

Three Parables for Perfect eCommerce Product Management

What Milkshakes, Elephants, and Fighter Pilots Teach Us About Product Management Process for eCommerce

Table of Contents

Introduction	3
CHAPTER ONE The Parable of the Milkshake	6
снартег тwo The Parable of the Blind Men and the Elephant	17
CHAPTER THREE The Parable of the 4,000 Fighter Pilots	28
Conclusion	35

Introduction

INTRODUCTION

As eCommerce becomes ever more competitive, delivering a seamless online shopping experience is as lucrative as it is challenging.

That's because when it comes to today's digital storefront, the always-online customer expects nothing less than perfection. What's more, they expect it delivered at broadband speeds whenever and wherever they want.

As an eCommerce product manager, you're charged with overseeing the shopping experience from search to sale to delivery. If you hope to exceed customer expectations, you've got your work cut out for you.

Despite ever-higher customer expectations, the fundamental job of an eCommerce product manager hasn't changed: translate the shopper's needs into a product vision and then drive an efficient process to make that vision a reality.

66 The fundamental job of an eCommerce product manager 99 hasn't changed: translate the shopper's needs into a product vision and then drive an efficient process to make that vision a reality.

The job of product management *is* that process. As Dan Hill, Co-Founder of Alma and former Director of Product at Airbnb put it, "[The product manager's] product ... [is] the process that builds the product. Designers output interfaces and interactions, engineers output code, product managers output process."¹

For digital product managers in eCommerce, your process means you must:

- Clearly understand the shopper's problem—how do we remove friction in the sales process? How do we use software to further the goals of merchandising, marketing, and other stakeholders?.
- 2. Facilitate efficient communication across the teams responsible for the eCommerce site (or app).
- 3. Launch fixes and improvements.
- 4. Measure results to identify further opportunities for fixes and features.
- 5. Go back to Step 1.

With a better understanding of the process that drives improvement for your product—the eCommerce buying experience—you can make that process better. And while many books have been written about doing just that, perhaps the wisdom you need can be found through illuminating stories.

We've compiled *Three Parables for Perfect eCommerce Product Management*. Each parable delivers a lesson you can put to work right away to drive better process—and build better products going into 2019 and beyond.

¹ Observations on Product Management, Dan Hill, 2017



The Parable of the Milkshake

According to research from Alpha's 2018 Product Management Insights report, the top three responsibilities of product managers are setting the roadmap (89%), writing user stories (81%) and conducting customer interviews (70%).

The product manager's top responsibility is to understand and map customer needs to the product.



PRODUCT MANAGERS RESPONSIBLE FOR FOLLOWING ACTIVITIES:

Alpha, 2018 Product Management Insights

These responsibilities exist, of course, because the product manager needs to have extreme clarity about the problem their product is aiming to solve. Achieving this level of clarity— understanding just what the customer's story *is*—it's not as simple as interviewing customers.

If you want to understand the expectations of your customers when it comes to the online shopping experience your eCommerce site delivers, you have to take a less direct route, which brings us to our first parable, *The Parable of the Milkshake*.



Clayton Christensen, Harvard Business Professor and writer of the popular book The Innovator's Dilemma, tells us a story that reveals how understanding what your customers are actually using your product for is key to understanding how to improve the product.

The story begins with a fast food enterprise looking to understand how to make a better milkshake in order to drive more sales. What is it customers enjoy about milkshakes? How do you take an already delicious, creamy milkshake and make it better?

The fast food franchise hired researchers to study their milkshake-consuming customers. On receiving the results, they went on to improve their milkshakes across the dimensions identified by the research. Only when they reviewed the milkshake sales numbers, it turns out their "improvements" did not increase milkshake sales at all.

What was happening? The customers were given what they said they wanted yet nothing changed.

It was a mystery.

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So they determined to take a different approach. This time, real-life milkshake consuming customers were observed. Surprisingly, about half of the milkshake sales occurred before 8:00 AM. On studying these early morning milkshake buyers, a pattern emerged.

Turns out these early-morning milkshake slurping customers had a "job to be done." They were buying milkshakes to drink in between stop-and-go commutes on their way to work. The milkshake solved their dual problems of hunger and boredom.

Why milkshakes instead of foods like bagels, donuts, or bananas? According to Christensen, the researchers found that:

The milkshake does the job better than any of the competitors, which in the customer's minds are not Burger King milkshakes but bananas, donuts, bagels, Snickers bars, coffee, and so on.

- Clayton Christensen, Milkshakes - Understanding the Job

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For these early morning commuters, more traditional breakfast foods all had problems when they were consumed on the commute—crumbs, too easy to eat quickly, not satiating, whatever.

What mattered most to road warrior milkshake buyers was how well the food solved their problems. The food needed to be easy to consume while driving but not so easy as to be eaten too quickly while also satisfying hunger until the next meal could be had.

These customer expectations when applied to milkshakes simply weren't the same as the stated desires discovered through research.





People don't want to buy a quarter-inch drill. They want a quarter-inch hole!



— Theodore Levitt, Harvard Business Professor

The moral of the *Parable of the Milkshake* is that customers buy products and services to solve some problem, what Clayton Christensen calls a "Job-to-Be-Done."

To understand the Job-to-Be-Done, product managers must understand the difference between benefits and features. It's easy to get hung up on the technical prowess of your product. The whizbang features that were so hard to build excite the teams that built them. However, the online shopper landing on your site doesn't care about how your platform works. What they care about is if your product—the online shopping experience—provides them what they need.



Froduct managers will directly connect with end users
rather than extracting feedback through multiple layers
of sales and intermediaries.

— Product Managers for the Digital World, McKinsey & Company, May 2017

Product managers cite direct feedback from the customer as the number one, best source for product and feature ideas.² As a product manager, you know customers choose your product because it solves a specific problem for them.

With eCommerce, the specific problem is in helping customers satisfy their shopping needs, whatever they may be. Unfortunately, these needs can vary across digital shoppers based on both where in the buyer's journey they are as well as what they are shopping for. That's why it's critical to understand the customer's shopping needs as specific Job-to-Be-Done.

² 2018 Product Management Insights, Alpha

What works well for the customer shopping a big ticket item won't be the same as what solves the problem of the value shopper looking to score a good deal. The problems of the apparel shopper won't be the same as the tech shopper even if it's the same shopper, just at different times.

Understanding these nuances and how to build your eCommerce experience to deal with them is why eCommerce product managers need direct feedback from customers—ways to connect directly with end users. And once you're able to observe real customers, follow up your observations with additional questions.

Of course, observing real online shoppers can be challenging: the customers are engaging with your eCommerce site from afar, through their own devices, on the other side of a screen.

Working around this challenge may require formal user experience research through services that offer user testing—that is, you hire individuals to use your product to some end while you make observations.

User session recording and replay offer an intriguing solution to understanding the digital customer's Job-to-Be-Done.

New technologies like user session recording and replay offer an intriguing solution to understanding the digital customer's Job-to-Be-Done. Replay how actual users engage with your site through video-like recordings. These types of recordings benefit

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from their authenticity but also have a level of nuance that can not only highlight problems but also point to potential solutions.

For example, tools like FullStory capture frustration signals called "Rage Clicks." Rage Clicks occur when a visitor repeatedly and rapidly clicks on the same element on your site or app—say your sluggish "Purchase" button. Through FullStory's replay, you can play back what users do before and after "Rage Click events" and uncover potential gaps in performance—or discern clues at how the shopping experience is missing expectations around a specific Job-to-Be-Done.

THRED^{UP'} + fullstory

CASE STUDY » IMPROVING ONLINE SHOPPING WITH THREDUP

For thredUP, the world's largest online thrift and consignment store, the entire inventory is temporary: every single item that's in stock has a total quantity of one. The product team has to get a lot of things right to keep the thredUP eCommerce engine running.

That's why when thredUP overhauled their website, changing everything from the architecture to the UI/UX, Dan DeMeyere, VP of Engineering, and his team replayed sessions in FullStory. They needed to understand if customers were using their product as they had hoped. 66 The problem we were trying to solve, that FullStory did 99 a much better job of solving than some of the other services that we were using, was trying to understand what our customers are actually doing.

-Dan DeMeyere, VP Engineering at ThredUp

The advantage of qualitative, user research through session replay stands in contrast to user research studies in which, as DeMeyere put it, "You ask a lot of leading questions." Unfortunately, the responses to these questions "aren't always indicative of what the customers are doing when they're shopping."

In particular, FullStory helps reveal the thredUP customer's Job-to-Be-Done. For example, Demeyere shares how they use FullStory to assess qualitatively if the mothers who shop on their site are able to do so efficiently:

With thredUP, almost 100% of our customers are women—and a lot of them are moms. Moms are busy and they have a lot on their hands. So they might have less of a tolerance for digging through your UI to find hidden features.

For us, FullStory was a really good way to see if these customers were actually using the product the way they want to. With FullStory you can just watch someone's session and it becomes evident very quickly if what you are building is working for the customer or not.

Replaying sessions answers whether a new UI/UX change in the eCommerce experience is helping—or hindering the customer. Can they get the job done? That is, go from shop to checkout as quickly and painlessly as possible.

For that, FullStory and session replay work to provide thredUP with the answers they need to understand and improve their customer's online shopping experience.

Read more about thredUP's story >

Even while new technology can be used to tease out your customer's "Milkshake" problems, you'll still want to follow up— as best you can—with actual customers.

Get the rest of the story.

Consider the basic needs your customers are seeking to fill. Professor Christensen has written:

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With few exceptions, every job people need or want to do has a social, a functional, and an emotional dimension.



 <u>What Customers Want from Your Products</u>, Clayton Christensen, Scott Cook & Taddy Hall, January 2006 How does your eCommerce site or app satisfy these dimensions? Ask:

- **Social:** How does your eCommerce platform signal trust and reputation to your customers?
- **Functional:** Are barriers and friction to the shopping experience removed? What about performance— is it optimized?
- **Emotional:** Is the shopping experience delightful? Does it eliminate anxiety as your customers shop and complete their purchase?

If you answer these and other questions thoroughly for each type of customer, you'll have a better sense of where you can improve the shopping experience you're building as well as where any gaps exist.

Persistent product managers solve the mystery of the milkshake—and in the process discover a more customer-centric way to understand their online shopping experience.



CHAPTER TWO The Parable of the Blind Men and the Elephant

Now that we've established the importance of understanding customer expectations—something accomplished through researching real user behavior and actually talking to your customers—you might think product managers spend a lot of time doing just that.

Only they don't.

According to Pragmatic Marketing's 2018 Product Management and Marketing Survey, a whopping 72% of time working per month is spent on tactical activities like managing email (4 normal workdays per month on this alone), attending meetings (clocking in at over 43 hours per month!), and supporting development team efforts (29 hours per month).

Product managers bogged down in administrative tasks rather than high-value strategic work.



2018 Product Management and Marketing Survey, Pragmatic Marketing, 2018

What does all of this time spent have in common? It all involves aligning teams and making sure everyone is working together, toward the same goal, and off the same page.

Which brings us to our next parable, one that provides insight into what's going on here—and it's all about perception and communication.



The Parable of the Blind Men and the Elephant is believed to have originated in India. Here is one retelling of it³:

A group of blind men heard that a strange animal, called an elephant, had been brought to the town, but none of them were aware of its shape and form. Out of curiosity, they said: "We must inspect and know it by touch, of which we are capable." So they sought it out, and when they found it they grabbled about it ...

The first person—whose hand landed on the trunk—said, "This being is like a thick snake." For another one whose hand reached its ear, it seemed like a kind of fan. As for another person, whose hand was upon its leg, said "The elephant is a pillar like a tree-trunk." The blind man who

³ Blind Men and an Elephant, Wikipedia

placed his hand upon its side said, "The elephant is a wall." Another who felt its tail described it as a rope. The last felt its tusk, stating the elephant is that which is hard, smooth and like a spear.

In some variations of the story, the men go on to share information only to discover they are not in agreement with each other. These disagreements lead to confusion, accusations of deception, and even violence.

In other variations of the story, an individual appears who can see. This person describes the entire elephant. The blind men are then able to understand how they were each right in part, only their knowledge was incomplete.



The Parable of the Blind Men and the Elephant teaches us much about problems of perception and communication. Each blind man is only able to take in a portion of the information that which can be experienced through touch (Setting aside sound and smell).

Notably, each man relies on his own perception of the elephant to understand the entire animal. The primary experience is all that matters and for each blind man, there is no other information. In Nobel Laureate Daniel Kahneman's book, <u>Thinking</u>, Fast and <u>Slow</u>, Kahneman discusses how when presented with limited information, we rely completely on our limited understanding, treating it as though it is all-inclusive. We do not automatically look for gaps in our knowledge.

Kahneman refers to this cognitive bias as "What you see is all there is" or "WYSIATI." Kahneman shares:

You cannot help dealing with the limited information you have as if it were all there is to know. You build the best possible story from the information available to you, and if it is a good story, you believe it. Paradoxically, it is easier to construct a coherent story when you know little, when there are fewer pieces to fit into the puzzle. Our comforting conviction that the world makes sense rests on a secure foundation: our almost unlimited ability to ignore our ignorance.

Returning to our parable, in an optimal scenario that uses communication, our group of blind men can piece together each other's second-hand information to create a "complete," though imperfect, understanding of what an elephant is.

With the aid of a sighted individual, they can go even further, taking their intimate first-hand knowledge and combining it with some explanation of the big picture.

These solutions to the problem of perception require a great deal of communication and trust between teams as they struggle to get on the same page. Outsiders can help—though as intermediaries they introduce a layer of administration and friction.

Ultimately, as the *Parable of the Blind Men and the Elephant* illustrates, if you want to bring together individuals with different perspectives, you need an intermediary that facilitates the exchange of meaningful communication so that teams may create a shared understanding.

Application to Product Management for eCommerce

If you work across teams to build complex, digital products, the challenges become clear. The blind men are the customer support professionals, marketers, developers, UX researchers and designers, among others. Each team works on a part of the eCommerce experience about which they have intimate, first-hand knowledge. Each understands the product through their unique perspectives:

- Support professionals focus on problems experienced by customers,
- UX teams focus on research and analysis around site or app use,
- Developers focus on code, performance, QA, and bugs,
- And so on.

Division of labor is what makes building and maintaining complex digital products possible. What can be maddening is coordinating perspectives and getting everyone to work towards the same objectives—all with as little friction in communication as possible.

Now we know the reason why PMs spend upwards of threefourths of their month in meetings, email, and supporting efforts of developers, which of course has everything to do with cross-functional alignment.

You, the product manager, readily fill the role of the "sighted individual" in our parable. You see it all. For you, the big picture is the shopping experience—our elephant.

Yet you still struggle to serve as interpreter and translator of first-hand knowledge from and across your teams.

It's terribly inefficient.

Let's consider the support professional who works with a customer to understand a technical glitch while trying to check out. A ticket is filed and, to the best of the support agent's ability, the problem is logged and passed on to your developers. It's just that on arrival the developer finds only enough information to know there's a problem and not quite enough information to resolve it. The ticket lacks important data that would make solving the bug a snap. Too often, the bug languishes until it is finally archived as "Cannot reproduce." Meanwhile, support is left managing errors and worse, you're losing customers.

When problems like these pile up, the PM inevitably steps in, researches the problem, and allocates time and resources toward

solving it. Maybe it even gets solved. No matter what, the process is frustrating and distracts from more exciting projects.

Efficiency-minded PMs who want to improve process for their teams—reclaiming a chunk of their own time while they are at it—need to hunt for innovative ways to reduce the friction and the "transaction costs" of information sharing and collaboration across teams.

What's needed are tools that help teams work together tools that help them see the eCommerce shopping experience just how they need to in order to do their jobs, but also empower an understanding of how their efforts fit into the big picture.

More robust analytics, integrations across tools, and even tools like Slack help break down cross-team barriers to communication.

One promising technology for empowering collaboration across teams is session replay. For example, replaying session recordings in <u>FullStory</u> will give you a reproduction of a user's experience on a website or app. Because a session recording captures all the information from the user's visit—everything from what's seen on screen all the way down to minute details like console errors, network problems, stack traces, UserAgent, and system information—each team member gets precisely what they need to do their job. The support agent gets to see what the user saw. The developer gets to "see" what's happening behind the scenes.

Importantly, these tools package up all of the relevant data into a shareable link that can be passed across departments just like a

YouTube video. Just as a picture is worth a thousand words, a replay link eliminates the friction of written notes explaining "just what seems to be the problem." It gives teams that were formerly blind a second sight.



Integrating FullStory with your support desk tool means every ticket comes with a link to replay just what went wrong as well as the technical details needed to troubleshoot the problem.

Whether it's Slack, better integrations from debugging tools to support desks, or FullStory, eCommerce product managers seeking to improve process stand to benefit from helping their teams eliminate friction in perception and communication.

Speak a Common Language Across Your Teams

FullStory session recordings serve as the ground truth for the customer's experience, creating new, cross-functional workflows. With replay eliminating the need to translate problems across different product disciplines, previously siloed teams in your organization are able to communicate clearly about customer



issues as easily as sharing a link:

» Support > Developers: A customer support ticket identifying a bug includes a link to the session replay. Your support team can share this recording directly with developers so they can quickly understand, triage, and fix it.

» Product > Design: When the product team identifies an issue with the UX, they can present designers with

sessions that show exactly what's going wrong and spark ideas for improvement.

» Marketing & Sales > Developers, Design, Product:

Marketing teams can see how real users engage, get distracted, miss calls-to-action, or misunderstand products. These insights will help them craft better messaging and also collaborate with front-end developers more effectively.

FullStory provides the empirical evidence of what's working on your site and and what's not, serving as a rallying cry to spur action through informed, customer-driven solutions.

Learn more about FullStory >



CHAPTER THREE The Parable of the 4,000 Fighter Pilots

66 Over the next three to five years, we see the productmanagement role continuing to evolve toward a deeper focus on data (without losing empathy for users) ...

- Product Managers for the Digital World, May 2017, McKinsey & Company

Timely and accurate measurement is a critical dependency for product managers. For eCommerce products, measurement means everything from website traffic to conversion rates, average order value to cart abandonment. No matter what you're tracking, measurement usually involves studying specific cohorts or segments of users.

Regardless of the performance being analyzed, what's important is for PMs to have access to timely information that accurately reveals the health of the site. You need high-quality information to drive decisions.

Where eCommerce product managers can run into measurement trouble is in finding the right mix of quantitative and qualitative data off which to base decisions, all while taking care to mind the nuances:

• **Quantitative analysis** distills activity into abstractions. While context is usually lost in aggregating individual user behaviors, high-level insight is gained.

 Qualitative research is powerful because it is personal. But it has the opposite problem: it's too close to the individual, anecdotal, and is difficult to extrapolate from "n=1" to larger groups.

Why the balance matters—and some clues to working through the balance—are revealed in our next parable, *The Parable of the 4,000 Fighter Pilots*.



In 1950 the U.S. Air Force set about redesigning the cockpit for their airplanes⁴. Researchers took physical measurements of 4,000 pilots across 140 dimensions of size in order to determine the average torso length or arm length and use that average to inform the placement of the cockpit seat, the yoke (i.e. the steering wheel), and other components.

Unfortunately, the resulting cockpit design was a disaster. Good pilots were crashing having lost control of their planes. Mysteriously, no one, including the pilots, quite understood what was amiss.

Lt. Gilbert S. Daniels, a 23-year-old Air Force analyst, had

⁴ <u>When U.S. air force discovered the flaw of averages</u>, Todd Rose, The Star, January 2016

experience in measuring the human body. He'd studied human anatomy in school. Daniels had a theory: Perhaps the cockpit had been designed under false premises. Perhaps there was no average pilot size.

To test his hypothesis, Daniels looked at the 10 most relevant physical dimensions of pilots from the study and created an "average pilot" based on the middle 30% range of the dimensions. According to Daniels' analysis, the "average pilot" ranged in height from 5'7" to 5'11". Daniels then looked at the entire pool of 4,063 pilots and tried to match individual pilots to his "average pilot" across the ten dimensions.

Daniels' hypothesis was correct. Not a single pilot fit the average. As it turns out, designing a cockpit for the average man is the same as designing it for no one.

Armed with this insight the Air Force radically changed their design philosophy⁴:

By discarding the average as their reference standard, the air force initiated a quantum leap in its design philosophy, centered on a new guiding principle: individual fit.

Rather than fitting the individual to the system, the military began fitting the system to the individual.

The Air Force had engineers immediately fix the problem. In short order components were made adjustable. The cockpit debacle is what ultimately led to adjustable car seats.



66 The tendency to think in terms of the 'average man' is a pitfall into which many persons blunder ... It is virtually impossible to find an average airman not because of any unique traits in this group but because of the great variability of bodily dimensions which is characteristic of all men.

- Lt. Gilbert Daniels, Air Force Analyst

Daniels' insight—that there is no average human—doesn't stop at anatomy. It applies just as readily to any product that involves people, where the underlying environment is the output of a number of dynamic, interdependent variables.

To accomodate complexity, systems must be designed with tolerances that make them adaptable. Like an adjustable seat— or an elastic waistband—designs that allow for minor customizations and adaptations are more likely to survive unexpected problems.

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Application to Product Management for eCommerce

Quantitative analytics are prone to the same "flaw of averages" Daniels saw in the Air Force. Meanwhile, for digital products like eCommerce sites and apps, there is great variability in how individuals access and interact. Consider the following variables:

- Device variability (laptop, desktop, tablet, smartphone),
- Intra-device variability (iOs or Android; Windows, OS X, Linux),
- Intra-OS hardware variability (Over 24,000 different Android devices estimated),
- Browser variability (Chrome, Firefox, Safari, others),
- Screen resolution differences,
- Window sizing preferences,
- more ...

If you run a few iterations of the above variations, you get an unfathomably differentiated population. The average—like taking the average of an apple and an orange—is meaningless.

Yet for eComm PMs, it's often the only thing you have to analyze.

The fortunate eCommerce product managers turn to UX research and usability tests. Having users run through a series of steps can be illuminating in understanding where the product can adapt to the user—or where it gets in the way and breaks their experience. Alternatively, again, technology like FullStory's session replay can be used both at the quantitative and the qualitative level. Segmenting users in FullStory by their online behaviors to analyze aggregate trends can help reveal problems and opportunities. From there, taking a closer, qualitative look by replaying a set of sessions can show just how the subset of customers is engaging throughout their buying experience. By marrying these two approaches in one tool, you ensure you don't fall victim to the "flaw of averages."

Once you're armed with a robust, nuanced understanding of your shoppers—one that mirrors the variability in your customer base—you can begin to create an eCommerce shopping experience that respects those variations. You can build a product that has the necessary flexibility to meet your customer's needs.

Whatever you do, make sure you don't lock yourself to a specific measurement dimension. Pay attention to the nuances across your user base and continue to strive for a balance between the quantitative and the qualitative.

Conclusion

Perfecting Your eCommerce Product Management Process into the Future

With customer expectations rising higher and higher, if you want to build a delightful online shopping experience, you have your work cut out for you.

You must understand what your customers really want.

And just asking them can only get you so far. You must understand your customer's needs in a way they haven't even articulated—as with milkshakes and their strange role of being a commuter friendly breakfast food.

You must acknowledge and work around problems of perception and communication. You have to coordinate efforts across all the teams working on the eCommerce experience. You'll have to push hard to align perspectives and priorities. And whenever possible, seek out tools that remove friction from this process and help teams align towards common goals.

You must measure results at the quantitative and qualitative level, respecting the variations and complexity of your users. Armed with these nuanced insights, build a powerful and adaptable eCommerce buying experience that just works.

As an eComm PM, you must bring to bear a simple process that creates an incredible digital shopping journey from shop to ship. We know: easier said than done.

Empower Your Process

The eCommerce product managers of tomorrow have no choice but to seek out and find new ways and new tools to empower their teams—tools like **FullStory**.

fullstory

What's the story with FullStory? **FullStory is a unique digital analytics platform** that brings together the qualitative power of session replay and the quantitative power of behavior-based analytics. Integrating across the most popular SaaS tools like **Intercom, Shopify, Jira**, and <u>loved</u> by companies like **Jane.com, Wistia, Moosejaw, ThredUp** and thousands more, FullStory stands ready to unlock previously hidden insights about your actual users and their very real needs ... all while getting everyone in your organization working off a single source of truth.

You can learn more about FullStory at <u>www.fullstory.com</u> and even try it out with a free 14-day trial.



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