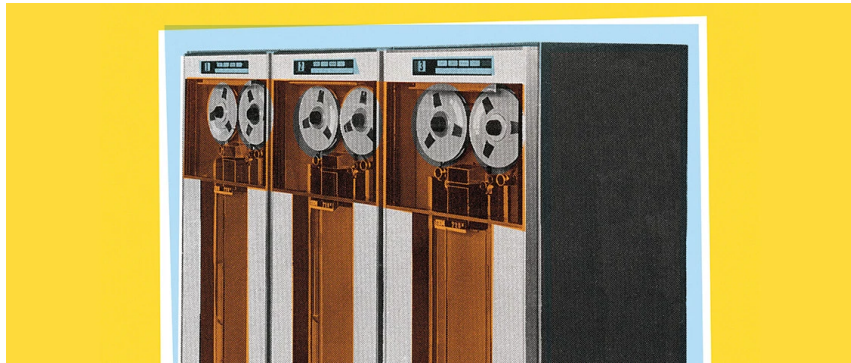


Data is a Product

4.24.2019 • Lawrence A. Crosby and Chris Langdon



Key Takeaways

WHAT?

Data and software are both products, yet the former is seldom considered so.

SO WHAT?

Data providers are not doing enough to embrace product management, which can drive better results.

NOW WHAT?

Companies that conceptualize data as a product should adopt a modern view of product management as a continuous loop with a customer-centric discipline.

Managers who conceptualize data as a product can maximize its multi-functional potential

It's easy to view software as a product or service. Software instructs hardware how to process data. Data, however, is a product, though it is seldom considered so. Consequently, many data providers have not embraced product management, an integrative discipline capable of driving better results. Career opportunities exist in these firms for young, tech-savvy marketers who are willing to step up and help define the product manager's role.

Like any product, data can be sold if buyers perceive they have value in satisfying a need. Data has features and characteristics, although these are not always articulated in the language of the customer. Data products are built from raw materials (e.g. bits and bytes), involving successive layers of aggregation to generate something useful, such as insights. Ownership rights are associated with data and have become a major point of contention regarding privacy. Similar to a carton of milk, data has a shelf life and expiration date, at which time it becomes no longer valuable. Data differs in terms of quality, which can be difficult to discern given its highly intangible nature. The business world will face an onslaught of new data with the arrival of 5G high-data-rate networking, the internet of things and autonomous vehicles.

Data is at the epicenter of consumer marketing, from digital customer journeys to voice-based user interfaces, virtual assistants and personalized recommendations. Where data is notably expansive and complex, data analytics rule the roost. Despite this, the notion of data as a product to be managed hasn't widely caught on. Product management isn't new, with roots dating back to the 1930s at Procter & Gamble. Within the last decade or so, it has gone through a metamorphosis driven largely by the digital revolution. The tech industry has helped elevate the role of the product manager to that of a mini-CEO, whose job starts and ends with the customer

and who is responsible for aligning all the functions necessary to successfully launch and maintain a product—including operations, design and engineering, marketing and sales, and finance and legal.

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Data products begin with a novel idea that is often the result of several minds coming together. An information need is identified that might be satisfied through capturing and aggregating data around a phenomenon. (For example, ancestry.com leverages the genealogical records of The Church of Jesus Christ of Latter-day Saints.) It is at this point that the discipline of product management should begin because creativity at the concept development phase must be paired with a candid assessment of target markets, the competitive landscape, positioning opportunities, branding options and the business model. The product manager should lead this analysis.

The next major phase involves the design and testing of a prototype. Two issues emerge that require the manager's close attention. One is assuring the quality and integrity of the data: Does the data accurately and reliably capture characteristics of the phenomenon it claims to measure? To assure this in the prototype phase, assess how the data relates to other measures of the same or similar things. Is the data in some way predictive? For example, does a consumer lifestyle indicator predict openness to a purchase recommendation?

The second issue concerns the methods by which customers may access the data. This is analogous to retail channel decisions in product marketing. While it could be as simple as emailing datafiles, data delivery usually involves some level of bundling of the data with software. That software can enable data governance that rules who can access data for what use, and it can allow the user to download, interrogate and visually display data. Therefore, the user and software interfaces require close examination: Are the steps convenient and foolproof? Is the output easy to understand?

The next phase of the process might be called "scale up and automation." This is the stage where the manual activities of creating the prototype are streamlined and data is labeled, classified,

cleaned and prepared for delivery, often using artificial intelligence methods. Too often, product managers have tossed automation tasks to operations. This can be a huge mistake if data integrity is lost in the data factory. In the end, the product manager is also the data product's chief quality officer. One of the key lessons of quality assurance is to design and improve processes so they don't produce defects. The product manager might, at this point, consider implementing a parallel test: manual versus automated. Do the two methods produce the same result at each step in the data factory?

Much can be said about the product manager's responsibilities around launch and promotion, but there's a tendency to overlook the product manager's responsibilities post-launch. These are partly operational and partly strategic. From the operational standpoint, it is critical that the product manager maintains direct dialogue with the customer to understand the customer journey and subjective experience and how to improve them.

On the strategic side, the product manager should also pay close attention to growth opportunities. Is there a chance to enter new markets, such as when Cerner moved from electronic medical records into population health? What about product extension, such as giving Bloomberg Terminal users access to data on firms' supply chains?

Companies can benefit from conceptualizing data as a product. Borrowing from the software industry, data marketers should adopt the modern view of product management as a multi-functional, continuous-loop, customer-centric discipline. This opens the door for a new breed of product manager, one who blends traditional soft skills, business savvy and an intense customer focus with knowledge of applied statistics, data management and software development.

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