtual Staging AI (VSAI), a generative AI company that allows owners and agents to digitally stage listing images, in October 2024.¹³ VSAI allows real estate agents to style rooms on their property listings without maintaining extensive physical inventories of furniture and accessories. The pictures, described as virtually indistinguishable from traditionally staged homes, drastically reduce wait times to thirty seconds of clicking on the technology's web portal and provide an immersive virtual experience that helps buyers accurately visualize a home before they enter (growth). The technology will be integrated into Zillow Showcase, a premium tool that creates immersive listing experiences, helping agents sell properties faster and for more money.

■ **Ulta Beauty** acquired technology startups GlamST and QM Scientific in 2018. GlamST offers mobile, web, and in-store virtual makeover tools that use augmented reality to provide virtual try-on for hair color, makeup, and eyebrow shaping (retention). QM Scientific offers an AI-powered shopping assistant that learns each individual customer's preferences and habits over time, thus enabling devices, apps, or bots to respond with relevant and timely answers and suggestions (retention). Today, an AI-based skin care virtual beauty advisor is also available on [Ulta.com](#). The virtual advisor enables guests to browse Ulta's skin care assortment by concern or by product. It

also asks a series of dynamically generated questions and presents a set of personalized recommendations for products that can be further reviewed and purchased (growth).¹⁴

“Both GlamST and QM Scientific bring technology leadership, guest experience, focused capabilities, and the right cultural fit,” said Prama Bhatt, chief digital officer at Ulta Beauty. “We now own the technology assets to support our digital experience road map.”¹⁵ In an interview with us, Bhatt also shared her thoughts on the collection of customer data and the future of third-party technology vendors. She said the company is deliberate around customer data and is able to deliver more consistent and connected customer experiences by owning that data, as opposed to being solely dependent on a third-party vendor who executes on its behalf. (Note: You will recall our discussion of customer-focused data needs in step 1; Ulta did exactly that to lay the foundation for its AI activities.)

“As retailers, the ultimate goal has to be to create a single view of our guests’ interaction with Ulta Beauty and the signals they send us, so we can better understand our guests and build strong customer relationships,” said Bhatt. “To do that, we’ll need access to the collective data.” She also said she anticipates that third-party vendors will increasingly enter into strategic relationships in which they provide brands with access to customer-focused data, and in the process become part of a brand’s marketing ecosystem.¹⁶

* * *

Now that you have seen some examples of AI and machine learning buy and/or build strategies, let’s take a look at a company that is a great example of step 4 in practice: Ancestry.

STEP 4 IN PRACTICE: ANCESTRY

If you have ever researched your family’s history, you may be one of twenty-five million paying subscribers who have tapped Ancestry’s extensive collection of more than ten billion digitized historical records. Since 1996, users have created 100 million family trees containing more than 13 billion ancestral profiles, and have uploaded more than 330 million photographs, scanned documents, and stories to their individual trees.¹⁷

Founded as a publishing company in 1983, Ancestry is now the largest genealogy company in the world, operating a network of genealogical, historical record, and genetic genealogy websites, such as [Ancestry.com](https://www.ancestry.com), [AncestryDNA.com](https://www.ancestryDNA.com), [Newspapers.com](https://www.newspapers.com), and [FindaGrave.com](https://www.findagrave.com), to name just a few. Its mission is to “harness the information found in family trees, historical records, and DNA to help people gain a new level of understanding about their lives.” In 2017 the company reported \$1 billion in revenue.¹⁸ Today, Ancestry is a prime example of a firm that employs AI and machine learning across all customer relationship moments, and in

multiple steps of the AI Marketing Canvas, all the way up to step 4 ([figure 20](#)).

To learn more about Ancestry's use of machine learning in marketing across customer relationship moments, we recalled a conversation we had in 2019 with the company's AI leaders at the time: Todd Pollak, then senior vice president for global customer success and product commercialization, and Azadeh Moghtaderi, then vice president of data science and analytics. Pollak and Moghtaderi indicated that the company has invested time and effort in three main areas:

		AI ACQUISITION	AI RETENTION	AI GROWTH	AI ADVOCACY
STEP 4 TRANSFORMATION 	<i>Uses AI to automate complete sets of marketing activities across multiple customer relationship moments or deeply in one or two moments. Most capabilities in house or with partner whose advanced development product is under marketing's control.</i>	ML-driven search advertising	In-house data scientists develop churn-propensity models using all aspects of customer behaviour	Customer info & web signals are used to present the right info at the right time, in the right order to the right customers	Connects customers; promotes WOM
	Q. Should I build in-house or buy a company with the capabilities?	The level of customization of algorithms would require development of in-house AI/ML capabilities by in-house data scientists			
	Q. Where will I find the talent required?	Expand centralized data science team with expertise that could solve problems of interest			
	Q. What AI practices set our marketing apart?	Find similarities in customer behaviors to identify customer segments, and identify their needs and preferences	Personalize website based on the unique customer segment needs	Our ability to effectively predict interests and best product offers	Relationships with consumers lead them to advocate on our behalf

FIGURE 20. AI Marketing Canvas: Ancestry

- Acquiring deep knowledge about what both AI and machine learning are and can do
- Establishing trust between the marketing and data science teams
- Formulating a strategic vision for the use of AI in marketing

Let's look at what Ancestry has done vis-à-vis the AI Marketing Canvas and the various customer relationship moments at step 4. The first place where Pollak and Moghtaderi collaborated was in using machine learning for search advertising. Like most companies, Ancestry first relied on a partner's machine-learning capabilities to supercharge an aspect of

marketing—in this case, step 2 (experimentation) for the customer relationship moment acquisition—and since it works, the company continues to do that. At this juncture, however, Ancestry is applying AI and machine learning across the customer relationship moments with much of the programming and algorithms generated in-house—a good example of step 4. For example, the website content served to Ancestry subscribers is personalized on the basis of their needs and preferences, which are predicted from their search keywords (acquisition).

Ancestry also is continuously improving the customer experience. For example, image recognition is used to crop images from old high school and college yearbooks and match them to user profiles by simple name-to-image linking. Ancestry also uses image recognition to extract familial relationships from obituaries and wedding announcements from Newspapers.com. AI and machine learning are then used to help users find relationships among relatives, extract unique and interesting facts (the color of flowers at your great-aunt's wedding), and increase the accuracy of user trees, thus improving the overall quality of the big tree, which has network effects. (New users benefit when the relationships in the big tree are more accurate.) Also, this content is more recent than what is found in old high school and college yearbooks, increasing the likelihood that younger users will make discoveries when using the service because more recent historical documentation benefits newer generations (advocacy).

Ancestry's AI and machine-learning technology also predicts a customer's interest. For example, are they looking to go as far back as possible in their family tree, or do they want to go deep into the stories of a few people in the family tree? The system provides the user with personalized hints on the website and prompts them to check in by sending personalized emails (retention). Finally, Ancestry uses different aspects of customer behavior as input data to predict the lifetime value of revenue (growth).¹⁹ In this way, it has built on its strong foundation of data and data analytics and its insourced AI and machine-learning capabilities to provide a personalized customer experience at all moments of the customer relationship.

STEP 4: KEY TAKEAWAY

For many firms, step 4 is the full culmination of AI integration in marketing, a full-scale transformation to an AI-first operation. This step focuses on automating every touchpoint of the customer relationship, aiming for best-in-class AI deployment. It's about consistent application, continuous learning through algorithmic analysis, and maximizing returns to solidify AI's value. Strategic capabilities are brought in-house, either by building them or acquiring them. The entire organization commits wholeheartedly to the AI-first approach.

STEP 4: CHECKLIST

- ☐ Gather learnings and wins you can share in a business case for the need to customize algorithms beyond what existing models can provide.
- ☐ Determine what models you want to create that will lead to personalization that consumers will find valuable and that your current vendors do not currently offer.
- ☐ Conduct research to see whether there is a company you can buy to fill that gap, or whether building the models in-house makes more sense.

STEP 4 SUMMARY

- Step 4 of the AI Marketing Canvas is transformation. With at least one customer relationship moment fully automated, or one initiative automated across adjacent moments, you're getting a feel for how to progress up and across the canvas.
- You're consistently deploying AI and machine learning, but the focus is now on increasing the returns curve to compete because, in the end, winner takes all.
- Look for proprietary AI capabilities that, if developed, will set your marketing practice and business apart or eventually become a new source of revenue.
- Create a plan to bring capabilities in-house, partner with a vendor whose advanced development product is under marketing's control, or buy a company (maybe even the vendor, as Ulta did).
- The strategy is to create a "center of excellence" whose objective is competitive advantage.
- Determining whether to buy a company or build in-house is a matter of examining combinations of cost, timing, and degree of difficulty, as well as company culture.

In the next chapter, we'll show you how some brands have taken the final step in our AI Marketing Canvas and monetized the AI models they've created to generate a new source of revenue—and how you can do the same.

12

Step 5: Monetization

“Focus on the customer value imperative—creating new products or business models that deliver value for the market—before your current or potential competitors do.”

—David Rogers, Columbia Business School faculty member and author of *The Digital Transformation Playbook*¹

With most of the customer relationship now AI-powered, you’re ready to maximize the ways the firm can use the AI models you’ve created to drive profitable growth and generate new revenue streams. Step 5 is about looking at your platform, data, and potential and finding ways to create additional value for your firm—and possibly others like it—with what you’ve created in steps 2 through 4. In practice, this process requires you to think about how your company can transform its AI capabilities from *internal efficiency drivers* into *market-facing solutions*. Strategically, in the words of A. G. Lafley, former chief executive officer of Procter and Gamble, and professor Roger L. Martin, you need to know where to play and how to win with the AI you’ve created.² [Figure 21](#) shows what that looks like on our AI Marketing Canvas.

But before we proceed, an important word of caution! It is not easy to take step 5, and few firms will actually venture this far up the canvas. Nowhere has this been more apparent than in the struggles that even mighty GE has faced when it tried to move to step 5 with the goal of becoming one of the top ten AI platforms in the world.

		AI ACQUISITION	AI RETENTION	AI GROWTH	AI ADVOCACY
STEP 5 MONETIZATION 	<i>Uses AI to drive significant new revenue streams and/or new business models.</i> <i>Serve external customers as a platform.</i>				
	Q. What is the business model?				
	Q. How could AI generate a new revenue stream?				

FIGURE 21. AI Marketing Canvas, step 5: Monetization

GE'S STEP 5 AMBITION

In the mid-2010s, General Electric (GE) set out to reinvent itself. Under former chief executive officer Jeff Immelt, the industrial giant launched Predix, an ambitious AI-powered industrial internet-of-things platform. The idea was bold: use the in-house AI tools GE had built to predict equipment failures, optimize performance, and sell that intelligence to the broader industrial world. (A perfect step 5 vision!)

Internally, the concept made sense. GE had decades of operational data and deep domain knowledge of turbines, jet engines, and locomotives. With AI, it could shift from reactive maintenance to predictive service—a major efficiency boost for itself and, it hoped, a compelling value proposition for others. But turning that in-house advantage into a scalable AI business sold externally proved far more difficult.

Predix struggled from the start. GE's engineering culture clashed with the Agile, iterative mindset needed for AI development. (Remember, we talked about the importance of Agile earlier!) What was meant to be an open, flexible platform became bloated and rigid. Customers balked at vendor lock-in, questioned data privacy, and didn't want to overhaul operations around one proprietary system.

Technically, too, the challenge was steep. GE's data was messy and inconsistent, and while it worked well for fine-tuned use cases internally, it wasn't easily transferable across industries externally. The company underestimated how hard it is to generalize AI for complex, physical systems—and overestimated the market's appetite for a single, all-encompassing industrial AI solution.

By 2018, GE's AI dream had unraveled. Predix was quietly dismantled. Billions were lost.³ What began as a promising internal tool couldn't make the step 5 leap to an external platform business. GE's failure with Predix is a cautionary tale: in AI, internal expertise doesn't automatically translate to external success. Understanding the tech isn't enough. You have to understand the market too. So tread carefully should you wish to wade into step 5!

But there are some success stories. It is possible to move to step 5 and monetize the AI you've built for your firm by selling it to others. The following are a few examples of firms that have used AI and machine learning to create new business models and sources of revenue either in their core business or by extending the model or capabilities to other businesses—a source of revenue that can fuel additional development.

STEP 5 EXAMPLES

■ **Mastercard** purchased the Tel Aviv–based personalization and decision logic tech startup Dynamic Yield in 2022. It partners with clients to provide Dynamic Yield's technology, including McDonald's, which previously owned the startup from 2019 to 2022. Dynamic Yield's five core technologies—discover, target, recommend, engage, and optimize—are integrated with Mastercard's (and its clients') systems to solve key business challenges.

Sky, a European media company, engaged Dynamic Yield to drastically scale personalization and experimentation across its three services. The technology delivers an optimized account management page to re-engage users and create urgency to convert new customers and reduce churn across multiple regions and languages (retention and growth).⁴

Tottenham Hotspur, a Premier League football (soccer) team, engaged Dynamic Yield to optimize its Spurs Shop e-commerce site to ingest browser behavior, shopping cart value, and even the current weather to grow conversion rates. It also leveraged social proof to highlight popular items in its shop to increase revenue per session and maximize fan relevancy (advocacy and growth). Nick Connors, the team's global e-commerce manager, said, "The system is pivotal to driving our online offering, allowing us to deliver the greatest possible relevance to our fans throughout the online journey."⁵

■ **Walmart Connect** is Walmart's advertising arm. We discussed in [chapter 10](#) how Walmart has extended its personalization capabilities to adjacent customer relationship moments to better serve customer needs across its omnichannel purchase experiences and to recommend products to grow basket size.

Walmart Connect is the next step to help vendors and advertiser meet customers throughout the sales funnel. When it was first launched in 2015 as Walmart Media, vendors would use it to leverage Walmart's rich customer browsing and purchase data to display sponsored product ads in stores, on its website, and on its mobile app.⁶

Walmart dramatically expanded this program in 2021 by partnering with The Trade Desk⁷ to build a demand-side platform that allows advertisers to reach Walmart's off-site customers and by

tracking purchase behavior to improve campaign attribution.⁸ Fruit of the Loom reached new consumers and optimized its media mix by using Walmart's first-party customer data to predict and reach new potential buyer segments to attain \$10.20 return on advertising spending in net new customers.⁹ Walmart Connect is doubling down on its advertising strategy by purchasing Vizio,¹⁰ a producer of low-cost televisions, and by seeking partnerships with media distributors such as Roku¹¹ to further expand its reach.

■ **Alibaba**, which started life in 1999 as an e-commerce site connecting buyers and sellers of goods, is now a data-driven network of sellers, marketers, service providers, logistics companies, manufacturers, and financial services. It engages in a “smart business” model in which all entities driving toward a common business goal are connected through an online network in which machine-learning technology allows them to leverage data in real time to make strategic business decisions at every level.¹²

In addition to using AI in its core business, Alibaba engages in many AI-driven initiatives. One is the City Brain project, which is helping cities run their operations with artificial intelligence. Every vehicle in the Chinese city of Hangzhou, for example, is monitored by AI, giving Alibaba control of more than 104 traffic light junctions. This has helped the city reduce traffic jams by 15 percent in the project's first year of operation. Alibaba Cloud provides the software, but the city owns the data. This program has been so successful that Alibaba has replicated it across thirty cities worldwide, including a 2022 project improving public transport bus ridership and wait times in Dubai.¹³ Alibaba also has introduced a state-of-the-art digital store option to one million small shops and one hundred superstores across China, where retailers get all of their goods through Alibaba's platform and use its Alipay app.¹⁴

■ **Coca-Cola** has leveraged the learning and capabilities of its Freestyle soft drink dispenser, discussed in [chapter 10](#) as an example of step 3, to create the Powerade Command Center, which coaches and athletic trainers can use to design highly personalized drinks for individual athletes. Currently, the station is only in permanent place at Louisiana State University (LSU), but it has previously appeared at the 2018 World Cup in Russia, among other venues, according to Thomas Stubbs, former vice president of engineering at Coca-Cola Freestyle.

The machine creates singular custom cups of Powerade, with settings that can be adjusted on a digital touchscreen. It is a countertop unit that connects to athlete-management systems. It is portable, so when it's not in the locker room, it can reside on a cart on the sidelines, powered by a battery. Drinks like LSU's custom mix, Tiger Juice, are prescribed for consumption before, during, and after workouts and competitions, personalized to the performance and needs of each individual athlete. The athlete can then adjust the level of sweetness and flavor profile of the drink. LSU is leveraging this personalized capability to care for its athletes in its recruiting efforts, and it's easy to imagine its massive potential as a new revenue stream for Coca-Cola from professional sports and beyond.¹⁵

* * *

Again, let us be crystal clear. Step 5 is not for everyone. If you are a brand focused on mastering step 4—tirelessly asking how AI can further personalize the customer experience and supercharge every customer

relationship moment—that likely will be challenging and profitable enough!

That said, let's look more deeply at what John Deere is doing. It is a prime example of a firm using the AI and machine learning it initially developed for its own use and selling that AI as a service to others.

STEP 5 IN PRACTICE: JOHN DEERE

In the American Midwest, something remarkable is happening. John Deere—a 188-year-old manufacturer of farm equipment such as tractors, sprayers, and combines—is transforming itself into a provider of AI technology. No longer content with selling just “big iron,” as its machinery is often called, today John Deere is also selling intelligence. It is a quiet revolution unfolding across farms, one that illustrates the highest stage of AI maturity—step 5 (monetization)—and its AI capabilities.

While most companies struggle to integrate AI into their internal operations, and others like GE have tried to move to step 5 and failed, John Deere has moved beyond internal-only AI usage to commercialize the capabilities it once built for its own machines. In doing so, it is reshaping not only its business model but also the nature of modern agriculture itself.

From Hardware to Hybrid: The Rise of AI Solutions as a Service

For decades, John Deere's business was straightforward: build equipment, sell it, and occasionally service it. But today, that model is being supplemented and, in time, perhaps eclipsed by a solutions-as-a-service model that monetizes the AI layered on top of the machine.

Specifically, this includes precision agriculture kits, autonomous navigation tools, real-time data analytics, and, most important, a sophisticated licensing model that turns AI capabilities into renewable, recurring revenue streams. Whether a farmer wants guidance accuracy from a StarFire receiver, targeted spraying from See & Spray, or micro-dosing of fertilizer via ExactShot, access to these innovations is now available as subscription software licenses—many of them time-based or use-based.¹⁶

Licensing Models as Monetization Architecture

At the heart of John Deere's step 5 transformation is a sophisticated licensing architecture, built to create and extract value from its AI innovations. The model consists of three core types:

- Permanent licenses (akin to a one-time activation)
- Time-based licenses (renewable subscriptions)
- Use-based licenses (consumption-based pricing, such as per acre sprayed)

These licenses are not an afterthought; they're a deliberate mechanism at step 5 to scale and monetize AI applications originally built for internal use. See & Spray, for instance, uses computer vision to detect and treat only the weeds that need attention. Rather than charging up front, John Deere bills farmers monthly on the basis of how many acres are actually sprayed. No use? No fee. High precision? Higher return on investment. It's a win-win for both farmers and John Deere and a textbook example of AI monetization in action. [Figure 22](#) shows what John Deere's step 5 canvas looks like.

Notice that the shift here is not just financial. Moving to step 5 also changes the psychological contract with the customer. Farmers no longer feel like they're buying expensive equipment that might be obsolete in five years. Instead, they gain access to a constantly improving system of capabilities to better manage their land updated via software, enhanced by data, and priced in a way that aligns with their usage patterns and operating budgets.

The Platform Beneath the Tractor

To support this new model, John Deere has also built a comprehensive digital infrastructure. The John Deere Operations Center is the central hub, allowing farmers to manage fields, equipment, and agronomic data in real time. Now, a new component, the Licenses Tool, lets users manage their software licenses across their fleet, transfer them between machines, and monitor expirations.

This tool is more than just a dashboard. It represents the invisible architecture required to monetize AI at scale. Visibility, transparency, and control are critical to adoption, especially in industries like farming, in which operational complexity and seasonal variability demand flexibility.

		AI ACQUISITION	AI RETENTION	AI GROWTH	AI ADVOCACY
STEP 5 MONETIZATION 	<i>Uses AI to drive significant new revenue streams and/or new business models. Serve external customers as a platform.</i>				
	Q. What is the business model?	Pay-as-you-go model for precision ag tech (e.g., Essentials Kit); software & hardware bundled into subscriptions	Time-based licenses (e.g., StarFire receiver access, AutoTrac features); delivered through Ops Center	Use-based licenses (e.g., See & Spray, ExactShot); pricing tied to acres treated	Platform-enabled customer control via Ops Center; transparent billing and license management
	Q. How could AI generate a new revenue stream?	Farmers subscribe to Deere's AI tools as services (navigation, spraying, planting) rather than buying outright	Renewals of AI-powered licenses and features create recurring revenue	Expansion of AI-enabled tools into more equipment types and global markets	Customers promote value and precision gains enabled by Deere tech; Deere becomes an agtech influencer

FIGURE 22. AI Marketing Canvas: John Deere

Behind the scenes, this digital layer collects vast quantities of data on soil conditions, crop health, machine performance, and environmental factors. As John Deere refines its AI models with each field pass, the value of its offerings grows. It's a classic flywheel: more usage begets better insights, which in turn lead to smarter machines and better farming outcomes.

This data network effect, rare among industrial firms, distinguishes John Deere from its peers. While others still think in terms of product sales, John Deere is moving toward a platform model in which value is increasingly derived from the intelligence it enables.

What makes John Deere's evolution so noteworthy is not just that it led to building smart tools; it's that the company had the vision, the infrastructure, and the customer relationships to turn internal AI into a commercial product line. It checks every box of our five-step AI Marketing Canvas model:

- Proprietary AI capabilities developed for internal efficiency
- Structured deployment via hardware, software, and integrated systems
- External packaging into licenses, subscriptions, and platform tools
- Ongoing monetization through recurring revenue
- Strategic scale and differentiation through data-driven services and platform extensibility

Critically, John Deere isn't just charging for access. It's building a new basis of competition. In an industry in which yield improvements are hard-won and operating costs are under pressure, the ability to promise higher precision, lower waste, and automated performance is powerful. As John Deere's chief financial officer put it on a recent earnings call, early experiences with pay-as-you-go kits "exceeded expectations," particularly among customers who previously saw advanced tech as out of reach.

Moving from AI Users to AI Sellers

John Deere's transformation offers a prime example for any company looking to graduate from using AI (step 4) to externally monetizing its AI-based capabilities (step 5). Its playbook demonstrates how a legacy firm can develop technology for its own use, then commercialize it in ways that are profitable, scalable, and strategically defensible.

It also reveals a truth often lost in the hype around AI. Monetization is not about the algorithm; it's about the system. John Deere didn't just build better models. It redesigned how those models are accessed, experienced, and valued by customers. That's what makes its step 5 maturity so potent and so rare.

STEP 5: KEY TAKEAWAY

Monetization is the most advanced stage of AI maturity, when companies use the AI models that they've built to create entirely new revenue streams or business models serving external customers, not just internal needs. But it's not for everyone. Many firms find success simply by mastering earlier steps. Moving into step 5 requires strategic clarity, in-house innovation, and a relentless focus on creating customer value. It's hard to do, and even GE—despite deep industrial expertise and rich data—stumbled when trying to commercialize its internal AI as an external platform. The lesson: monetizing AI externally is possible, but only if you truly understand where to play and how to win.

STEP 5: CHECKLIST

- ☐ Examine your current AI platform and data stores and figure out what it would take to turn them into a new revenue stream by selling, renting, or licensing what you've built to other companies.

STEP 5: SUMMARY

- Step 5 of the AI Marketing Canvas is monetization. In this step, AI is used to drive significant new revenue streams and/or new business models and serve external customers as a platform.
- Step 5 is not for everyone. If you are a brand focused on mastering step 4, that may be challenging—and profitable—enough!
- At this level, AI and machine learning are used to create new business models and sources of revenue, either in the core business or by extending the model or capabilities to other businesses, thereby creating a source of revenue that can fuel additional development (the flywheel effect).
- Likely most development at this point will be in-house because the models you are creating now represent a strategic and competitive advantage.
- The advantage of developing in-house is that you have the freedom to experiment—to combine and repurpose models to achieve different outcomes.
- Keep experimenting, while also staying focused on activities that will improve customer relationship moments and consumer experience and create value you can talk about.

By this point, you have a solid understanding of what artificial intelligence and machine learning are all about, and why these technologies will be increasingly important for you as a marketer. You also know how your marketing organization can build AI and machine learning into its marketing tool kit by energizing the five steps of the AI Marketing Canvas as your road map. It's *the* playbook for AI success!

In fact, recent research by Boston Consulting Group and Google, based on insights from more than two thousand marketers globally, has effectively validated the AI Marketing Canvas model.¹⁷ Their “path to AI marketing success” mirrors and reinforces our established canvas framework, identifying four stages they call essentials, scaling, leading, and transforming, which closely follow our steps 1 to 4. This important research confirms that our pioneering canvas isn't just a thought exercise or a passing fad. The five-step AI Marketing Canvas is the real-world path that high-performing, AI-first marketers are already following—and that you need to follow too!

In the next chapter, we'll take a close look at three brands that have successfully worked through multiple steps on the AI Marketing Canvas and are now using AI and machine learning to win customers' hearts and minds.

13

Three Brands' AI Journeys

“Examining and dissecting case studies of other brands’ experiences is the best way to learn the key lessons for your own brand.”

—Raj’s advice to his MBA students

Now that you have a thorough sense of the AI Marketing Canvas and have seen examples of what brands are doing at each of the five steps, let’s take a closer look at three brands that have undertaken significant AI marketing initiatives.

We’ll first look at Chartered Financial Analyst Institute, then Yum! Brands, and finally Flipkart, an Indian e-commerce platform, to examine what they have done. While each brand has undergone its own unique journey, we can map them to their appropriate step on the canvas.

CFA INSTITUTE: JOURNEY TO STEP 3

Chartered Financial Analyst (CFA) Institute is a global, not-for-profit organization dedicated to advancing the investment profession by promoting ethical standards, education, and professional excellence. This organization offers a range of programs and certifications, including the CFA designation, to support lifelong learning and career development in the finance industry. CFA Institute also aims to shape investment practices and policies worldwide through its research, thought leadership, and advocacy efforts.

In its 2024 fiscal year, CFA Institute employed roughly 550 people and operated offices around the world, including in New York, London, Hong Kong, and Charlottesville, Virginia. During this same time, it recorded just over 208,000 CFA exam administrations worldwide, approximately 56 percent of which were based in the Asia Pacific region. It had an operating revenue of \$375 million. The organization has a membership of more than 211,000 professionals across 160 locations globally.¹

Beginning the AI Journey

In the fall of 2023, CFA Institute leadership approved a skunkworks AI team to develop use cases for different ways to use AI within the organization. The group's first project was an AI-generated microcourse on prompt engineering for investment professionals. Mark Snuffin, the head of product architecture, said, "We haven't published the course yet, but we used it as a platform to show leadership what we could do with AI. It was included in our internal learning ecosystem. People within the company could take the course."²

Snuffin and his team began by asking ChatGPT to generate a narrative for the course, then instructed it to develop lessons and modules. After the initial iteration of the course, they had human users check the course content for accuracy. "The training process took a ton of time," said Snuffin. "We checked everything in the microcourse, and there were a lot of hallucinations. The generative AI programs will gladly generate six courses for any topic, but there is no guarantee that they will be accurate. You need humans in the loop."

With buy-in from leadership to pursue an AI initiative, a more formal AI team was formed under the product management division. In parallel, CFA Institute engaged a leading management consulting firm to help formulate an AI strategy for the organization. Through this engagement, many opportunities for applying AI were identified by various business stakeholders. These opportunities spanned in scope from increasing employee productivity to new product generation. "Everyone talked about building products with this thing," Snuffin recalled. "We had a big debate about whether we should focus on products or productivity. We decided to explore both with limited resources."

Experimenting with Using AI Partners

Initially, CFA Institute subscribed to both OpenAI's ChatGPT and Microsoft Copilot, reasoning that the tools could help employees draft emails, take notes, and accomplish other rote tasks. However, after the consulting engagement, the AI team opted to leverage AI to generate marketing content, thereby cutting down the time writing content, reducing costs of outsourcing the work to agencies, and leaving more time for the subject matter experts in marketing to focus on strategy. Accordingly, the AI team evaluated tools that could help and eventually landed on Copy.ai, an AI tool that specializes in helping go-to-market teams generate content.

With the help of Copy.ai, the marketing team now has a set of workflows for generating content in a repeatable and consistent manner. The organization's brand voice, trademarks, and style guidelines can be uploaded to Copy.ai and applied to all outputs. "As with all content produced with generative AI, 'human in the loop' is crucial for ensuring it meets our accuracy and quality standards," said Heather Lindeman, director of AI products. "A member of the marketing team will always review the content before publishing."

For example, a product marketer used Copy.ai to generate LinkedIn content for an Ethics Day post by providing the tool with a large body of knowledge on ethics in the investment industry, then prompting it to provide her with a series of questions relevant to the content and aligned with the brand voice. She then shared the questions generated with a CFA Institute subject matter expert who provided answers. This question-and-answer segment was then transformed into a LinkedIn carousel post. The post had great engagement, and the marketer estimated that the use of Copy.ai saved her a week's worth of work. "We get the most value from Copy.ai's workflows, which let us create repeatable processes that we can break down into individual steps," said Lindeman. "This capability tends to make the results better."

As the team introduced AI to their operations, they also coordinated with the legal department to develop an AI acceptable use policy. To accommodate for the rapid pace of change within AI development, the legal team crafted a general policy, limiting the need for frequent updates. The policy set expectations on how to interact with AI tools, outlined common risks of AI use, and established permitted and prohibited uses for AI. The

legal team also created an AI compliance training to familiarize employees with AI best practices.

While Snuffin and his team were pleased with the progress they made in using AI for workforce productivity, some employees remained skeptical of AI. “We don’t have buy-in across the board yet,” Snuffin said. “We have been on an AI journey as an organization, and there are still people who feel AI isn’t useful for them. We are working on encouraging everyone at CFA Institute to use AI. We want them to think of it as an essential tool like email or a computer.”

To encourage employees to become comfortable with AI, the AI team holds monthly touchpoint meetings for the entire organization. The meetings encourage colleagues from across the organization to share their positive experiences with AI, including ways in which it has helped them in their roles. “We want to make AI more approachable,” explained Lindeman. “We hope these meetings inspire them for how maybe they could use AI in their day-to-day work. We also want to combat the idea that AI is going to steal their jobs.”

Examining What’s Next for CFA’s AI Journey

Snuffin estimated that by March 2025, 60 percent of the organization was regularly using ChatGPT, Copilot, or Copy.ai in their roles. The AI team was also tracking the proportion of the company’s AI-generated marketing materials to quantify the productivity benefits from Copy. ai. In the short term, the AI team planned to customize workforce productivity tools to specific CFA Institute departments—such as a tool to analyze notes for the business development team and a program to execute end-to-end marketing campaigns via AI.

Meanwhile, developing new content offerings via AI remained an ongoing goal. Although CFA Institute had not yet released any purely AI-generated courses, it had used AI to create certificate programs based on its existing curriculum. The company’s first AI-supported product, a private wealth certificate based on the company’s private wealth curriculum, launched in spring 2025. Other areas of exploration included using AI for translations, creating an AI-based assignment reviewer, and developing additional AI-generated certificates. “We want to take the wealth of knowledge CFA Institute is sitting on—our content—and use AI to create products based on it,” said Snuffin. “We have already created and vetted the

source material, so the process is different from using the AI to create new content.”

As he reflected on CFA Institute’s AI journey from fall 2023 to spring 2025, Snuffin said, “This is not necessarily a story about AI; it’s a story about moving outside our comfort zone. AI enabled us to do these things, but we are still a business, and encouraging AI uptake throughout the organization has been a change-management process.”

Progressing Through the AI Marketing Canvas

As of spring 2025, CFA Institute had progressed from step 1 to step 3 of the AI Marketing Canvas and was making progress toward the final two steps. It achieved step 1 (foundation) through drawing on its in-house content for its AI products. Using its existing curriculum, research, thought leadership papers, and brand voice ensured that the data that flowed into its AI programs was accurate and consistent with the organization’s standards. “We saw AI as a tool to unlock more value from our intellectual property and free our experts to focus on the highest-impact work,” said Snuffin.

CFA Institute executed step 2 (experimentation) by drawing on ChatGPT, Microsoft Copilot, and Copy.ai to create content. With these third-party tools, the organization built internal support for AI and established a collaborative relationship among different teams.

CFA Institute reached step 3 (expansion) by forming the AI product team to support the organization’s other business units with both AI tools and frameworks. The marketing team also scaled its Copy.ai workflows to support multiple campaign types and created repeatable processes for the company’s product launches, event promotions, thought leadership circulation, and international outreach. The organization was on its way to transformation and exploring monetization ideas.

YUM! BRANDS: JOURNEY TO STEP 4

In the hypercompetitive category of quick-serve restaurants, few companies are moving faster or more deliberately toward AI-powered marketing leadership than Yum! Brands (hereafter Yum). The parent company of KFC, Taco Bell, Pizza Hut, and Habit Burger & Grill, Yum has long understood the power of scale. By 2025, it operated more than sixty-one thousand restaurants worldwide, opened a new outlet every two hours, and employed more than a million people across its system.³ But sheer size is no longer a guarantee of success. Yum's leadership recognized that to continue to thrive, the company needed to transform its customer experience and marketing-operations model with AI. Yum's AI journey provides another clear illustration of how the steps of the AI Marketing Canvas can be put into practice.

Building a Data and Insights Infrastructure

Yum's first critical move was to invest early and heavily in consumer understanding and first-party data capture. In 2015, it acquired Collider Lab, a boutique consultancy that blended anthropological and sociological expertise to study the cultural forces shaping consumer behavior.⁴ This investment went beyond traditional market research, giving Yum a deeper, more human-centric view of why consumers made the choices they did.

At the same time, Yum systematically expanded its first-party data collection. Across its brands, the company began collecting rich behavioral data: audio recordings from drive-through orders, camera footage of vehicles in drive-through lanes, point-of-sale transactions, app and mobile order histories, and location data.⁵ By 2021, Yum had amassed a database of trillions of individual consumer interactions, providing an unparalleled foundation for AI-driven marketing initiatives.⁶

"We're watching very, very carefully as consumer behavior starts changing, and we adapt very fast," said Ken Muench, chief marketing officer, in highlighting Yum's growing data-driven reflexes.⁷

Testing AI in Targeted Pilots

Armed with a robust data platform, Yum moved quickly into the experimentation phase. In 2021, it acquired Kvantum, a specialized AI firm focused on media optimization and marketing performance analytics.⁸ Yum paired Kvantum's predictive models with Collider's qualitative insights to automate previously manual tasks and slash analysis time from four hundred hours to just forty.⁹

In parallel, Yum expanded its experimentation with operations-focused AI by acquiring Dragontail Systems, which optimized kitchen workflows, delivery scheduling, and driver dispatching.¹⁰ It also acquired Tictuk Technologies, enabling customers to place orders through messaging apps, social media, and text.¹¹ Implementation of each of these technologies began as experiments, initially deployed in limited settings: Tictuk at nine hundred restaurants across thirty-five countries, Dragontail at fifteen hundred Pizza Hut locations in ten markets, and Kvantum analytics in thirteen initial markets.¹²

These pilots were deliberate and contained, allowing Yum to test AI applications across marketing, ordering, and operations while managing risk and learning at pace.

Scaling Proven AI Solutions Globally

After demonstrating clear returns in its pilots, Yum aggressively scaled its AI capabilities. By late 2021, digital sales were up 25 percent year over year. Tictuk expanded to two thousand restaurants; Dragontail's systems reached twenty-eight hundred KFC and Pizza Hut outlets across twenty-one markets; and Kvantum's marketing-optimization tools were operating in forty-five markets.¹³

At the same time, Yum launched new AI-powered inventory-forecasting tools in three thousand KFC and Taco Bell locations in the United States, helping store managers better predict food needs, reduce waste, and optimize supply chain logistics. These expansions were not random; they were methodical, following proof of performance and focusing on high-leverage areas where AI could drive immediate efficiency and revenue gains.¹⁴

The success of these initiatives helped fuel a major surge in growth. From 2020 to 2024, Yum's global system sales jumped from \$50.4 billion

to \$65.4 billion, and the number of restaurants grew from fifty thousand to more than sixty-one thousand.¹⁵

Embedding and Scaling AI Across the Business

In 2025, Yum began the critical move from tactical deployment to strategic integration of AI at the core of its operations. The launch of Byte by Yum, a comprehensive, in-house digital platform, unified its disparate AI capabilities into a single system. Byte served as the company's "operating system" for AI, supporting everything from point-of-sale and mobile apps to labor scheduling and delivery management. By centralizing AI applications and embedding them into everyday workflows, Yum made its technology more accessible to franchisees and frontline workers.¹⁶ This was a vital step for scaling AI adoption across such a large and decentralized organization.

Joe Park, chief digital technology officer, described the ambition succinctly: "We think having these little copilots in the app will make technology more accessible and communication easier. It won't feel like tech."¹⁷

Deep technology partnerships further accelerated this transformation. For example, working with Nvidia, Yum deployed AI-driven voice-ordering systems in drive-throughs, computer vision tools to optimize traffic flow, and recommendation engines to assist restaurant managers in decision making.¹⁸ Critically, Yum shifted its technology philosophy from licensing third-party solutions to building and owning proprietary AI systems. This move was designed not only to capture efficiency gains but also to ensure Yum had long-term strategic control.¹⁹

At the same time, Yum launched a wave of AI-driven personalization initiatives aimed directly at the customer experience. AI models customized marketing messages, promotional offers, and loyalty incentives across brands and digital channels. Early results were impressive: AI-targeted campaigns delivered double the engagement of traditional marketing efforts.²⁰ As Chris Turner, chief financial officer, noted, "This breakthrough is just the beginning." Yum aimed to embed AI personalization at every touchpoint, continuously learning and optimizing to deepen customer relationships and drive incremental growth.²¹

Yum's journey is a textbook case of moving through the first four steps of the AI Marketing Canvas. By methodically building a data foundation, experimenting with AI pilots, scaling successful use cases, transforming their core business systems, and continuously optimizing customer engagement, Yum has positioned itself to win not just with scale but also with powerful AI as an accelerant.

If your firm is looking to make a similar leap, we'd highly recommend you study Yum's deliberate, disciplined approach, following the steps in the AI Marketing Canvas.

FLIPKART: JOURNEY TO STEP 4

When we are asked for an example of a company that exemplifies the advanced steps within the AI Marketing Canvas, we typically point to Flipkart. Founded in 2007 by two former Amazon employees, Flipkart is an Indian e-commerce platform that sells a variety of consumer products, including clothing, online travel packages, electronics, toys, appliances, home goods, and grocery items. As of 2022, Flipkart was one of the largest e-commerce companies in India.²²

While many Western consumers might not be familiar with the platform, it has consistently adopted AI-driven measures to improve customer convenience, offer users personalized support, and make itself accessible to people who were previously unable to access the platform. To highlight a final example of how you might approach AI implementation following the AI Marketing Canvas, let's examine Flipkart's AI journey.

Building an AI Foundation

Flipkart's first 150 million customers came from India's fifty most populated cities and were early to adopt e-commerce. This cohort was primarily between eighteen and thirty-four years old and tended to be fluent in English. Many were male, had a high tolerance for financial risk, liked testing new products before they went on sale, and often engaged with brands or displayed their purchases on social media.²³ However, as the company matured, its customer acquisition stalled. To continue to grow, the company's leadership team realized that it needed to expand to a broader pool of people.²⁴

Most of Flipkart's new target customers were twenty-four years old or younger and came from low-or middle-income households. They also typically preferred to shop in their native language. In 2017, 70 percent of Indian internet users struggled with English keyboards, while 60 percent cited language barriers as their biggest obstacle to accessing web-based services. In addition, approximately 10 percent of online platform users adopted voice search, while 30 percent of users new to e-commerce visited sites through a vernacular platform interface; that is, an interface that allowed users to engage with the platform in their native language.²⁵

The Flipkart team knew that serving these prospective customers in their preferred languages would be key to continuing to grow. However, since India has twenty-two official languages, the prospect of expanding Flipkart's language offerings was daunting.²⁶ The dilemma prompted Flipkart's team to seek out ways to use AI to bridge the platform's language gap. Since neither Google nor Microsoft's voice-to-text technologies were accurate enough to meet Flipkart's language needs, the company concluded that it would need to develop its own translation features internally.²⁷

Through collecting a vast trove of customer data and soliciting feedback on consumers' language preferences, Flipkart achieved the first step of the AI Marketing Canvas: building the foundation for machine learning.

The Liv.ai Acquisition

Flipkart continued its AI journey through the 2018 acquisition of Liv.ai, a technology company that offered an automated speech-to-text program capable of detecting ten major Indian languages. Liv.ai's founders had created the company to address the very problem that Flipkart was trying to solve: expanding access to e-commerce for non-English speakers throughout India (whom the founders dubbed "mute spectators" due to their inability to make the most of the internet's offerings). In addition to its AI-powered technology (which included deep neural networks and natural language processing), Liv.ai created one of the largest graphics-processing-unit-based supercomputing facilities in the country.²⁸ Overall, industry experts estimated that the number of voice commerce shoppers in India would reach 168 million by the end of 2022. A Flipkart senior product design manager said, "What we're seeing around the world is a broader shift in computing. The big shift towards mobile from desktop and even from cellphones to smartphones—from typing to swiping—was a huge shift in the computing paradigm. Voice is the next step in that shift."²⁹

Through Liv.ai's software, users could dictate text to the translation model through their device's microphone. Flipkart initially piloted the voice-to-text program in English and Hindi, then asked users about how they preferred to use the new technology. As the pilot progressed, the company experimented with different features, including a voice-authenticated log-in system, voice-guided navigation on Flipkart's app, voice-driven search, voice-based payments, and voice-directed discovery assistance. After users provided feedback on how they wanted to use the voice feature, Flipkart selected its first use cases.

To test the accuracy of the voice feature, Flipkart randomly selected 10 percent of all app users and calculated the feature's word error rate (WER). "Our WERs were fairly poor, and we limited our exposure to 10 percent because we wanted to use this opportunity to gather data to improve the model," said a Flipkart product manager. "The initial part of developing a voice app—there's always going to be a big hurdle. It's an ML-based feature that's built on top of model-based design tools, which need a lot of training over time."³⁰

As the Flipkart team developed the app, they also had to contend with user experience concerns. For example, although the voice-activated feature

supported product search and information collection, it was not suitable for every stage of the customer journey. The Flipkart team also suspected that users would only want to use the app in private, as they would not want to reveal their shopping behaviors in a public setting. Finally, there was the risk that shoppers would still be unsatisfied even after a fully functional voice feature was available in all of India's official languages. Even after dedicating twelve years and an estimated \$200 million to developing Siri, Apple's voice-based digital assistant still drew sharp criticism from some users.

Through the voice-to-text translation tool, Flipkart achieved the second step of the AI Marketing Canvas: experimenting with third-party tools to identify weaknesses and pain points throughout the customer journey.

Building an AI Powerhouse

In late 2019, Jeyandran Venugopal was promoted to become Flipkart's chief product and technology officer. Previously, he had served as senior vice president of product and engineering for the company's consumer shopping experience and applied science and technology functions. Within his role, he oversaw Flipkart's big data projects, app development, and user engagement initiatives.

For several years, Flipkart's leadership team had sought to build its data science capabilities. "We've had a fairly strong analytics practice, as well as a top-notch team of data scientists," said Venugopal. "I'd say in the India ecosystem today, Flipkart is well recognized for having one of the best data science organizations in the country. Typically, all our senior researchers got their PhD from top-tier universities in the United States and have worked for a couple of decades or so—anywhere between one and two decades—at various top-tier companies in the United States."

In 2020, Flipkart established the Flipkart US R&D Center in Bellevue, Washington. The geographically dispersed group, which Flipkart dubbed its "dedicated Center of Excellence for Artificial Intelligence," was composed of AI teams that conducted research around the latest AI and machine-learning advances in chatbots, computer vision, health care, and natural language processing. The center also launched Billion AI 2022, a conference that gathered academic and industry leaders to discuss topics in technology, including AI in supply chains and virtual-reality solutions for digital commerce, customer experience, and visual search.

Venugopal's promotion and the development of Flipkart's data science team marked stage three of the AI Marketing Canvas: expansion. As Flipkart's AI champion, Venugopal expanded the company's AI capabilities and positioned it to continue developing AI-based products.

Creating Internal AI Tools

After Venugopal's promotion, Flipkart deepened its focus on developing in-house AI tools. One of its first initiatives was an internal AI model that translated the platform's content from English and Hindi to eleven different Indian languages. When a user input a word or phrase into the search field, the AI model automatically detected the language and then translated other fields on the platform, such as the merchandise titles and descriptions, search results, product details, and payment options. As the Flipkart team developed the model, they focused on incorporating the nuances of the different languages—such as common colloquialisms—into the system. They also conducted a study to learn about users' language preferences and discovered that their ideal translations varied by region. For example, users who spoke Kannada preferred colors to be transliterated, while Tamil and Telugu speakers preferred colors to be translated.³¹

In 2022, the R&D Center announced the launch of a chatbot that supported customers as they considered purchasing items on Flipkart. The chatbot initially fielded users' questions through an AI model that drew on Flipkart's product descriptions and user reviews. If it was unable to answer a specific query, it escalated the conversation to a human customer service agent. Over time, the Flipkart team expanded the model to address a broader array of user queries. In parallel, they discovered that the proportion of queries that required human intervention declined.³²

Flipkart ultimately expanded its internal AI initiatives to provide product descriptions for its stock keeping units, image matching, and customized pricing. While Flipkart's proprietary, customer-facing products supported the company's growth, they were also born out of necessity. As Mayur Datar, chief data scientist, observed, "Access to technology itself is limited in the country." Similarly, the company had a limited ability to apply international technology products, as it could not address India's multiple languages and dialects, as well as the prevalence of code switching (that is, alternating between languages or dialects throughout a conversation).

Flipkart’s in-house AI initiatives illustrate an organization at step 4 of the AI Marketing Canvas—one that is fully transformed, taking an AI-first approach that automates all the moments of the customer journey.

Business Impact

Flipkart’s AI investments ultimately yielded results. By 2022, Flipkart’s voice search feature had more than five million active users, while the company’s overall customer base reportedly increased 40 percent between 2020 and 2022. Ekart, the company’s logistics division, handled ten million monthly deliveries, up from two million in 2017. Its annual revenue increased 18 percent year over year to \$4.6 billion, while its proportion of rural customers had increased 60 percent relative to recent years.³³

Flipkart also experienced significant growth during its annual Big Billion Days sale, an eight-day event that offered discounts on products throughout the site. During the 2022 sale, roughly half of Flipkart vendors experienced 150 percent growth relative to the previous year’s event. The number of vendors participating on Flipkart Samarth, a platform for Indian craftspeople and rural entrepreneurs, increased 500 percent relative to the previous year. Meanwhile, 60 percent of the event’s customers resided in Tier 2 cities (area with populations between one million and five million) and Tier 3 cities (areas with populations between one hundred thousand and one million).³⁴

YOUR BRAND’S AI JOURNEY

We hope these three brand journeys help you further understand what an AI marketing transformation actually looks like in practice, and what your journey could look like. Of course, your journey will be unique and different (as you saw, the three brand journeys were themselves different). But at this point you now have a firm grasp on the “why” and the “what” of AI in marketing—especially the “why now.” Here are some other things we hope you’ve learned from the first three parts of this book:

- The three forces—technology, customer connectivity, and information abundance—and how they’re impacting your business today
- Context for how this process evolved, based on a historical progression of the three waves of marketing, from mass marketing and segmented marketing to data-driven digital marketing to where we are today, which is one-to-one personalized marketing

- The basic computer science underpinning AI and machine learning (which we hope wasn't too painful)
- A basic understanding of how to use the AI Marketing Canvas framework to create a strategic road map for incorporating AI and machine learning into your marketing tool kit
- Inspiration and clarity, based on examples of what dozens of brands are doing at each of the five steps in the AI Marketing Canvas

Next, in [part 4](#), we will turn our attention to *how*. [Chapter 14](#) is devoted to addressing the key implementation issues you will face in workflow, processes, and people required, and also in the cultural changes that will be required to effectively implement the AI Marketing Canvas and make the shift to AI-powered marketing.

PART 4

LEADING THE AI TRANSFORMATION

14

Change Management

“AI and machine learning is shuffling the deck on every level and in every category, just like digital and big data did a few decades back. This seismic shift will require new thinking, skill sets, strategies, and systems, and will require the organizational culture to evolve as well.”

—Nicolas Darveau-Garneau, former chief evangelist, Google¹

Becoming an organization driven by AI and machine learning is a tough pivot for any company—even for one as tech-forward as Google. Yes, even Google has had to make the shift to being an organization powered by AI and machine learning. Let’s take a look at how it made the shift so you can get a sense of the changes your organization will also need to go through.

GOOGLE’S TECHNICAL SHIFT TO AI

Google is the largest subsidiary of Alphabet Inc., a holding company based in Mountain View, California. Alphabet has a market cap approaching \$2 trillion, making it one of just nine US companies to ever achieve a trillion-dollar valuation.²

Google’s main source of revenue is search and ads. When it was founded in 1998 by Larry Page and Sergey Brin, Google’s original innovation was an algorithm called PageRank, which better identified the most relevant websites to return as search results by examining relationships among websites. PageRank was a rules-based algorithm that looked at the number of pages in a given site and the importance of the pages that linked to them. When you entered a search, Google’s machines would crunch millions of if-then statements in milliseconds and return the best search results. (Recall we talked about the rules-based, if-then approach in [chapters 3 and 4](#).)

In Google’s earliest days, there was no machine learning involved in this process; it was all about distributed computing on a massive scale. At the time, this was a huge step forward from other early search engines, which used either human editors, who hand-determined which search results to

show, or simple rules, like how many times your search term appeared on a page, to determine the search results you would see. At least since 2006, however, Google Search has been undergoing a substantial change in the way it works. Now machine learning and neural networks determine the search results you see. This focus on machine learning intensified with the advent of the ImageNet project in 2012 (discussed in [chapter 4](#)) and Google's 2014 acquisition of a company called DeepMind.³

The search result listings you see today are the result of what Google calls RankBrain. The experts at [Moz.com](#) describe RankBrain as “a component of Google's core algorithm which uses machine learning (the ability of machines to teach themselves from data inputs) to determine the most relevant results to search engine queries.”⁴ So the results you see today when you search “What is the best hotel in Paris?” (Hotel George V, of course!) or “What 1940s Hollywood actress was also an inventor?” (Hedy Lamarr, featured in a Google Doodle in 2015) appear because of machine learning. That's how Google search results continue to get better and better.

In May 2023, Google introduced an experimental feature at the top of the search results page called its Search Generative Experience (SGE). SGE aimed to provide AI-generated summaries and responses to search queries. Later, Google rebranded SGE as AI Overviews, and in May 2024 began the wider rollout of it to all US searchers, followed by its rollout of AI Mode in May 2025. Thus, while AI has been implemented in Google's search results for quite some time through machine learning, AI Overviews and AI Mode give users responses driven by generative AI.

Of course, Google is now in a major battle with generative AI chat platforms such as ChatGPT, Perplexity, Claude, and others to be the tool of choice going forward for users looking to find AI-generated answers to their informational and commercial questions. Google is investing heavily to try and stay on top. Time will tell how that competitive situation unfolds. We are not here to predict the outcome but rather to use Google as a case study for the cultural change required to transform into an AI-first organization.

GOOGLE'S CULTURAL SHIFT TO AI

While Google's engineers were able to make large advances with machine learning, that's just half of the story. Making technical progress with machine learning is one thing, but managing the organizational change to bet your company's future on machine learning, as Google is doing, is another challenge altogether. That takes leadership and a new way of thinking about your people, processes, culture, and potential sources of profit.

Recognizing the need to drive this change across Google, Eric Schmidt, then executive chairman of Alphabet (Google's parent company), and Sundar Pichai, then chief executive officer of Google, now chief executive officer of Alphabet, began making the external and internal case several years ago. At Google's Cloud Next conference in 2017, Schmidt very directly declared, "I'll bet the rest of my professional career that the future of your business is big data and machine learning applied to the business opportunities and customer challenges . . . before you. You're going to use machine learning to take that data and do something that's better than what the humans are doing." He predicted that it would "create huge new platforms, companies, IPOs, wealth, and enormous things going on in the future."⁵

While the staff at Google were generally aware of machine learning before 2017, most saw it merely as something interesting or evolving or worth keeping an eye on, but they did not yet see it as the main focus of the company—or their own personal future. So that statement by Schmidt *rocketed* through Google. It was a clarion call to employees, motivating them to start focusing on machine learning. It was when everyone at Google recognized, "This is our future as a company, and it's critical to my future career as a working professional."

Echoing and amplifying Schmidt's statement, Pichai declared during a 2017 analyst call, "I do think in the long run we will evolve in computing from a mobile-first to an AI-first world." And then, at a town hall in January 2018, he said, "AI is one of the most important things humanity is working on. It is more profound than, I don't know, electricity or fire." These statements really got the attention of Google's staff, and change began to happen rapidly. Pichai pushed teams to revamp all of Google's products and services to be AI-powered, and pushed for every employee to

personally become versed in the fundamentals of machine learning. Google launched the website <https://ai.google/> for its employees and the world to start to learn more about this advanced approach to computing and problem solving. Perhaps most important was that Pichai put machine-learning expert John Giannandrea in charge of Google Search, firmly establishing machine learning as its core product to power both search results and ads, thus further shifting the collective mindset.⁶ The point is that even Google has had to change the way it thinks and shift its corporate mindset to ensure that it can continue to deliver the machine-learning-powered personalization required to succeed now and in the future.⁷

Now, we know that every company is not a trillion-dollar global company like Google. You may be working at a midsize company or a startup, or you may be the sole proprietor of a one-person consulting firm. Regardless of your size, the kind of transformation to AI and machine learning that happened internally at Google will also need to happen in your organization and within your team.

How can you lead that transformation? You need to follow and apply a change model.

From the story of Google's transformation to an AI platform we can see that Schmidt and Pichai followed the eight-step change model that John P. Kotter laid out in his 1996 book *Leading Change* (figure 23).⁸ The first three steps—increasing urgency, determining management, and establishing vision—are about creating the climate for change. The next three steps—communicating buy-in, enabling authorization, and creating short-term wins—are about engaging and enabling the organization. The seventh step is not easing up, and the eighth is reinforcing the course once it is set. Google's leaders created the climate for change, then engaged and enabled the organization, created short-term wins, and didn't ease up. They kept reinforcing the new direction!

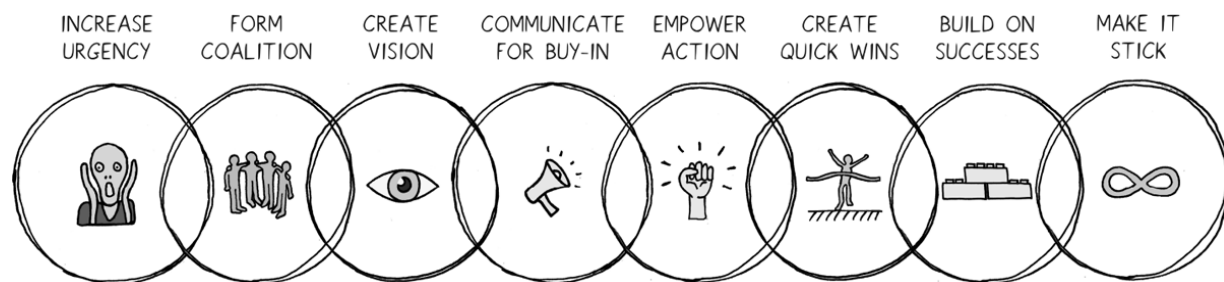


FIGURE 23. Kotter's eight-step change model

Similarly, we argue that you, as a marketing leader within your organization, will need to make the case for a shift to marketing powered by AI and machine learning, and then create the climate for change; engage and enable your organization; create some short-term wins (steps 1 and 2 on the AI Marketing Canvas); and refuse to ease up, reinforcing the new direction and pushing the team up to steps 3, 4, and, if appropriate, 5!

Specifically, this process will require you to facilitate very specific changes across four dimensions. Let's have a look.

PEOPLE, PROCESS, CULTURE, PROFIT

It's not enough for you, as a leader, to make general statements like, "Our organization needs to change," or "We need to make AI more of a priority in marketing." You will need to lead the shift from hand-curated marketing to machine-led marketing across four specific dimensions: people, process, culture, and profit ([figure 24](#)). Here's an overview of the shift you will need to make in each of those dimensions.

		BEFORE	AFTER
PEOPLE		Brand Marketers & Digital Marketers	Data Scientists, Brand Managers, Digital Marketers, Technologists
PROCESS		Single campaign; long-term annual planning; the "big idea"	Agile projects; many "little ideas"; long-term strategic outcomes. Let the machines run and test the campaigns
CULTURE		Decisions are driven by intuition, experience, considered debate, Friday meetings with spreadsheets, and being right the first time	Test & learn; speed is important; generate reasonable hypotheses & test them fast; data-driven decisions; continuous improvement; "data beats opinion"
PROFIT		Bigger margins, lower volume	Smaller margins, higher volume

FIGURE 24. People, process, culture, profit

People

Energizing the AI Marketing Canvas will require a new kind of marketing team with new skill sets and philosophies, different from that of a traditional marketing team.

The first big people step in this process is to appoint an **AI marketing champion**. The champion's job is to oversee all of your AI and machine-learning marketing initiatives and function as a translator between marketing and data science. (Reminder: See [chapter 10](#) for a complete list of the champion's responsibilities.) The best time to appoint this person typically is when you are beginning to think about moving from step 2, working with external partners and vendors, to step 3, when you are taking the first steps to insource more and more of the capabilities needed to perform AI-powered marketing in-house. The qualities you are looking for in an AI marketing champion are as follows:

- **Project management expertise and relevant prior experience.** Although you may want to seek someone who is well credentialed, don't get hung up on requiring certifications such as project management professional, or PMP. Some of the best and most effective project managers we know do not have this designation.
- **Comfort on both sides of the fence.** You want someone who is well-versed not only in data and technology but also in marketing and creative skills—and who speaks both “languages” fluently.
- **Excellent communication skills.** The person should be proactive about communicating not only to the team but also to you.
- **Proven ability to be a self-starter.** The whole purpose of putting someone in this role is so you don't have to micromanage them. Look for a *proven* self-starter who will embrace this assignment with enthusiasm.
- **Natural collaborative skills.** This person likely will be the one you'll work with to hash out first-draft plans, and good collaboration fosters synergy and creativity.
- **Relationship-building skills.** The champion will be the one tasked with getting people across functions to *do* the things on the plan, so they need to be someone who knows how to nurture those relationships and can charm people to do things that may not appear to be directly in their best interest.
- **Agile friendliness.** You want someone who has a sense of urgency and a reputation for delivering fast, because the success of these initiatives hinges on the need for speed. This person needs to think in terms of driving progress weekly, or even daily—not monthly or, heaven forbid, yearly.
- **Persistence.** You need someone who can forge ahead in the face of challenges and obstacles without getting discouraged or giving up, because change of this magnitude will be *hard*.

In this “marketing technologist” role, the champion will act as an advocate for all of your AI and machine-learning marketing efforts, and they will work with internal staff to reinforce how important these initiatives are to you and the firm. That means you must always have the

champion's back; you must consistently and publicly support this person in everything they do. If there are missteps or doubts, you resolve them privately. The organization must accept this person as your proxy. If you cast doubt or aspersions on their abilities, two things may happen: in the best-case scenario, people will disengage and the champion won't be able to get anything done without involving you in every request (exactly what you *don't* want), and in the worst case, they will infer that the AI and marketing transition is just not that important to you.

So give your champion airtime in your weekly team meetings, and showcase them in your all-hands-on-deck meetings, in company newsletters, and at company off-sites. Do everything you can to signal to the organization that this person is leading your number-one most mission-critical priority for the future! As important as the AI marketing champion is—and we cannot emphasize that enough—you and the champion alone cannot accomplish this shift. Your whole team will need to be “in the boat” together with you.

As Google's Schmidt and Pichai did, you will need to broadly communicate the new focus on AI and get everyone on board and rowing in the same direction. Dedicating an all-hands-on-deck meeting to this announcement is a good idea. You can also announce your champion at that time too! Next, carve out some budget to send people to as much training as they can absorb; it's an investment that will pay big dividends in the future as you work your way up and across the steps of the AI Marketing Canvas. Consider bringing in an expert to talk to your team about AI at an upcoming off-site, and/or having the entire team read a book or watch a YouTube video each month about AI in marketing. Also consider including an aspect of AI in your employee evaluations. Most quarterly or annual evaluations already have a dimension around learning and development that measures how much an employee is growing their skill set. Tell your team that you'll be evaluating their growth in AI as part of this dimension. We even know of a marketing leader who has established an “AI Star of the Quarter” award for her team, honoring the staffer each quarter who has made the greatest strides in AI. In short, you must signal in all your communications that making progress on the AI Marketing Canvas is a high priority for you!

Beyond your current staff, you will also need to begin screening prospective new team members for their knowledge and capabilities in data, computer science, and AI and machine learning. In fact, it's our position

that, from here on out, every new person you hire needs to come in with some existing machine-learning competence. We know that sounds extreme. But if you really believe this is the future—and by this point, we hope we’ve convinced you that it is—then the sooner your entire team is fluent in AI and machine learning, the better and faster you will get to that future state.

By the way, most MBA students in our classes now are learning what AI is and how it can be applied to marketing. You’d be surprised how many newly minted MBAs can work in Python and R to build machine-learning models!

Internal transfers are another opportunity to quickly add expertise in AI and machine learning to your marketing team. For example, is there someone on your firm’s data science team who might be interested in a marketing role? In the past, you may have given them a hard pass for lack of marketing experience. Now, if there is someone on the data science side who wants to jump, and if they have strong data and computer science skills (with good communication skills a plus), giving them a chance to join your team could be a good move for both of you.

Now that you’ve communicated that the shift to AI and machine-learning marketing is your priority, named a champion, started to train your marketing team, and started selecting new hires and transfers according to their skills in machine learning, the next step is to get your team to start working in a different way with new processes.

Process

Marketing with AI requires a process more like software development than like traditional long-term campaign planning. Traditional marketing, at least before the advent of digital marketing, was about conducting extensive primary research and planning every detail before launching a campaign. If a marketing campaign involved buying TV ads during the Super Bowl, the stress levels were even higher. The long-term planning was also reflected in new product innovation and pricing. Until recently, it was not uncommon for marketing teams to spend up to a year planning before executing major initiatives.

Digital marketing introduced the idea of rapid experimentation. The medium was conducive because it was both cheap and fast to conduct experiments online. For the first time, you could now change your creative,

your offer, your targeting, and your media placement during the course of a single day—or even a single hour—to optimize your results. Accordingly, marketing began to shift from a researching, planning, and debating discipline to a test-and-learn discipline. With digital marketing, instead of having to debate the right answer, your job becomes to generate reasonable hypotheses, quickly test them, expand on the approaches that work better, and pull back on the approaches that work less well. In our experience, most marketing teams now are increasingly fluent and comfortable with this approach, though most often it involves a single marketing moment, such as acquisition, in which the team rapidly iterates to find the most new customers at the lowest possible cost per acquisition. This is known as lower-funnel marketing. In other areas, such as brand marketing, many teams continue to use the traditional quarterly or annual approach, with some pretesting, conference room debate, and decision making. This is known as upper-funnel marketing.

So what is the best *process* for AI-powered marketing? AI has taken the experimentation mindset that began with digital marketing even further. For example, instead of meeting every morning to review the responses to your campaign and decide on how to revise and update it, with AI in place, the machine just runs in the background and updates itself constantly, making continuous optimizations instead of episodic decisions. This process has the potential to further improve your marketing results because you are more frequently running the optimal right message to the right person, at the right time, in the right place.

This sentiment is also reflected in the following quotation from Katherine Johnson, director of emerging technologies at IT solutions provider Trace3, reacting to a question about companies understanding the process necessary to bring AI into the enterprise: “They don’t! I think [companies] form a lot of committees on the best way to bring [AI] in, and then it is indecision by committee, as opposed to looking for those quick wins. . . . Companies tend to look for areas of pain instead of areas of gain. And [areas of gain are] key to [AI] success. Don’t try to fix something that is a huge area of pain; start with the areas of gain.”⁹

The AI Marketing Canvas suggests a lot of rapid experiments to learn quickly about customers. You’ll want to focus on two main things:

- Developing an Agile marketing process similar to software development
- Cultivating a multidisciplinary team of marketers, vendors, data scientists, and IT professionals

The first step is to replace quarterly initiatives with Agile sprints (which we previously described in [chapter 9](#)). For example, a company we have worked with runs two Agile sprints at the same time every two weeks. One sprint designs a new marketing initiative, and another one tests the initiative designed in the previous sprint. The members of each sprint team present the results from their work every second Monday at a company-wide town hall. The company also has a review committee that ensures that the AI and machine learning follow proper and consistent principles. Any employee can propose a marketing sprint. The review committee evaluates the priority of the suggestion for the firm, and then, if it approves, puts the suggestion for design and testing in the Agile-sprint pipeline. This process of rapid and constant experimentation allows firms to quickly obtain feedback from customers and build on quick wins. As these sprints and quick wins culminate, the firm changes its marketing process to be driven more by data and customer insight.

Again, your champion will be immensely helpful to you and your team here. A skilled and carefully selected champion will already be familiar with this evolved approach to process, and will help you apply it in a standardized and scalable way across the team as you implement more and more AI-powered marketing.

CALLOUT

The Digitized Marketing Operating Process Model

We spoke with marketing expert John Stauffer, chief strategy officer at Merkle Americas, who shared his thoughts about the process required to power AI-driven marketing. Here is what he had to say.

As you transition to Agile, AI-driven marketing processes, success hinges not just on adopting new methodologies like sprints but also on ensuring your underlying operational engine is fit for purpose. This engine is your marketing operating model (MOM)—the comprehensive blueprint defining your team structures, capabilities, core workflows, data flows, and technology integrations that connect day-to-day execution back to your overarching strategy.

THE HIDDEN BARRIER: WHY AI STRUGGLES WITHOUT A MODERN MOM

Many organizations invest heavily in AI tools and possess rich data assets yet struggle to see significant return on investment (ROI).¹⁰ Often, the culprit is a fragmented, nondigitized MOM. Consider if this sounds familiar:

- Strategic goals (like increasing margin-based ROI) exist in static PDFs or decks, unreadable by automation tools.

- Customer segmentation logic is scattered across customer relationship management (CRM) exports, media-planning tools, and email chains.
- Campaign briefs and creative asset approvals involve manual handoffs and quarterly review cycles with agencies.
- Crucial customer data—like webinar attendance, support interactions, buying history, or specific product interests—resides in disconnected silos (CRM; customer data platform, or CDP; service clouds; or e-commerce platforms).

In such environments, even sophisticated AI lacks the unified context and real-time feedback loops needed to learn effectively. It cannot autonomously optimize campaigns, personalize messaging across the entire customer journey, or accurately recommend the next best action because it can't "see" the whole picture or understand the *why* behind the data.

LEARNING FROM SUPPLY CHAIN MANAGEMENT: USING PROCESS MINING TO DIAGNOSE YOUR MOM

How can you identify these hidden inefficiencies in your own marketing workflows? Consider borrowing a technique transformative in supply chain management: process mining. By analyzing event logs from your existing systems (CRM, marketing automation, etc.), process-mining tools can automatically visualize how your marketing processes actually run day to day, revealing bottlenecks, manual work-arounds, and deviations from intended workflows that might be invisible on standard reports. Just as process mining helped manufacturers find weeks-long delays hidden in manual purchase order approvals, it can pinpoint where marketing handoffs stall or where data fails to flow, hindering AI's potential.¹¹

TRANSFORMING A B2B MANUFACTURER'S MARKETING WITH A DIGITIZED MOM

Take the example of a large business-to-business (B2B) industrial solutions provider aiming to cross-sell more effectively to diverse segments such as plant managers and procurement heads. Initially, despite having strategic clarity and AI investments, execution stalled. Its MOM was fragmented: CRM data was separate from support systems and campaign tools, making it impossible to trigger timely, relevant messages based on a unified customer view. Campaign performance was reviewed manually each quarter.

By undertaking the effort to digitize its MOM—mapping workflows, integrating key data systems (connecting strategy documents, campaign tools, CRM, and performance data), and codifying segmentation logic—it created the transparency and connectivity AI needed.

- **What Changed:** AI could now ingest real-time performance feedback, understand which segments responded best to which offers, and automatically recommend or adjust campaigns.

- **The Result:** Campaign iteration cycles shrank from quarters to days or hours. Personalization became precise, targeting different personas with relevant messaging based on their specific interactions and history. The marketing team could finally demonstrate a clear, measurable impact on cross-selling goals and margin-based ROI, fully leveraging their AI investment.

THE PROCESS TAKEAWAY FOR MARKETING LEADERS

Digitizing your process with a MOM isn't merely an IT project; it's a strategic imperative for unlocking the power of AI in marketing. It requires a conscious effort to map, integrate, and

automate the workflows that bridge your strategy and execution. Before you scale your AI initiatives and Agile sprints, critically assess and invest in modernizing your MOM. It's the foundation upon which truly intelligent, adaptive, and high-performing marketing is built.¹²

Culture

Becoming a world-class AI marketing organization requires more than just evolving the people on your marketing team and the processes by which they work. To be successful in the long term, you'll also need to transform the team's mindset and attitude—a shift that will require cultural change. Yet, according to a recent study by Accenture, 55 percent of chief marketing officers say they don't have a culture that inspires innovation or experimentation.¹³

The new culture must be one that embraces data, experimentation, probabilities, and speed—just like the companies we've featured in this book. But where do you start? Answer: Start with what you and your team *value*.

Naturally, you value results and ROI. The difference is that, in an AI marketing organization, you also especially need to value how you *get* to those results. You might value intuition and experience, and those things still matter, but with AI in place you now also need to value data, data models, and the scientific method. Optimally, your culture will become one that uses its intuition and experience to generate a continuous stream of hypotheses, in which all reasonable ones get tested and the data ultimately determines the outcome of the experiment—win, lose, or draw.

Data beats opinion. Encourage your team to experiment and view every marketing problem as a prediction problem in which machine learning can provide a better answer than a human-driven one. A question like “Who should we target?” becomes “What is the highest-probability target for us to engage?” This way of thinking is the hallmark of a culture that sees the world in terms of data and probabilities. One way to help your marketing team start to understand this cultural shift toward thinking in probabilities (“probabilistically”) is to have them all read Annie Duke's excellent book *Thinking in Bets*.¹⁴ Duke is a world champion poker player (poker players see the game in terms of probabilities), and her book does an excellent job of laying out how most of us are used to thinking in terms of success or failure, yes or no, and right or wrong. Think about how many marketing

meetings you've been in recently where those words were used! In reality, the world around us is actually all about gauging probabilities—just like machine learning.

As a marketing leader, you need to continuously challenge and reinforce a culture of data, experimentation, probabilities, and speed by asking questions such as the following:

- Is this opinion, or is there a machine model that suggests this?
- Are we experimenting enough? Should we run more experiments?
- What is the probability of that outcome?
- How can we move faster, reduce cycle times, and try more things?

Marketing organizations that ask these questions will create a culture that can support the shift to a successful AI and machine-learning future.

One cultural issue that often stymies the shift from hand-curated to machine-powered marketing is the feeling across the team that everything revolves around data and computer science, and that creativity, intuition, and experience no longer matter. This can alienate team members and give them a feeling of whiplash: “Wait—now only data matters? I thought marketing was about big ideas and creativity.” To address this problem, get in the habit of responding with, “Yes, and . . .” In this case, the response would be, “Yes, big ideas and creativity still matter, *and* now data, AI, and machine learning matter too.”

Profit

The final dimension you'll need to address—often the one management cares about most—is profit. Traditionally, firms operating in the human-driven model have relied on fewer higher-margin sales to make their revenue goals. A marketer's main goal has been to create a brand that is so strong and has such emotional resonance that consumers are willing to pay a premium for it, well above and beyond the cost of goods.

While that continues to be important, we foresee the possibility that firms in this new AI-driven marketing world may realize smaller unit margins and returns from their campaigns because the personalization is serving up a unique campaign for each individual. If you focus on margin impact only, this seems negative—until you consider that marketing with AI will allow you to launch multiple campaigns at the same time to a lot of customers with minimal cost outlay.

The profit model then switches from large ROIs from a few segment-driven campaigns to smaller ROIs from many automated campaigns, which optimally are personalized to each individual customer through the power of AI and machine learning—thereby shifting the focus from *profit margin* to *total profit*. This will require marketing and finance leaders alike to shift their mindsets. The ROIs or unit margins from traditional campaigns cannot be easily compared to those from AI campaigns. Furthermore, AI campaigns require time to learn, so their initial ROI might be *negative*. The firm will need to have patience while marketing and data science fine-tune the AI machine, allowing time for it to learn and for you to guide the organization through the various steps of the AI Marketing Canvas.

We predict that most firms can create this total profit scenario by mastering steps 1 through 4. However, if your firm commits to the AI Marketing Canvas and builds the right tools, you may be able to open a new profit stream by selling your AI marketing tools to other firms (step 5), just as Unilever and Coca-Cola have done. It may or may not be right for your firm, but it is something to aspire to. Thus the concept of “profit” in a world of strong AI-powered marketing is not just about selling more products and services more quickly. It’s ultimately about expanding the pie *beyond* products or services to monetizing your AI and machine-learning platforms so you can sell them to others too.

As we’ve mentioned previously, this journey is not an easy one. In the next chapter, we’ll provide a guide to an assessment meeting as well as a diagnostic you can use to get things in motion. We’ll also discuss four gaps you’ll likely have to bridge, which will require shifts in the internal culture and mindset.

15

Self-Assessment

“The danger is to cling to comfort and custom at a time when events demand breaking away from both.”

—Geoffrey Moore, professor and author of *Crossing the Chasm*¹

Now, with a sense of the transition you will have to make when it comes to people, process, culture, and profit, it’s time to get your team in a room and really get started. That’s enough researching, thinking, and reading (the rest of this book excepted). It’s time to take action.

THE AI-IN-MARKETING ASSESSMENT MEETING

Start by scheduling a ninety-minute AI-in-marketing assessment meeting with your immediate marketing team. Following are roles you should include:

- Your immediate marketing core team leaders
- Your marketing operations leaders
- Your data analysis leaders
- Your representative from the chief information officer’s team
- Your representative from the chief financial officer’s team (i.e., your finance partner)
- Your representative from the project management office or project manager

The purpose of this meeting is to agree on exactly which step of the AI Marketing Canvas you are on, what you need to do to move to the next step, who will own that effort, and on what time horizon. To help guide your discussion in this assessment meeting, we’ve developed a quiz to use as a diagnostic tool. You also can use it to guide the discussion in cross-functional team meetings with questions like “Where are we at?” and “What do we need to do here?”

One method we like is for the team leader to distribute the quiz to each team member in advance. Collect the results, and compute the average score and range for each item. Then create some slides you can project on

screen, and refer to them as you talk through each diagnostic item together. Having hung in there with us this far, you will find that much of this looks familiar. That's OK. However, it'll likely be your team's first exposure to these concepts.

The set of forty-one items in this diagnostic need not be reviewed at *every* meeting. They are discussion starters meant to help you start to explore and plan your journey toward AI. The key items are questions 6 and 7, where we ask whether the data covers sufficient customers over enough time to reliably develop algorithms and test their efficacy. If your organization is not currently focused on customers—"customer-centric," as Wharton's Peter Fader calls it—then personalizing customer experiences with AI probably isn't right for you at this time.

THE AI AND MACHINE-LEARNING DIAGNOSTIC TOOL

Given your understanding of your organization's strategy, select your level of agreement with the following statements using a five-point scale, in which 1 means you strongly disagree and 5 means you strongly agree.

1. Long-term customer relationships are a strategic priority for our firm.
2. Developing data-driven customer insights is a priority for our firm.
3. Our customers prefer that we provide products that are personalized to their preferences.
4. Our customers only prefer low prices.
5. Our firm faces competition from technology platforms (e.g., Google, Amazon, Facebook, Apple, Microsoft, or others).

Step 1: Foundation

6. Please indicate on a scale of 0 to 100 percent the level of first-party data (i.e., data you directly collect about individuals' actions that can be attributed to them) you collect for prospects.
7. Please indicate on a scale of 0 to 100 percent the level of first-party data (i.e., data you directly collect about individuals' actions that can be attributed to them) you collect for customers about
 - Their transactions with you
 - Their communications with other customers (i.e., reviews, social media posts, etc.)

Given your understanding of your organization's data structures, please state your level of agreement with the following statements using a five-point scale, in which 1 means you strongly disagree and 5 means you strongly agree.

8. Our database can identify each customer's transactions with the firm.
9. Our database can identify each of the firm's actions directed to a customer.
10. Our database can identify each prospect's transactions with the firm.

11. Our database can identify each of the firm's actions directed to a prospect.
12. Our database can easily access information about customers.
13. Our database can easily access information about prospects.
14. Our firm tracks customer actions over time.
15. Our firm tracks prospects' interactions with the firm over time.

Step 2: Experimentation

Please respond yes or no to the following statement:

16. We expect to conduct experiments with AI solutions from third-party vendors that personalize our interactions with at least one customer relationship moment (i.e., acquisition, retention, growth, or advocacy).

If the response to item 16 is yes, please state your level of agreement with the following statements (in reference to the experiments identified in item 16) using a five-point scale, in which 1 means you strongly disagree and 5 means you strongly agree.

17. We have identified a vendor to develop AI systems that can be tested in the experiments.
18. We have allocated a budget to conduct the experiments.
19. We have identified metrics to evaluate the performance of the experiments.
20. We have approval for running more than one cycle of the experiments.

Step 3: Expansion

Please respond yes or no to the following three statements:

21. We have conducted experiments with AI solutions from third-party vendors that personalize our interactions with at least one customer relationship moment (i.e., acquisition, retention, growth, or advocacy).
22. We anticipate developing AI-based systems that personalize more aspects of the customer relationship moment that was tested in item 21.
23. We anticipate developing AI-based systems that personalize a customer relationship moment beyond the one that was tested in item 21.

If you responded yes to item 21 and to either item 22 or 23, please select your level of agreement with the following statements using a five-point scale, in which 1 means you strongly disagree and 5 means you strongly agree:

24. We have identified an AI marketing champion: an individual responsible for leading the AI marketing initiatives in the firm.
25. We are investing in talent to develop AI marketing capabilities in-house.
26. We have compiled a summary of the results from AI experiments to present to top management.

- 27. We are developing a budget for building AI marketing capabilities across all customer relationship moments.
- 28. We are refining the AI models on the basis of feedback from the experiments.
- 29. We have a cross-functional team of C-level executives collaborating to develop AI marketing capabilities.
- 30. We are developing an Agile methodology to conduct multiple AI marketing experiments.
- 31. We are developing an Agile methodology to track the performance of AI marketing experiments.
- 32. We are developing an Agile methodology for conducting marketing experiments quickly, with no experiment lasting longer than one month.

Step 4: Transformation

Please respond yes or no to the following two statements:

- 33. We have developed AI-based systems that personalize one or more customer relationship moments.
- 34. We anticipate using AI to personalize all moments of the customer relationship (acquisition, retention, growth, and advocacy).

If you answered yes to items 33 and 34, please indicate your level of agreement with the following statements using a five-point scale, in which 1 means you strongly disagree and 5 means you strongly agree:

- 35. We are tracking outcomes from our AI and machine-learning experiments so we can prepare a solid business case for top management to fund additional AI and machine learning for marketing initiatives.
- 36. Our business case will recommend building an AI marketing group in-house.
- 37. Our business case will recommend buying an AI marketing firm.
- 38. We have identified areas where external vendor solutions are not sufficient to personalize customer relationship moments.

Step 5: Monetization

Please indicate your level of agreement with the following statements using a five-point scale, in which 1 means you strongly disagree and 5 means you strongly agree:

- 39. We are actively engaged in discussions to develop a new revenue stream that leverages our capabilities in AI marketing from existing customers.
- 40. We are actively engaged in discussions to develop a new revenue stream that leverages our capabilities in AI marketing from new customers.
- 41. We are actively engaged in discussions to leverage our AI marketing capabilities to develop a network-based business model that connects our different stakeholders.

This set of statements should provide the basis of robust discussion for your team. It's OK if you don't march through every single item in order.

But during the course of the discussion, it should become clear at what point your scores start to decline from all 4s and 5s to 1s and 2s. For instance, if you answer an average of 4.8 for the step 1 items, and 4.2 for the step 2 items, but only 2.6 for the step 3 items, that point of drop-off means you are currently in step 2 of the AI Marketing Canvas and need to plan to move into step 3. You can refer back to [chapter 10](#) of this book, in which we discuss how to build your to-do list for step 3.

Some teams we know measure a diagnostic like this one twice a year to track their overall progress toward becoming AI-powered marketing organizations. Knowing this, you can tell your chief executive officer or board of directors about your strategic plan for AI in marketing and your progress against it: “We began the year at step 2, and our goal is to be solidly at step 3 by the end of this year.” In this way, “becoming better at AI in marketing” is no longer something fuzzy and abstract; it’s a goal that can be measured using the AI Marketing Canvas and this diagnostic.

THE FOUR GAPS

As you think about this diagnostic quiz and move up the AI Marketing Canvas, we want to alert you to four gaps you’ll likely have to bridge, which will require shifts in the internal culture and mindset ([figure 25](#)). In deference to Geoffrey Moore, we don’t want to exactly call them “chasms.” But in a loose sense of the term, you can think of them in that way. Imagine that between each step there’s a gap, a chasm, a barrier you will need to overcome in order to move to the next step. These natural separations are in fact what create and define the five discrete steps, rather than all the steps oozing or blending from one into the next. The gaps are hard lines between the steps. So once you’ve identified which step you are on in your assessment meeting, we’d like you to think about the gap you must overcome to get to the next step. Gap crossing is hard work, and the inability to do so successfully has stalled many marketing teams’ efforts to scale AI.

	GAP TYPE	KEY QUESTIONS
STEP 5 MONETIZATION 	 Business Model	Monetize offerings or not? (CEO/Board level discussion)
STEP 4 TRANSFORMATION 	 World-class talent/capabilities	Build capabilities in house or buy a company? (CMO/CIO/CFO discussion)
STEP 3 EXPANSION 	 Process/Culture	Change management needed for people, processes & culture (CMO + Data Team)
STEP 2 EXPERIMENTATION 	 Mindset/Priorities	How will we move from human-driven to data-driven marketing? (CMO)
STEP 1 FOUNDATION 		

FIGURE 25. The four gaps

Let's dive a little deeper into each of these gaps. The first gap, between steps 1 and 2, is between human-driven and data-driven marketing. To close this gap, your firm must invest resources in shoring up its digital foundation. If your firm is still in the midst of this process, use what you learn from your vendor-driven AI marketing efforts to make a case for what is possible now, what is coming, and why management should make it a priority to complete this process.

The second gap occurs between steps 2 and 3 and largely has to do with anticipating cultural changes and finding the right talent to move forward.

In between steps 3 and 4, there's a gap where you are grappling with the decision of whether to begin building models in-house or buy and integrate another company into your firm. This is a strategic decision, the implications of which call for a thorough study by the strategy committee

and the board of directors. (As a starting point, the decision matrix in [chapter 11](#) and [figure 19](#) could prove useful!)

Finally, a fourth gap occurs between steps 4 and 5, where you decide whether it makes sense to monetize the systems you've created to create additional revenue for the firm. This one is tough and could legitimately be considered a chasm rather than a gap. Not every firm can or should aspire to step 5 because it will very likely involve changing the company (as was the case for Google).

All firms who want to win in this new AI arena have faced or will face these challenges. The key is to look for the challenges, anticipate them, and craft a plan for overcoming them. In all cases, these are strategic discussions you will need to have—which go beyond tactical, operational, or executional questions—so it's critically important to involve the right stakeholders. Especially as you deliberate about the gaps between steps 4 and 5, C-level involvement becomes increasingly important.

Now that you've had your assessment meeting and are aware of the four gaps, it's time for you to create an AI implementation plan for marketing in your organization.

The good news is that you no longer need to start from scratch. You are now privy to the patterns, paths, and methods that leading brands have used to supercharge their customer relationship moments with AI and machine learning.

More important, you have now mastered the AI Marketing Canvas, a five-step tool you can use to guide strategic choices as your firm embraces new ways to optimize people, process, culture, and profit in service of creating more powerful and enduring one-to-one customer relationships.

In the next and final chapter, you will learn what you need to do *personally* as a marketing professional to ensure that you not only survive but also thrive in this new world of modern marketing.

16

A Call to Action

“The best investment you can make is an investment in yourself.”

—Jim Lecinski’s frequent advice to his team while at Google

The primary purpose of this book is to assist you in your role as a marketing leader by providing you with a solid strategic framework you can use to supercharge each moment in your customer’s decision journey and succeed in this new world of AI and machine learning in marketing—no matter where you’re starting from. We also hope our plain-language approach to explaining the key computer science and data concepts of AI and machine learning will allow you to better understand what you’re reading in the trades and lead to more informed conversations with vendors, staff, and management alike.

Before we go, we want to acknowledge how much is at stake *personally* for you and your career in this new world—not just as a marketer but also as an individual who aims to build a successful career in this industry and in the new machine-assisted, data-first world of marketing.

We get it. We know transforming to an AI-powered and ultimately fully AI-first marketing organization is not easy. Over half (54 percent) of marketers feel overwhelmed by the prospect of implementing AI into their workflows, according to October 2024 data from HubSpot. And 54 percent of marketers are concerned that using AI in marketing will lead to a loss of creativity and human touch, per January 2025 data from Ascend2.¹ But AI is not optional. You can and must master it!

Here is what four industry leaders whose thinking we respect have told us during interviews:

“It is imperative marketers become more comfortable, knowledgeable, and well-versed in the area of technology. Achieving credibility with internal IT leads and important technology partners—not to mention advancing in their careers—depends on it. Young marketers should enroll in continuing education classes that help build their competencies in this important area and seek exposure to technology-related projects within their organizations. As they progress in their careers, more tenured marketers should nurture important IT relationships internally and pursue informal

mentorships from outside the organization (from subject matter experts, technology thought leaders, or strategic vendor relationships).”

—Mitch Duckler, managing partner, FullSurge, and author of *The Future-Ready Brand*²

“To prepare for the future, the best thing that marketing leaders can do today is find data scientists and ask them questions. If you have these people in your organization, then consider yourself lucky. Make them your best friends. See if you can recruit one onto your team. I’ve done this, and it has made all the difference. I now have a go-to person to explore all the what-if questions that come up on a daily basis.

If you don’t have data scientists in your organization, go out and meet some. Attend a local meetup. Hang around the engineering department of your local university. Offer someone an internship. Join some webinars. But make it a priority. Then, once you’ve established relationships, ask those questions. They don’t have to be specific to your company or your marketing plans. See what trends these people are paying attention to, and throw out some hypotheticals. The answers will be illuminating and help get you comfortable with the language of AI and machine learning.”

—Aaron Goldman, chief marketing officer, Mediaocean, and author of *Everything I Know about Marketing I Learned from Google*³

“With machines that can experiment with tactical marketing execution far more speedily, systematically, and consistently than any human, the marketers who want to make the best use of these machines will require frameworks (and mindsets) that support and encourage iterative learning and experimentation. The leverage here is huge; if machines can execute tactical marketing experimentation, us humans get to focus on strategic marketing experimentation, made possible by the enormous reduction in operational costs associated with the tactical piece.

When it comes to data assimilation, mathematics, and repetition, the machines are already superior, but in areas requiring disparate skills—handling ambiguity, empathy, creativity, and strategy—humans will have the edge for some time. The great gains will be in how these two complementary processing approaches are combined.”

—Konrad Feldman, founder and chief executive officer, Quantcast⁴

“Get laser-focused on your consumer. Know what makes them tick and what experiences matter to them. Learn how to connect with them in new and meaningful ways. We’re going back to the future a bit now. Thanks to AI, we can focus more on smart strategies and breakthrough creative.”

—Kristen D’Arcy, chief marketing officer, True Religion Brand Jeans⁵

Here’s our take: to be a successful marketer in the coming years, you must decide now whether you will engage and become an expert AI marketer, or sit on the sidelines and watch the “AI bus” pass you by or, worse, run you over.

You’ve likely seen this movie before. Remember, you had to decide whether to become a data marketer or just stay in the realm of intuition, and then decide whether to become a digital-and social-media-savvy marketer or just stay in the realm of traditional marketing. Most marketing job descriptions now list data, digital, and social as a requirement, and you’ve also probably noticed that those who jumped in and embraced those things early now have a leg up. The difference is that this time, the changes are happening at ten-plus times the velocity of those that came earlier.

As Jenifer Berman—then chief marketing officer of Insider Inc. (parent company of Business Insider) and now a managing director at Goldman Sachs—previously told an audience at the Consumer Electronics Show in Las Vegas, “Whether we’re talking about 5G or AI, or privacy issues, it is about helping the navigating change piece of it. And being an organization that needs to be at the front of that, you have to be able to walk the walk yourself, right? You have to be an organization that can iterate really quickly and move quickly.”⁶

That’s why we believe that fluency and experience with AI in marketing (i.e., leading, developing, and implementing AI Marketing Canvas-based programs like the ones we’ve described in this book) will become part of your job sooner rather than later. What you decide to do about your knowledge of AI and machine learning for marketing today will impact what you’re able to achieve in the years to come, along with your ability to weather crises and respond to the changes in customer behavior that occur during those times.

As Jim is fond of saying, riffing off the title of his book *ZMOT: Winning the Zero Moment of Truth*, this is your personal AI moment of truth (AIMOT). Your AIMOT is happening *right now*. There are any number of things you could do to address your AIMOT, but the most important and powerful thing you can do right now is look for ways to experience how AI and machine learning work, beyond just reading about them—this book included! In fact, if you take nothing else away from this chapter (so far), let it be the impetus to engage and take a first step by familiarizing yourself with these tools.

You can’t learn to drive a car just by reading the manual. At some point, you have to actually put your hands on the wheel. It’s the same for us as marketers; we know it’s critical to *experience* the tools in our marketing tool kits. Because the application of AI and machine learning in marketing is still so nascent, the time invested now to really understand how it works will pay you *big* dividends later.

The good news is that there’s an easy way to get your hands in the dirt right now in the form of Google’s Teachable Machine tool. Teachable Machine is a “web-based tool that makes creating machine learning models fast, easy, and accessible to everyone.”⁷ The tool allows you to actually train a computer to recognize your own images, sounds, and poses, resulting in a functional machine-learning model, and no special expertise

or coding is required. One exercise you can do—the one we use in our executive education classes—is build a simple visual-recognition machine-learning model that can distinguish between a car and a truck. The best part is that this tool is free, is web-based, and requires no software or installation.

You can experience machine learning firsthand by playing the kid’s game Rock, Paper, Scissors. Let that sink in. There’s a *children’s game* that involves building a machine-learning model to recognize pictures of hand shapes. You’ve heard of “digital natives.” Enter “machine-learning natives,” who will grow up to become the next wave of marketers. The Rock, Paper, Scissors and other exercises were developed by Dale Lane, using application protocol interfaces from IBM Watson. It’s an awesome web-based experience designed for use in the classroom by schools and volunteer-run coding groups for children, but it’s a great way to introduce machine learning to anyone.

Navigate to <https://machinelearningforkids.co.uk>, and select the Rock, Paper, Scissors exercise under “Worksheets.” Download the step-by-step how-to-play guide and begin! The exercise takes just a few hours, and by the end you will have trained your very own model. More important, you will not only have gained valuable firsthand experience about how machine learning works but also moved from just *reading* about AI and machine learning to actually having *done* it. That’s a huge step toward preparing yourself for the future of marketing.

In other words, start by getting started—personally.

USE AI TO NURTURE AND ENHANCE HUMANITY

There’s one more aspect of AI we want to touch on before we wrap things up. That is the huge potential for you to use AI and machine learning to allow your brand to participate in a way that nurtures people and enhances your brand’s overall *humanity*.

JPMorgan Chase is already using AI to do this. At the 2019 Web Summit in Lisbon, Chase’s Kristin Lemkau—then chief marketing officer, now chief executive officer of wealth management—said, “I believe deeply to my bones that the most important development in the history of marketing is machine learning.” Under her guidance, Chase is using AI to discover ways to serve customers with ads that “feel like a choice not an ad,” and she

expects those more human-sounding ads to continue to differentiate Chase and drive business growth.⁸

Consider Starbucks's mission statement: "To inspire and nurture the human spirit—one person, one cup and one neighborhood at a time." Perhaps more telling, however, are its stated values, particularly this one: "We are performance driven, through the lens of humanity."⁹ That's why there is so much focus on using AI to free up its baristas to spend more time making connections with customers.

It doesn't stop there. Kevin Johnson, former chief executive officer of Starbucks, was introduced by a friend to renowned neuroscientist Richard Davidson, a professor of psychology and psychiatry at the University of Wisconsin–Madison and founder and director of the Center for Healthy Minds. Among their many conversations about helping Starbucks partners find ways to more deeply connect with customers, Johnson and Davidson have been dreaming about another idea: What if customers also were able to change how they interact with one another in the stores?¹⁰ It's a big idea that starts with using AI to help facilitate deeper, more authentic, and ultimately more rewarding connections with the human beings who are experiencing your products and services—and a refusal to capitulate to the fearmongers who insist that the future of AI in marketing can only result in a cold, quasi-personal, robot-driven, *Matrix*-like future. Marketing technology veteran (Google, Instagram, and YouTube) and consultant Dr. Eric Solomon put it this way in a 2020 article for [Entrepreneur.com](https://www.entrepreneur.com): "The reality is that marketers have long understood the need to build and foster meaningful emotional connections between businesses and customers. The quality of these connections helps to define the world's most iconic brands. But as technology, data, and metrics have moved to the forefront of corporate discourse, the context in which to establish these emotional relationships has changed. The net result of the connected world is that people are producing more signals about who they are, what they talk about, and the things they like."¹¹

So the temptation—one we understand all too well—is to move away from individuals and look for human patterns in the tangled web of data. There is value in doing that, of course. We're not saying that advertising is pointless, or that targeted marketing doesn't work. But we are saying that you can't confuse those tools for what it means to build relationships with humans.

So, how do businesses do the more important work? First, they need to acknowledge that there are living, feeling human beings at the beginning and end of every transaction—and that a shift in thinking must be employed to really build emotional connections with their customers.

We urge you to become that marketing leader whose obsession is to find ways to use AI and machine learning not only to personalize the customer journey at every juncture but also to add humanity back into your brand wherever possible.

One more thing: Richard Davidson, director of Center for Healthy Minds, said, “I really believe it’s possible to cultivate and scale well-being. Kevin [Starbucks’s chief executive officer] totally gets this. It’s one of the things I love about him.”¹²

Can one company doubling down on human connection make a difference?

“It can change the world,” Davidson said. “It can totally change the world.”¹³

OUR CLOSING THOUGHT

We hope this book has inspired you to move quickly and strategically into this world of AI and machine learning for marketing, and to get down to business using AI to supercharge all your customer relationship moments by following the five sequential steps of our road-tested AI Marketing Canvas, which we’ll reprise for you one final time in [figure 26](#).

		AI ACQUISITION	AI RETENTION	AI GROWTH	AI ADVOCACY
STEP 5 MONETIZATION 	AI to drive significant new revenue streams and/or new business models. Serve external customers as a platform.				
STEP 4 TRANSFORMATION 	AI to automate complete sets of marketing activities across the full customer journey. Strong in-house competency required - "Build or buy."				
STEP 3 EXPANSION 	AI across a broader set of marketing activities. AI 'Marketing Champion' named. Efforts coordinated and in-house capabilities begin to develop.				
STEP 2 EXPERIMENTATION 	AI-powered tools from third parties and vendors to get some quick learnings/ wins at individual moments in the customer journey. "A thousand flowers..."				
STEP 1 FOUNDATION 	Prerequisite for doing any AI or machine learning.				

FIGURE 26. Overview of the AI Marketing Canvas

With this five-step AI Marketing Canvas, we've shown you a strategic path forward, rooted in proven marketing principles and brought to life by real-world examples. Now it's your move. Go win your AI customer relationship moments and drive extraordinary results for your firm, your team, and yourself during this AI moment of truth. We're cheering you on, and we look forward to hearing about your AI marketing success stories and sharing them in future editions of this book, in our keynote talks, and in our MBA classrooms. Full speed ahead, folks!

Please follow us on LinkedIn, and comment on our posts using the hashtag #AIMarketingCanvas.

Jim Lecinski: www.linkedin.com/in/jimlecinski/

Raj Venkatesan: www.linkedin.com/in/profv/

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Notes

Chapter 1

1. “Q2 2025 Earnings Call,” Estée Lauder Companies, Inc., transcript from February 4, 2025, call, <https://media.elcompanies.com/files/e/estee-lauder-companies/universal/investors/earnings-and-financials/quarterly-earnings/2025/q2/q2-fiscal-2025-earnings-conference-call-transcript.pdf>.
2. Martin Moodie, “Estée Lauder Companies Leader Stéphane de La Faverie Spells Out a Reimagined Future,” Moodie Davitt Report, February 5, 2025, <https://moodiedavittreport.com/the-biggest-transformation-in-our-history-estee-lauder-companies-leader-stephane-de-la-faverie-spells-out-a-reimagined-future-amid-travel-retail-changes>; Thomson Reuters StreetEvents, “Q2 2025 Estée Lauder Companies, Inc., Earnings Call,” *Yahoo Finance*, February 5, 2025, <https://finance.yahoo.com/news/q2-2025-estee-lauder-companies-060051554.html>.
3. Chris Kelly, “Estée Lauder Continues Generative AI Push with Adobe Integration,” Marketing Dive, March 12, 2025, <https://www.marketingdive.com/news/estee-lauder-generative-ai-adobe-integration/742129>.
4. Mark Cuban, interviewed by Morgan Brennan, CNBC, March 4, 2024, <https://youtu.be/051eQLCsfEs?si=zyFv6OFPUdU1loXd>.
5. Gartner, “Gartner Survey Reveals over a Quarter of Marketing Organizations Have Limited or No Adoption of GenAI for Marketing Campaigns,” press release, February 18, 2025, <https://www.gartner.com/en/newsroom/press-releases/2025-02-18-gartner-survey-reveals-over-a-quarter-of-marketing-organizations-have-limited-or-no-adoption-of-genai-for-marketing-campaigns>.
6. Peter Adams, “27% of CMOs Remain Reluctant to Adopt Generative AI: Gartner,” Marketing Dive, February 19, 2025, <https://www.marketingdive.com/news/cmos-reluctant-to-adopt-generative-ai-gartner/740332>.

Chapter 3

1. Paul Roetzer, “The Future Is Marketer + Machine,” Marketing Artificial Intelligence Institute, July 17, 2019, accessed November 4, 2019, <https://www.marketing-aiinstitute.com/blog/the-future-is-marketer-machine-maicon-2019-video>.
2. Jacques Bughin et al., “Notes from the AI Frontier: Modeling the Impact of AI on the World Economy,” McKinsey Global Institute, September 4, 2018, <https://www.mckinsey.com/featured-insights/artificial-intelligence/notes-from-the-ai-frontier-modeling-the-impact-of-ai-on-the-world-economy>.

Chapter 4

1. Cade Metz, “DeepMind Can Now Beat Us at Multiplayer Games, Too,” *The New York Times*, May 30, 2019, accessed November 4, 2019, <https://www.nytimes.com/2019/05/30/science/deep-mind-artificial-intelligence.html>.
2. Rajkumar Venkatesan, Jenny Craddock, and Noreen Nagji, *Automation of Marketing Models* (Charlottesville, VA: Darden Business Publishing, 2018).

3. Martin Childs, "John McCarthy: Computer Scientist Known as the Father of AI," *Independent*, November 1, 2011, accessed November 4, 2019, <https://www.independent.co.uk/news/obituaries/john-mccarthy-computer-scientist-known-as-the-father-of-ai-6255307.html>.
4. John McDermott, "R1: An Expert in the Computer Systems Domain," *Proceedings of the First Annual National Conference on Artificial Intelligence* (Menlo Park, CA: AAAI Press, 1980), 269–71, <https://web.archive.org/web/20171116060857/http://aaai.org/Papers/AAAI/1980/AAAI80-076.pdf>.
5. McDermott, "R1: An Expert in the Computer Systems Domain."
6. "AI: 15 Key Moments in the Story of Artificial Intelligence," BBC, accessed November 4, 2019, <https://www.bbc.co.uk/teach/ai-15-key-moments-in-the-story-of-artificial-intelligence/zh77cqt#zcpkj6f>.
7. Joe Osborne, "Google's Tensor Processing Unit Explained: This Is What the Future of Computing Looks Like," TechRadar, August 22, 2016, accessed November 4, 2019, <https://www.techradar.com/news/computing-components/processors/google-s-tensor-processing-unit-explained-this-is-what-the-future-of-computing-looks-like-1326915>.
8. John Markof, "Seeking a Better Way to Find Web Images," *The New York Times*, November 19, 2012, accessed November 4, 2019, <https://www.nytimes.com/2012/11/20/science/for-web-images-creating-new-technology-to-look-and-find.html>; Dave Gershgorin, "The Data That Transformed AI Research—and Possibly the World," *Quartz*, July 26, 2017, accessed November 4, 2019, <https://qz.com/1034972/the-data-that-changed-the-direction-of-ai-research-and-possibly-the-world/>.
9. Muneeb ul Hassan, "AlexNet: ImageNet Classification with Deep Convolutional Neural Networks," *Neurohive*, October 29, 2018, accessed November 4, 2019, <https://neurohive.io/en/popular-networks/alexnet-imagenet-classification-with-deep-convolutional-neural-networks/>.
10. Venkatesan, Craddock, and Nagji, *Automation of Marketing Models*.
11. "What Is a Computer Algorithm? Design, Examples & Optimization," *Study.com*, January 14, 2014, accessed November 4, 2019, <https://study.com/academy/lesson/what-is-a-computer-algorithm-design-examples-optimization.html>.
12. Jason Brownlee, "A Tour of Machine Learning Algorithms," *Machine Learning Mastery*, August 12, 2019, accessed November 4, 2019, <https://machinelearningmastery.com/a-tour-of-machine-learning-algorithms/>.
13. Cassie Kozyrkov, "9 Things You Should Know About TensorFlow," Hackernoon, August 3, 2018, accessed November 4, 2019, <https://hackernoon.com/9-things-you-should-know-about-tensorflow-9cf0a05e4995>.
14. Master Blaster, "Japanese Bakeries Can Now Use a Robocop-Style Bread Recognition Checkout System," SoraNews24, April 12, 2017, accessed November 4, 2019, <https://soranews24.com/2017/04/12/japanese-bakeries-can-now-use-a-robocop-style-bread-recognition-checkout-system/>.
15. Xulei Yang, Zeng Zeng, Sin G. Teo, Li Wang, Vijay Chandrasekhar, and Steven Hoi, "Deep Learning for Practical Image Recognition: Case Study on Kaggle Competitions," *KDD '18: The 24th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining* (New York: ACM, 2018), 923–31, <https://doi.org/10.1145/3219819.3219907>.
16. Ralitsa Golemanova, "The Top 5 Uses of Image Recognition," Imagga Blog, June 6, 2019, accessed November 4, 2019, <https://imagga.com/blog/the-top-5-uses-of-image-recognition/>.
17. Shea Gibbs and Rajkumar Venkatesan, *Have Text, Will Travel: Can Airbnb Use Review Text Data to Optimize Profits?* (Charlottesville, VA: Darden Business Publishing, 2015).
18. George Seif, "The 5 Clustering Algorithms Data Scientists Need to Know," Medium, February 5, 2018, accessed November 4, 2019, <https://towardsdatascience.com/the-5-clustering-algorithms-data-scientists-need-to-know-a36d136ef68>.

19. Chris Nicholson, “A Beginner’s Guide to Neural Networks and Deep Learning,” Pathmind, accessed November 4, 2019, <https://pathmind.com/wiki/neural-network>.
20. Simon Löfwander, “About Artificial Intelligence, Neural Networks & Deep Learning,” Ayima, January 24, 2017, accessed November 4, 2019, <https://www.ayima.com/uk/insights/artificial-intelligence-neural-networks-deep-learning.html>.
21. Shijing Yao, Dapeng Li, and Shawn Chen, “Amenity Detection and Beyond: New Frontiers of Computer Vision at Airbnb,” Medium, July 16, 2019, accessed November 5, 2019, <https://medium.com/airbnb-engineering/amenity-detection-and-beyond-new-frontiers-of-computer-vision-at-airbnb-144a4441b72e>.
22. Shijing Yao, Qiang Zhu, and Phillippe Siclait, “Categorizing Listing Photos at Airbnb,” Medium, May 2, 2018, accessed November 4, 2019, <https://medium.com/airbnb-engineering/categorizing-listing-photos-at-airbnb-f9483f3ab7e3>.
23. Gershgorin, “Data That Transformed AI Research.”
24. Jo Best, “IBM Watson: The Inside Story of How the Jeopardy-Winning Supercomputer Was Born, and What It Wants to Do Next,” TechRepublic, September 9, 2013, accessed November 4, 2019, <https://www.techrepublic.com/article/ibm-watson-the-inside-story-of-how-the-jeopardy-winning-supercomputer-was-born-and-what-it-wants-to-do-next/>.
25. Sean Silverthorne, “Deep Blue Put Out to Digital Stud,” ZDNet, September 24, 1997, accessed November 1, 2019, <https://www.zdnet.com/article/deep-blue-put-out-to-digital-stud/>.
26. Stephen Shankland, “IBM Details Blue Gene Supercomputer,” ZDNet, May 9, 2003, accessed November 1, 2019, <https://www.zdnet.com/article/ibm-details-blue-gene-supercomputer/>.
27. Maris van Sprang, “Watson and Other Impossible Grand Challenges,” IBM, October 20, 2014, accessed November 4, 2019, <https://www.ibm.com/blogs/think/nl-en/2014/10/20/watson-and-other-impossible-grand-challenges/>.
28. Best, “IBM Watson.”
29. Aatash Shah, “Machine Learning vs. Statistics,” KD Nuggets, August 1, 2016, accessed November 4, 2019, <https://www.kdnuggets.com/2016/11/machine-learning-vs-statistics.html>.
30. Larry Wasserman, “Statistics Versus Machine Learning,” Normal Deviate, June 12, 2012, accessed November 4, 2019, <https://normaldeviate.wordpress.com/2012/06/12/statistics-versus-machine-learning-5-2/>.
31. Seif, “5 Clustering Algorithms Data Scientists Need to Know.”
32. Manish Kumar, “Understanding Genetic Algorithms in the Artificial Intelligence Spectrum,” Medium, September 5, 2018, accessed November 4, 2019, <https://medium.com/analytics-vidhya/understanding-genetic-algorithms-in-the-artificial-intelligence-spectrum-7021b7cc25e7>.
33. “Vitamix,” Optimizely, accessed November 4, 2019, <https://www.optimizely.com/customers/vitamix/>.

Chapter 5

1. “Amazon’s New ‘Buy for Me’ Feature Helps Customers Find and Buy Products from Other Brands’ Sites,” About Amazon, Amazon, April 3, 2025, <https://www.aboutamazon.com/news/retail/amazon-shopping-app-buy-for-me-brands>.

Chapter 6

1. Kate Park, “Samsung Bans Use of Generative AI Tools Like ChatGPT After April Internal Data Leak,” *TechCrunch*, May 2, 2023, <https://techcrunch.com/2023/05/02/samsung-bans-use-of-generative-ai-tools-like-chatgpt-after-april-internal-data-leak>.
2. Seiko Okada et al., “D.C. Circuit Denies Copyright to AI Artwork—What Humans Have and Artificial Intelligence Does Not,” *The National Law Review*, March 25, 2025,

<https://natlawreview.com/article/dc-circuit-denies-copyright-ai-artwork-what-humans-have-and-artificial-intelligence>.

3. Kathleen Magramo, “British Engineering Giant Arup Revealed as \$25 Million Deepfake Scam Victim,” *CNN Business*, May 17, 2024, <https://www.cnn.com/2024/05/16/tech/arup-deepfake-scam-loss-hong-kong-intl-hnk/index.html>.

Chapter 7

1. Konrad Feldman, from direct interview by authors, via email, October 2019.
2. Paul Sawers, “YouTube Taps Machine Learning to Serve the Best Contextual Ads for Each User,” *Venture Beat*, September 23, 2019, accessed January 28, 2020, <https://venturebeat.com/2019/09/23/youtube-taps-machine-learning-to-serve-the-best-contextual-ads-for-each-user/>.
3. A. G. Lafley and Roger L. Martin, *Playing to Win: How Strategy Really Works* (Boston: Harvard Business School Publishing, 2013), 3.
4. Alexander Osterwalder, “The Business Model Ontology: A Proposition in a Design Science Approach,” *Research Gate*, January 2004, accessed November 4, 2019, https://www.researchgate.net/publication/33681401_The_Business_Model_Ontology_-_A_Proposition_in_a_Design_Science_Approach.
5. A. Osterwalder and Y. Pigneur, “Business Model Canvas,” via DIY Toolkit, accessed January 28, 2020, <https://diytoolkit.org/tools/business-model-canvas/>; Used by permission with credit: strategyzer.com.

Chapter 8

1. Sunder Madakshira, direct quote to authors via email, July 23, 2020.
2. Bryan Wassel, “Starbucks to Capitalize on Record Loyalty Membership with App Improvements,” *CX Dive*, February 1, 2024, <https://www.customersperiencedive.com/news/starbucks-rewards-loyalty-q3-personalization/706212>.
3. Saleh Alitr, “Starbucks: Analyze-a-Coffee,” *Medium*, July 18, 2019, accessed January 28, 2020, <https://towardsdatascience.com/starbucks-analyze-a-coffee-b4eef811aa4a>.
4. “Starbucks Reports Q4 and Full Year Fiscal 2019 Results,” Starbucks Stories and News, October 30, 2019, accessed November 4, 2019, <https://stories.starbucks.com/press/2019/starbucks-reports-q4-and-full-year-fiscal-2019-results/>.
5. David L. Rogers, *The Digital Transformation Playbook* (New York: Columbia Business School Publishing, 2016).
6. José Antonio Martínez Aguilar, *The Data Advantage* (Seattle: Amazon Digital Services, 2018), 38 (Kindle edition).
7. “The Difference Between First, Second, and Third Party Data and How to Use Them,” ReTargeter, accessed November 1, 2019, <https://retargeter.com/blog/difference-first-second-third-party-data-use/>.
8. Crissi Cupak, “Why Retail Marketers Can’t Dismiss Third-Party Data,” *Digital Commerce 360*, March 19, 2019, accessed January 28, 2020, <https://www.digitalcommerce360.com/2019/03/19/why-retail-marketers-cant-dismiss-thirdparty-data/>.
9. Nicki Franz, “Moving from Analyzing Datasets to Decisions in DPL,” Syncopation Software, July 18, 2017, accessed November 1, 2019, <https://www.syncopation.com/blog/moving-analyzing-datasets-decisions-dpl>.
10. Steven Chabinsky and F. Paul Pittman, “USA: Data Protection 2019,” *ICLG*, March 7, 2019, accessed November 1, 2019, <https://iclg.com/practice-areas/data-protection-laws-and-regulations/usa>.

11. Neil Irwin, "Why Surge Prices Make Us So Mad: What Springsteen, Home Depot and a Nobel Winner Knew," *New York Times*, October 14, 2017, accessed October 7, 2019, <https://www.nytimes.com/2017/10/14/upshot/why-surge-prices-make-us-so-mad-what-springsteen-home-depot-and-a-nobel-winner-know.html>.
12. Robert W. Palmatier and Kelly D. Martin, *The Intelligent Marketer's Guide to Data Privacy: The Impact of Big Data on Customer Trust* (London: Palgrave Macmillan, 2019), 170–78.
13. Chiara Longoni and Luca Cian, "Artificial Intelligence in Utilitarian vs. Hedonic Contexts: The 'Word-of-Machine' Effect," *Journal of Marketing* 86, no. 1 (2022): 9–108; Jack van Honk et al., "Breakdown of Utilitarian Moral Judgement After Basolateral Amygdala Damage," *Proceedings of the National Academy of Sciences* 119, no. 31 (2022): e2119072119; Mustafa Karataş and Keisha M. Cutright, "Thinking About God Increases Acceptance of Artificial Intelligence in Decision-Making," *Proceedings of the National Academy of Sciences* 120, no. 33 (2023): e2218961120; Marie-Pierre Dargnies et al., "Aversion to Hiring Algorithms: Transparency, Gender Profiling, and Self-Confidence," *Management Science* (2024); Noah Castelo et al., "Task-Dependent Algorithm Aversion," *Journal of Marketing Research* 56, no. 5 (2019): 809–25; Cameron Kormylo et al., "Till Tech Do Us Part: Betrayal Aversion and Its Role in Algorithm Use," *Management Science* (2025); Ryan Hamilton et al., "Traveling with Companions: The Social Customer Journey," *Journal of Marketing* 85, no. 1 (2021): 68–92; Felix Holzmeister et al., "Delegation Decisions in Finance," *Management Science* 69, no. 8 (2023): 4828–44; Joshua Conrad Jackson et al., "Exposure to Automation Explains Religious Declines," *Proceedings of the National Academy of Sciences* 120, no. 34 (2023): e2304748120; Sophie J. Nightingale and Hany Farid, "AI-Synthesized Faces Are Indistinguishable from Real Faces and More Trustworthy," *Proceedings of the National Academy of Sciences* 119, no. 8 (2022): e2120481119; Scott Schanke et al., "Digital Lyrebirds: Experimental Evidence That Voice-Based Deep Fakes Influence Trust," *Management Science* (2024); and Ralf H. J. M. Kurvers et al., "Automating Hybrid Collective Intelligence in Open-Ended Medical Diagnostics," *Proceedings of the National Academy of Sciences* 120, no. 34 (2023): e2221473120.
14. Deborah O'Neill and Nick Harrison, "If Your Company Isn't Good at Analytics, It's Not Ready for AI," *Harvard Business Review*, June 7, 2017, accessed October 7, 2019, <https://hbsp.harvard.edu/product/H03PKC-PDF-ENG>.
15. "Unilever Revenue," Stock Analysis, April 30, 2025, <https://stockanalysis.com/stocks/ul/revenue>.
16. Derek du Preez, "Unilever Teams Up with Microsoft to Deliver AI-Assisted Decision Making to Users," *Diginomica*, May 24, 2018, accessed January 28, 2020, <https://diginomica.com/unilever-teams-microsoft-deliver-ai-assisted-decision-making-users>.
17. Unilever, "Peter ter Kulve: Advantage at Scale in the AI & Handheld Economy," YouTube, December 5, 2018, accessed November 4, 2019, <https://www.youtube.com/watch?v=VRSfXwiDIJw>; Seb Joseph, "How Artificial Intelligence Is Influencing Unilever's Marketing," *Digiday*, April 8, 2019, accessed September 9, 2019, <https://digiday.com/marketing/artificial-intelligence-influencing-unilevers-marketing/>.
18. du Preez, "Unilever Teams Up with Microsoft."
19. Gautam Naik, "New CEO Alan Jope Puts Digital Transformation at Heart of Unilever's Strategy," *S&P Global Market Intelligence*, January 22, 2019, accessed January 28, 2020, <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/49355732>; Unilever, "Making Sustainable Living Commonplace: Unilever Annual Report and Accounts 2018," accessed January 28, 2020, https://www.unilever.com/Images/unilever-annual-report-and-accounts-2018_tcm244-534881_en.pdf.
20. "Hacks & Inspiration from Hair Experts at Unilever," *All Things Hair*, accessed April 30, 2025, <https://www.allthingshair.com/uk/home.html>.
21. Rebecca Stewart, "Unilever Ups Ad Spend by €300M in 2 Years Thanks to Agency Cutbacks," *The Drum*, April 19, 2019, accessed January 28, 2020,

<https://www.thedrum.com/news/2019/04/19/unilever-ups-ad-spend-300m-2-years-thanks-agency-cutbacks>.

22. Karlene Lukovitz, “The Tao of Unilever, Part 2: Amazing AI Applications,” MediaPost, May 7, 2019, accessed January 28, 2020, <https://www.mediapost.com/publications/article/335552/the-tao-of-unilever-part-2-amazing-ai-applicatio.html>.

23. “Dove Line Sticker,” Spikes Asia, accessed January 28, 2020, <https://www2.spikes.asia/winners/2016/promo/entry.cfm?entryid=898&award=101&order=6&direction=1>.

24. Gautam Naik, “New CEO Alan Jope Puts Digital Transformation at Heart of Unilever’s Strategy,” S&P Global Market Intelligence, January 22, 2019, accessed January 28, 2020, <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/49355732>; “Dove Line Sticker,” Spikes Asia, accessed January 28, 2020, <https://www2.spikes.asia/winners/2016/promo/entry.cfm?entryid=898&award=101&order=6&direction=1>.

Chapter 9

1. Peter ter Kulve, via email to Jim Lecinski, July 2019.

2. Jane Ho, “Introducing MiniBot: Chatbots in Mini Program,” Medium, May 14, 2018, accessed January 28, 2020, <https://medium.com/rikai-labs/introducing-minibot-chatbots-in-mini-program-3022b41083bf>; “Analytics for WeChat Mini-Programs: Where Do We Stand for Performance Tracking?” Solutions Benchmark, December 2018, accessed January 28, 2020, <http://313ct818yszd3xd6xa2z47nm-wpengine.netdna-ssl.com/wp-content/uploads/2018/12/31Ten-WeChat-Mini-Program-Analytics-v1.pdf.pdf>.

3. Team Linchpin, “A Beginner’s Guide to the Agile Method & Scrums,” pin SEO, accessed August 13, 2019 (updated June 5, 2020), <https://linchpinseo.com/the-agile-method/>.

4. Monica Georgief, “Book Roundup: 8 Must-Reads for Agile Marketers,” AgileSherpas, accessed January 28, 2020, <https://www.agilesherpas.com/8-books-for-agile-marketers/>.

5. Jim Lecinski, “Use an Agile Approach to Supercharge Your Marketing Process,” *Think with Google* (blog), Google, September 2024, <https://business.google.com/us/think/future-of-marketing/agile-marketing-approach>.

6. Brian Contreras, “The NBA Stepped Up Its Social Media Game with AI. So Can You,” *Inc.*, November 20, 2024, <https://www.inc.com/brian-contreras/the-nba-stepped-up-its-social-media-game-with-ai-so-can-you/90992874>.

7. “AI-Powered Search for Digital Commerce,” Lucidworks, accessed November 4, 2019, <https://lucidworks.com/digital-commerce/>; Ingrid Lunden, “Lucidworks Raises \$100M to Expand in AI-Powered Search-as-a-Service for Organizations,” TechCrunch, August 12, 2019, accessed November 1, 2019, <https://techcrunch.com/2019/08/12/lucidworks-raises-100m-to-expand-in-ai-powered-search-as-a-service-for-organizations/>.

8. “LATAM Airlines Personalizes Customer Journeys with OfferFit,” advertisement by OfferFit, YouTube, accessed April 30, 2025, https://www.youtube.com/watch?v=12fo_eT8WWo; “Case Study: LATAM Airlines Personalizes Customer Journeys with OfferFit,” OfferFit, February 14, 2025, <https://offerfit.ai/content/case-study/latam-airlines-personalizes-customer-journeys-with-offerfit>.

9. Michael Lacorazza, CMO of U.S. Bank, interview by Greg Stuart and Rex Briggs, hosts, *Decoding AI for Marketing*, podcast, “How U.S. Bank and Supergood Made an AI-Driven Campaign,” March 4, 2025, <https://youtu.be/tXXXm47rAOw?si=jEtQxhmvxxpSPqPU>.

10. Shareen Pathak, “‘Home Run for Us’: Inside Chase’s In-House Agency,” Digiday, May 30, 2018, accessed November 1, 2019, <https://digiday.com/marketing/home-run-us-inside-chases-house-agency/>.

11. Adrienne Pasquarelli, “Chase Commits to AI After Machines Outperform Humans in Copywriting Trials,” *AdAge*, July 30, 2019, accessed November 1, 2019, <https://adage.com/article/cmo-strategy/chase-commits-ai-after-machines-outperform-humans-copywriting-trials/2187606>.
12. Jaime Tero, “JPMorgan Chase Announces Five-Year Deal with Persado for AI-Powered Marketing Capabilities,” Persado, July 30, 2019, accessed November 1, 2019, <https://www.persado.com/press-releases/jpmorgan-chase-announces-five-year-deal-with-persado-for-ai-powered-marketing-capabilities/>.
13. Tero, “JPMorgan Chase Announces Five-Year Deal.”
14. Peter Adams, “JPMorgan Chase Inks 5-Year Deal to Generate Marketing Copy via AI,” *Marketing Dive*, July 30, 2019, accessed November 1, 2019, <https://www.marketingdive.com/news/jpmorgan-chase-inks-5-year-deal-to-generate-marketing-copy-via-ai/559836/>.
15. Adams, “JPMorgan Chase Inks 5-Year Deal”; Pasquarelli, “Chase Commits to AI.”
16. Tero, “JPMorgan Chase Announces Five-Year Deal.”
17. Van Diamandakis, former Persado CMO-in-residence and CMO advisor for technology consultancy Firebrick, via email to author Jim Lecinski, October 19, 2019.
18. Alexander Saeedy, “The Rise of Artificial Intelligence at JPMorgan,” *The Wall Street Journal*, February 24, 2025, https://www.wsj.com/tech/ai/jpmorgan-chase-artificial-intelligence-banking-939b1b32?mod=hp_featst_pos4.

Chapter 10

1. Ed Breault, direct quote to Jim Lecinski, July 14, 2020.
2. Anthony Ha, “Razor Startup Harry’s Will Be Acquired by Edgewell Personal Care for \$1.37B,” *TechCrunch*, May 9, 2019, accessed August 13, 2019, <https://techcrunch.com/2019/05/09/edgewell-acquires-harrys/>.
3. Paul W. Farris, Dominique M. Hanssens, James D. Lenskold, and David J. Reibstein, “Marketing Return on Investment: Seeking Clarity for Concept and Measurement,” *Applied Marketing Analytics* 1, no. 3 (April 2015): 270.
4. Paul Roetzer, “Machine Learning Made Easy for Marketers with Amazon Personalize,” *Marketing Artificial Intelligence Institute*, June 13, 2019, accessed November 1, 2019, <https://www.marketingaiinstitute.com/blog/machine-learning-made-easy-for-marketers-with-amazon-personalize>; “AWS Announces General Availability of Amazon Personalize,” *Business Wire*, June 10, 2019, accessed November 1, 2019, <https://www.businesswire.com/news/home/20190610005788/en/AWS-Announces-General-Availability-Amazon-Personalize>; “Amazon Personalize,” Amazon, accessed November 1, 2019, <https://aws.amazon.com/personalize/>.
5. Bernard Marr, “The Fascinating Ways Warby Parker Uses Artificial Intelligence and AR to Change Retail,” *Forbes*, April 18, 2019, accessed September 4, 2019, <https://www.forbes.com/sites/bernardmarr/2019/04/18/the-fascinating-ways-warby-parker-uses-artificial-intelligence-and-ar-to-change-retail/#5070f07c4b2e>; “Warby Parker: Customer Journey Breakdown and Marketing Review,” *Retention Science*, accessed November 1, 2019, <https://www.retentionscience.com/blog/warby-parker-marketing-review/>; “Data Science & Online Retail—At Warby Parker and Beyond: Carl Anderson Interview,” *Data Science Weekly*, accessed November 1, 2019, <https://www.datascienceweekly.org/data-scientist-interviews/data-science-transforming-online-retail-warby-parker-carl-anderson-interview>.
6. Suman Bhattacharyya, “Warby Parker’s David Gilboa: ‘Every Retailer Is Facing Increasing Consumer Expectations,’” *Digiday*, December 27, 2018, accessed November 1, 2019,

<https://digiday.com/marketing/warby-parkers-david-gilboa-every-retailer-facing-increasing-consumer-expectations/>.

7. “Sustainability Report 2018,” Warby Parker, November 1, 2019, <https://www.warbyparker.com/assets/img/sustainability/report-2018.pdf>.

8. “Walmart’s Generative AI Search Puts More Time Back in Customers’ Hands,” *Walmart Global Tech* (blog), Walmart, January 30, 2024, https://tech.walmart.com/content/walmart-global-tech/en_us/blog/post/walmarts-generative-ai-search-puts-more-time-back-in-customers-hands.html.

9. Ranjay Gulati, *Reorganize for Resilience: Putting Customers at the Center of Your Business* (Boston: Harvard Business School Publishing, 2010).

10. Rajkumar Venkatesan, Jenny Craddock, and Kyle Brodie, *Tackling Low Completion Rates—A Compare.com Conundrum*, case M-0947–1 (Charlottesville, VA: Darden Business Publishing, 2018).

11. Venkatesan, Craddock, and Brodie, *Tackling Low Completion Rates*.

12. Venkatesan, Craddock, and Brodie, *Tackling Low Completion Rates*.

13. Unilever, “Unilever Reinvents Product Shoots with Digital Twins and AI,” press release, March 18, 2025, <https://www.unilever.com/news/press-and-media/press-releases/2025/unilever-reinvents-product-shoots-with-digital-twins-and-ai>.

14. Ellen Hammett, “How Retail Startup Thread Is Using AI to Solve the ‘Choice Paradox,’” *Marketing Week*, February 6, 2019, accessed November 1, 2019, <https://www.marketingweek.com/menswear-startup-thread-algorithm-fashion-tech/>; Katie Strick and Samuel Fishwick, “Stitch Fix vs Thread: The AI Stylists to Help You Get Dressed in the Morning,” *Evening Standard*, September 26, 2019, accessed November 1, 2019, <https://www.standard.co.uk/tech/thread-vs-stitch-fix-reviews-2019-ai-fashion-stylists-a4247041.html>.

15. Luis Lopez Soria, “Personalizing Wellness Recommendations at Calm with Amazon Personalize,” *AWS Machine Learning* (blog), Amazon Web Services, September 23, 2021, <https://aws.amazon.com/blogs/machine-learning/personalizing-wellness-recommendations-at-calm-with-amazon-personalize>.

16. “How Do I Use the Thank You Note Generator?” Frequently Asked Questions, Zola, accessed May 1, 2025, <https://www.zola.com/faq/how-do-i-use-the-thank-you-note-generator>; Ben Sherry, “How Zola Is Using AI to Solve a Customer Pain Point,” *Inc.*, April 4, 2024, <https://www.inc.com/ben-sherry/how-zola-is-using-ai-to-solve-a-customer-pain-point.html>.

17. Thomas Stubbs, former vice president of engineering at Coca-Cola Freestyle, from direct interview with authors, November 3, 2019.

18. Chris Kelly, “What Coca-Cola Has Learned on Its Generative AI Journey So Far,” *Marketing Dive*, March 10, 2025, https://www.marketingdive.com/news/what-coca-cola-learned-generative-ai/741709/?utm_source=Sailthru&utm_medium=email&utm_campaign=Issue:%202025-03-11%20Marketing%20Dive%20Newsletter%20%5Bissue:71136%5D&utm_term=Marketing%20Dive.

Chapter 11

1. Azadeh Moghtaderi, from direct interview with authors.

2. Edgar Alan Rayo, “Artificial Intelligence at Disney, Viacom, and Other Entertainment Giants,” *Emerj*, May 17, 2019, accessed November 1, 2019, <https://emerj.com/ai-sector-overviews/ai-at-disney-viacom-and-other-entertainment-giants/>.

3. Jane Doe, “Machine Learning at Disney: Solving Happiness,” *Digital Initiative*, November 8, 2018, accessed November 1, 2019, <https://digital.hbs.edu/platform-rctom/submission/machine-learning-at-disney-solving-happiness/>.

4. James Kennedy et al., “Name Pronunciation Extraction and Reuse in Human-Robot Conversations,” companion publication for the 2024 ACM/IEEE International Conference on Human-Robot Interaction, Boulder, CO, March 11, 2024,

<https://la.disneyresearch.com/publication/name-pronunciation-extraction-and-reuse-in-human-agent-conversation>.

5. Josh D’Amaro, chairman of Disney Experiences, interviewed by Cleo Abram, *Huge If True*, YouTube, March 8, 2025, <https://youtu.be/enevSuDgf3U?si=vru491ZYl0ccJOYx>.

6. “The Tech Playground: Meet LVMH Tech Experts in Action,” LVMH—The Tech Playground, accessed May 1, 2025, <https://thetechplayground.lvmh.com/cases/hublot>.

7. “E-Warranty: Solution for Watches Authenticity and Replica Prevention,” Hublot, November 19, 2020, <https://www.hublot.com/en-us/news/hublot-e-warranty>.

8. “CarMax’s New Omnichannel Shopping Experience,” eTail, accessed November 4, 2019, <https://etaileast.wbresearch.com/blog/carmax-omnichannel-strategy-used-car-shopping-online>.

9. Jonathan Spiers, “CarMax Scouting Out Space Downtown,” *Richmond Biz-Sense*, December 14, 2015, accessed November 4, 2019, <https://richmondbizsense.com/2015/12/14/carmax-scouting-out-space-downtown/>.

10. David Muller, “Data Helps Solve Pre-Owned Sales Puzzle,” *Automotive News*, November 12, 2018, accessed November 1, 2019, <https://www.autonews.com/article/20181112/RETAIL04/181119976/data-helps-solve-pre-owned-sales-puzzle>.

11. Dylan Haviland, “CarMax Innovates with Omnichannel Strategy,” TTEC, accessed November 1, 2019, <https://www.ttec.com/articles/carmax-innovates-omnichannel-strategy>; Nicolas Wu, “Launching an Immersive Car Buying Experience at CarMax,” Adobe Blog, July 26, 2018, accessed November 1, 2019, <https://theblog.adobe.com/launching-an-immersive-car-buying-experience-at-carmax/>.

12. Databricks, “Creating an Omni-Channel Customer Experience with ML, Apache Spark, and Azure Databricks,” SlideShare, May 6, 2019, accessed November 4, 2019, <https://www.slideshare.net/databricks/creating-an-omnichannel-customer-experience-with-ml-apache-spark-and-azure-databricks>.

13. “Zillow Group Acquires AI Company Offering Virtual Staging,” Zillow Group, October 8, 2024, <https://www.zillowgroup.com/news/zillow-group-acquires-ai-company-offering-virtual-staging>.

14. Dan Berthiaume, “Ulta Beauty Shoppers Behold New AR, AI Features,” *Chain Store Age*, June 4, 2019, accessed November 1, 2019, <https://chainstoreage.com/technology/ulta-beauty-shoppers-behold-new-ar-ai-features>.

15. “Uruguay’s GlamST Acquired by Ulta Beauty,” *Endeavor*, November 20, 2018, accessed November 1, 2019, <https://endeavor.org/blog/entrepreneurs/uruguays-glamst-acquired-ulta-beauty/>.

16. Prama Bhatt, Ulta Beauty, from direct interview with authors, October 17, 2019.

17. “Company Facts,” Ancestry, accessed November 1, 2019, <https://www.ancestry.com/corporate/about-ancestry/company-facts>.

18. Gina Spatafore, “Ancestry Breaks November Sales Record,” *Business Wire*, November 29, 2018, accessed November 4, 2019, <https://www.businesswire.com/news/home/20181129005208/en/Ancestry-Breaks-November-Sales-Record>.

19. Azadeh Moghtaderi, former vice president data science and analytics, Ancestry, and Todd Pollak, former senior vice president for global customer success and product commercialization, from direct interview with authors August 26, 2019.

Chapter 12

1. Direct quote from David Rogers, via email to Jim Lecinski, July 6, 2020.

2. A. G. Lafley and Roger L. Martin, *Playing to Win: How Strategy Really Works* (Boston: Harvard Business School Publishing, 2013).

3. Steve Pereira, “How GE Burned \$7B on Their Platform (and How to Avoid Doing the Same),” *Platform Engineering* (blog), Platform Engineering, accessed May 1, 2025, <https://platformengineering.org/blog/how-general-electric-burned-7-billion-on-their-platform>.
4. “Sky Personalizes Subscription Management for Millions of Viewers,” Dynamic Yield, accessed May 1, 2025, <https://www.dynamicyield.com/case-studies/sky>.
5. “Tottenham Personalizes the Fan Experience,” Dynamic Yield, accessed May 1, 2025, <https://www.dynamicyield.com/case-studies/tottenham-hotspur>.
6. “How Walmart Became an Advertising Powerhouse,” *Financial Times*, August 18, 2024, <https://www.ft.com/content/1e2a5338-f1ae-41ee-bc08-4c86f2eb5a58>.
7. “Ace This Back-to-School Season with Walmart Connect and The Trade Desk,” The Trade Desk, May 28, 2024, <https://www.thetradedesk.com/resources/walmart-b2s-insights>.
8. Chris Kelly, “How Walmart Connect Is Growing the ‘Connective Tissue’ of Retail Media,” Marketing Dive, March 5, 2025, <https://www.marketingdive.com/news/walmart-connect-display-ad-api-retail-media/741461>.
9. “Ace This Back-to-School Season,” The Trade Desk.
10. Felix Salmon, “Why Walmart Spent \$2.3 Billion to Buy Vizio,” *Axios*, February 26, 2024, <https://www.axios.com/2024/02/26/why-walmart-bought-vizio>.
11. Roku, “Walmart and Roku Debut First-of-Its-Kind Partnership to Bring Commerce to TV Ads,” press release, June 16, 2022, <https://newsroom.roku.com/news/2022/06/walmart-and-roku-debut-first-of-its-kind-partnership-to/dopdtk67-1655389465>.
12. Ming Zeng, “Alibaba and the Future of Business,” *Harvard Business Review*, September-October 2018, 88–96, accessed November 1, 2019, <https://hbr.org/2018/09/alibaba-and-the-future-of-business>.
13. “Dubai to Boost Public Bus Ridership, Cut Journey Times Using New Artificial Intelligence System,” *Gulf News*, June 12, 2022, <https://gulfnews.com/uae/dubai-to-boost-public-bus-ridership-cut-journey-times-using-new-artificial-intelligence-system-1.88534772>.
14. Bernard Marr, “The Amazing Ways Alibaba Uses Artificial Intelligence and Machine Learning,” LinkedIn, July 31, 2018, accessed November 1, 2019, <https://www.linkedin.com/pulse/amazing-ways-alibaba-uses-artificial-intelligence-machine-marr/>; Abigail Beall, “In China, Alibaba’s Data-Hungry AI Is Controlling (and Watching) Cities,” *Wired*, May 30, 2018, accessed November 1, 2019, <https://www.wired.co.uk/article/alibaba-city-brain-artificial-intelligence-china-kuala-lumpur>; Steve LeVine, “China’s AI-Infused Corner Store of the Future,” *Axios*, June 17, 2018, accessed November 1, 2019, <https://www.axios.com/china-alibaba-tencent-jd-com-artificial-intelligence-corner-store-df90517e-befb-40ca-82d5-f37caa738d54.html>.
15. Coca-Cola Freestyle team, from direct interview by authors, October 18, 2019.
16. Bianca Flowers and Joseph White, “Focus: Deere Tapping into Apple-Like Tech Model to Drive Revenue,” Reuters, May 27, 2022, <https://www.reuters.com/business/autos-transportation/deere-tapping-into-apple-like-tech-model-drive-revenue-2022-05-26>; “John Deere: Revolutionizing Agriculture with AI,” AI Case Studies, Pamper Me Network, accessed May 1, 2025, https://www.pampermenetwork.com/index.php?option=com_alphauserpoints&view=creatormanager&id=2928&layout=detailblogfeed&lang=en; Fredrik Filipsson, “How John Deere Uses AI to Enhance Precision Farming,” Redress Compliance, January 23, 2025, <https://redresscompliance.com/how-john-deere-uses-ai-to-enhance-precision-farming>.
17. Derek Rodenhausen et al., “The Blueprint for AI-Powered Marketing,” Boston Consulting Group, <https://www.bcg.com/publications/2024/blueprint-for-ai-powered-marketing>.

1. CFA Institute Fiscal Year 2024 Annual Report, Chartered Financial Analyst Institute, 2025, https://www.cfainstitute.org/sites/default/files/docs/about/governance/cfa_annual-report-2024_final_03-05-25_w-financials.pdf.
2. Mark Snufin and Heather Lindeman, from direct interview by Raj Venkatesan, April 2025.
3. Yum! Brands company website, accessed April 23, 2025, <https://www.yum.com/wps/portal/yumbrands/Yumbrands/company>.
4. Yum! Brands, “Yum! Brands to Acquire Kvantum’s Leading Artificial Intelligence-Based Consumer Insights and Marketing Performance Analytics Business,” press release, March 2, 2021, <https://www.yum.com/wps/portal/yumbrands/Yumbrands/news/press-releases/yum+brands+to+acquire+kvantums+leading+artificial+intelligence-based+consumer+insights+and+marketing+performance+analytics+business>.
5. Alicia Kelso, “Yum Brands Is Adding Disruptive Technologies Across Its Global Restaurant System. Here’s How,” *Forbes*, January 27, 2021, <https://www.forbes.com/sites/aliciakelso/2021/01/27/yum-brands-is-adding-disruptive-technologies-across-its-global-restaurant-system-heres-how>; Madison Taylor, “Yum! Brands Bought an AI Analytics Company,” Madison Taylor Marketing, March 25, 2021, <https://madisontaylormarketing.com/library/60-second-read-why-yum-brands-bought-an-ai-analytics-company>.
6. Cathy Taylor, “Yum! Brands’ Ken Muench on the Need for Agility and How to Balance Brand and E-Commerce,” WARC, February 2, 2021, <https://www.warc.com/newsandopinion/opinion/yum-brands-ken-muench-on-the-need-for-agility-and-how-to-balance-brand-and-e-commerce/en-gb/4467>.
7. Taylor, “Yum! Brands’ Ken Muench.”
8. Yum! Brands, “Yum! Brands to Acquire Kvantum’s.”
9. “Why Yum!’s Internal Marketing Strategy Agency Considers Itself ‘Atypical,’” Yum! Brands, October 7, 2024, <https://www.yum.com/wps/portal/yumbrands/Yumbrands/news/company-stories-article/why+yums+internal+marketing+strategy+agency+considers+itself+atypical>.
10. Julie Littman, “Yum to Acquire AI-Based Company Dragontail Systems for \$72.3M,” Restaurant Dive, May 27, 2021, <http://restaurantdive.com/news/yum-to-acquire-ai-based-company-dragontail-systems-for-723m/600911>.
11. Nancy Luna, “Pizza Hut’s Parent Company Just Bought Its Third Food Tech Company in Two Months. Here’s What Yum Brands Plans to Do with Its Acquisitions,” *Business Insider*, May 27, 2021, <https://www.businessinsider.com/taco-bell-parent-yum-has-bought-two-food-tech-companies-to-help-drive-digital-business-2021-3>.
12. Luna, “Pizza Hut’s Parent Company”; “Yum! Brands Inc. (YUM) Q4 2021 Earnings Call Transcript,” AlphaStreet, February 9, 2022, <https://news.alphastreet.com/yum-brands-inc-yum-q4-2021-earnings-call-transcript>; and Littman, “Yum to Acquire AI-Based Company.”
13. “Yum Brands Rolls Out Conversational Commerce to 2,000 Stores,” PYMNTS, February 9, 2022, <https://www.pymnts.com/restaurant-technology/2022/yum-brands-rolls-out-conversational-commerce-2000-stores>.
14. Motley Fool Transcribing, “Yum! Brands (YUM) Q4 2022 Earnings Call Transcript,” The Motley Fool, February 8, 2023, <https://www.fool.com/earnings/call-transcripts/2023/02/08/yum-brands-yum-q4-2022-earnings-call-transcript>.
15. Yum! Brands 2024 Annual Report (Yum! Brands, Inc. Form 10-K, 2024), https://s2.q4cdn.com/890585342/files/doc_financials/2024/ar/2024-annual-report-4.pdf; Yum! Brands 2021 Annual Report (Yum! Brands, Inc. Form 10-K, 2021), https://s2.q4cdn.com/890585342/files/doc_financials/2021/ar/2021-annual-report.pdf; and Yum! Brands 2020 Annual Report (Yum! Brands, Inc. Form 10-K, 2020), https://s2.q4cdn.com/890585342/files/doc_financials/2020/ar/2020-annual-report.pdf.
16. Alicia Kelso, “Yum Brands Has Created an AI-Powered Platform to House All of Its Technology Solutions,” *Nation’s Restaurant News*, February 6, 2025, <https://www.nrn.com/quick->

[service/yum-brands-has-created-an-ai-powered-platform-to-house-all-of-its-technology-solutions.](#)

17. Kelso, “Yum Brands Has Created an AI-Powered Platform.”

18. Yum! Brands, “Yum! Brands to Accelerate AI Innovation in an Industry-First Collaboration with Nvidia,” press release, March 18, 2025, <https://www.yum.com/wps/portal/yumbrands/Yumbrands/news/press-releases/yum+brands+to+accelerate+ai+innovation+in+an+industry-first+collaboration+with+nvidia>.

19. Isabelle Bousquette, “Thanks to Nvidia, AI Will Soon Take Your Order at Taco Bell and Pizza Hut,” *The Wall Street Journal*, March 18, 2025, <https://www.wsj.com/articles/thanks-to-nvidia-ai-will-soon-take-your-order-at-taco-bell-and-pizza-hut-b03a076a>.

20. Seeking Alpha Transcripts, “Yum! Brands (YUM) Q4 2024 Earnings Call Transcript,” Seeking Alpha, February 6, 2025, <https://seekingalpha.com/article/4755622-yum-brands-yum-q4-2024-earnings-call-transcript>.

21. Seeking Alpha Transcripts, “Yum! Brands (YUM) Q4 2024.”

22. Reddy Mohith, “From Urban Convenience to Rural Accessibility: Here’s How Flipkart Changed the Market,” Product Monk, September 23, 2024, <https://www.productmonk.io/p/the-product-case-study-of-flipkart>.

23. Rajkumar Venkatesan and Bianca Kemp, *Flipkart: Reimagining the Digital Customer Experience* (Charlottesville, VA: Darden Business Publishing, 2024).

24. Venkatesan and Kemp, *Flipkart*.

25. Venkatesan and Kemp, *Flipkart*.

26. Jo Hartley, “Indian Languages: A Useful Guide to All the Languages Spoken in India,” Berlitz, October 31, 2021, <https://www.berlitz.com/blog/indian-languages-spoken-list>.

27. Venkatesan and Kemp, *Flipkart*.

28. Venkatesan and Kemp, *Flipkart*.

29. Venkatesan and Kemp, *Flipkart*.

30. Venkatesan and Kemp, *Flipkart*.

31. Shikhar Goel, “How We Are Breaking Language Barriers to Expand Access to E-Commerce,” *Flipkart Tech* (blog), Medium, July 21, 2020, <https://blog.flipkart.tech/building-multilingual-flipkart-for-bharat-f33c28ed629c>; Venkatesan and Kemp, *Flipkart*.

32. Deepa Sriram, “Flipkart US R&D Billion AI 2022 Conference,” *Flipkart Tech* (blog), Medium, October 19, 2022, <https://blog.flipkart.tech/flipkart-us-r-d-billion-ai-2022-conference-6cb3e262c700>.

33. Mohith, “From Urban Convenience to Rural Accessibility.”

34. Varun Krish, “Flipkart’s Big Billion Days Sale Records 1 Billion Visits, 35 Million App Downloads,” Fone Arena, September 30, 2022, <https://www.fonearena.com/blog/375655/flipkart-big-billion-days-sale-1-billion-visits-35-million-app-downloads.html>.

Chapter 14

1. Nicolas Darveau-Garneau, direct quote to Jim Lecinski via email, January 9, 2020.

2. “List of Public Corporations by Market Capitalization,” Wikipedia, accessed May 2, 2025, https://en.wikipedia.org/wiki/List_of_public_corporations_by_market_capitalization.

3. Timothy B. Lee, “Why Google Believes Machine Learning Is Its Future,” *Ars Technica*, May 10, 2019, accessed November 1, 2019, <https://arstechnica.com/gadgets/2019/05/googles-machine-learning-strategy-hardware-software-and-lots-of-data/>; Steven Levy, “How Google Is Remaking Itself as a ‘Machine Learning First’ Company,” *Wired*, June 22, 2016, accessed November 1, 2019, <https://www.wired.com/2016/06/how-google-is-remaking-itself-as-a-machine-learning-first-company/>.

4. “Google RankBrain,” Moz, accessed November 1, 2019, <https://moz.com/learn/seo/google-rankbrain>.

5. Thomas Thoresen, “Eric Schmidt: Google Cloud Next 2017,” YouTube, May 29, 2017, accessed November 4, 2019, <https://www.youtube.com/watch?v=iIlkZoy6hiM>; Martyn Williams, “Eric Schmidt Sees a Huge Future for Machine Learning,” *InfoWorld*, March 23, 2016, accessed November 4, 2019, <https://www.infoworld.com/article/3047617/eric-schmidt-sees-a-huge-future-for-machine-learning.html>.
6. Leena Rao, “Meet Google’s Artificial Intelligence Chief,” *Fortune*, October 27, 2015, accessed November 1, 2019, <https://fortune.com/2015/10/27/john-giannandrea-google-artificial-intelligence/>.
7. James Niccolai, “Google’s CEO Sees A.I. as the Next Wave in Computing,” *Computerworld*, April 21, 2016, accessed November 1, 2019, <https://www.computerworld.com/article/3060285/googles-ceo-sees-ai-as-the-next-wave-in-computing.html>; Catherine Clifford, “Google CEO: A.I. Is More Important Than Fire or Electricity,” CNBC, February 1, 2018, accessed November 1, 2019, <https://www.cnbc.com/2018/02/01/google-ceo-sundar-pichai-ai-is-more-important-than-fire-electricity.html>; Larry Dignan, “Google Bets on AI-First as Computer Vision, Voice Recognition, Machine Learning Improve,” *ZDNet*, May 17, 2017, accessed November 1, 2019, <https://www.zdnet.com/article/google-bets-on-ai-first-as-computer-vision-voice-recognition-machine-learning-improve/>.
8. John P. Kotter, *Leading Change* (Boston: Harvard Business Review Press, 2012), 23; John P. Kotter, “Leading Change: Why Transformation Efforts Fail,” *Harvard Business Review*, January 2007, accessed January 29, 2020, <https://hbr.org/2007/01/leading-change-why-transformation-efforts-fail>.
9. Linda Tucci, “Automation and AI Challenges: CIO Tips for Success,” TechTarget, July 17, 2019, accessed November 1, 2019, <https://searchcio.techtarget.com/video/Automation-and-AI-challenges-CIO-tips-for-success>.
10. “The State of AI: How Organizations Are Rewiring to Capture Value,” McKinsey & Company, March 12, 2025, <https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai>.
11. “Overview of Process Mining and Task Mining in Power Automate,” Power Automate, Microsoft, accessed May 2, 2025, <https://learn.microsoft.com/en-us/power-automate/process-advisor-overview>.
12. Lydia Ume, “What Is a Marketing Operating Model? An Ultimate Guide,” The CMO, January 7, 2025, <https://thecmo.com/marketing-strategy/what-is-a-marketing-operating-model>.
13. “Beyond the Brand: Marketing for Consumer Goods,” Accenture, May 17, 2019, accessed November 1, 2019, <https://www.accenture.com/us-en/insights/consumer-goods-services/beyond-brilliant-basics-consumer-goods-marketing>.
14. Annie Duke, *Thinking in Bets: Making Smarter Decisions When You Don’t Have All the Facts* (New York: Portfolio, 2018).

Chapter 15

1. Bob Morris, “Geoffrey Moore on Zone Management: An Interview by Bob Morris,” *Blogging on Business*, November 29, 2015, accessed January 29, 2020, <https://bobmorris.biz/geoffrey-moore-on-zone-management-an-interview-by-bob-morris>.

Chapter 16

1. *The Evolution of AI Marketing, 2025: Research Created for Marketers* (Ascend2 and Ascend2 research partners, 2025), <https://ascend2.com/wp-content/uploads/2025/01/The-Evolution-of-AI-in-Marketing-2025.pdf>.
2. Via email to Jim Lecinski, used with permission from Mitch Duckler.
3. Via email to Jim Lecinski, used with permission from Aaron Goldman.
4. Via interview with Jim Lecinski, used with permission from Konrad Feldman.

5. Via email to Jim Lecinski, used with permission from Kristen D'Arcy.
6. MaryLee Sachs, "Putting the C in CMO," *Forbes*, January 20, 2020, accessed January 29, 2020, <https://www.forbes.com/sites/maryleesachs/2020/01/20/putting-the-c-in-cmo/#1635b94d6b55>.
7. "Teachable Machine," accessed January 29, 2020, <https://teachablemachine.withgoogle.com/>.
8. Kristin Lemkau, "Machine Learning Will Make Marketing More Human," Web Summit video, November 5, 2019, accessed January 29, 2020, https://www.sapo.pt/websummit/en/machine-learning-will-make-marketing-more-human_86714f34-c053-4ef6-bbb3-fa559a80d1ca.
9. "Our Mission," Starbucks, accessed January 29, 2020, <https://www.starbucks.com/about-us/company-information/mission-statement>.
10. Jennifer Warnick, "AI for Humanity: How Starbucks Plans to Use Technology to Nurture the Human Spirit," Starbucks Stories and News, January 10, 2020, accessed January 29, 2020, <https://stories.starbucks.com/stories/2020/how-starbucks-plans-to-use-technology-to-nurture-the-human-spirit/>.
11. Eric Solomon, "Your Data-Driven Marketing Is Harmful. I Should Know: I Ran Marketing at Google and Instagram," *Entrepreneur*, November 27, 2020, <https://www.entrepreneur.com/growing-a-business/your-data-driven-marketing-is-harmful-i-should-know-i-ran/344399>.
12. Warnick, "AI for Humanity."
13. Warnick, "AI for Humanity."

About the Authors

1. Stuart Elliott, "Google Offers Marketing Ideas, by the Book," *The New York Times*, July 15, 2011, accessed January 28, 2020, <https://mediadecoder.blogs.nytimes.com/2011/07/15/google-offers-marketing-ideas-by-the-book/>.
2. Adweek Staff, "The AI Trailblazers Power 100 Are Building the Future," *Adweek*, April 8, 2025, accessed May 4, 2025, <https://www.adweek.com/brand-marketing/ai-trailblazers-power-100-2025-building-the-future/>.

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About the Authors

Jim Lecinski is a clinical professor of marketing at Northwestern University's Kellogg School of Management, where he teaches popular courses in marketing strategy, omnichannel marketing, and AI in marketing. In 2022 he was named Kellogg's professor of the year. Prior to his position at Kellogg, Lecinski was vice president of customer solutions at Google, where he wrote *ZMOT: Winning the Zero Moment of Truth*. Lauded by expert reviewers as "truly a paradigm shift in how marketers view buyer behavior," *ZMOT* has been read by more than three hundred thousand marketers worldwide and has been featured in *The New York Times*,¹ *Advertising Age*, *MediaPost*, and others. In early 2025, Lecinski was named to the inaugural AI Trailblazers Power 100 list.² Please connect with him on LinkedIn: www.linkedin.com/in/jimlecinski/

Rajkumar Venkatesan is the Ronald Trzcinski Professor of Business Administration at the University of Virginia's Darden School of Business. Venkatesan has written about and taught quantitative marketing to MBA and executive education students worldwide. At Darden, he has taught a course on marketing analytics for more than ten years and a course on marketing technology products for five years. Venkatesan's experience in these courses translated into coauthoring a book called *Cutting-Edge Marketing Analytics*. More than 235,000 individuals have participated in his Coursera course on marketing analytics. Please connect with him on LinkedIn: www.linkedin.com/in/profv/