

# THE PRODUCT MANAGER HANDBOOK

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Compiled by Carl Shan  
Designed by Brittany Cheng

# INTRODUCTION

“What in the world is Product Management?”

It was the above question, and my burning desire to learn the answer, that sparked the creation of this handbook.

You see, the inspiration for this handbook came when I was hired as an intern Product Manager in a large education technology company. At that point, although I had successfully impressed the interviewers with my background and passion for education to secure the job, I still had relatively little idea what it really meant to be a Product Manager.

Worried that I wouldn't be able to excel in my role, I decided to spend the few months until my internship connecting with, interviewing, and learning from some of the best Product Managers in the field.

Fortunately, I was able to get in touch with some of the most brilliant, thoughtful and helpful individuals working in Product Management. Hailing from companies like Google, Facebook and Microsoft, these Product Managers not only agreed to share their insights with me, but they also generously gave permission for their thoughts to be included in this handbook to be distributed publicly with the entire world.

What you have in front of you are the distilled and polished gems of wisdom that were unearthed during the course of all these conversations.

This handbook provides invaluable insight for anyone interested in working as a Product Manager or who simply wants to learn about what it takes to build an excellent product. In reading the conversations contained here, you will find career advice, product advice and even life advice.

My dream is that the insights contained within this handbook will serve as inspiration for people everywhere to create amazing products that improve the world.

Enjoy.

Carl Shan

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# HOW TO GET A JOB AS A PRODUCT MANAGER

Gayle Laakmann McDowell and Jackie Bavaro

People go to medical school to become a doctor and law school to become a lawyer, but what do they do to become a product manager? Business school is one option, but there are many others. Product management jobs are within reach of new graduates.

## How do you get into Product Management straight out of college?

Big tech companies like Google, Microsoft, and Facebook are always hiring new grad product managers<sup>1</sup>. Write up your résumé and head to your school's career fair to chat with the recruiters.

If these companies aren't recruiting at your school, you'll need to network. Find friends who can connect you with a recruiter, or try to connect with employees from the company using Twitter, Quora, LinkedIn, or their blogs. Many employees are happy to refer people who have shown a genuine interest in the company and have a strong resume.

Some startups will also hire fresh college graduates into Product Manager roles, but this is more unusual. Typically, to land such a role, you'll have to really stand out as a PM candidate and get your foot in through your personal / professional network.

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<sup>1</sup> Note: The name of this role might differ from company to company. Microsoft hires many new grads for Program Manager roles, which is the equivalent of other companies' product manager roles. Microsoft also has a Product Manager role, but this is more of a marketing function and is usually not entry level. Google has an entry-level role called a Associate Product Manager and a more senior role called a Product Manager.

### How do you get a Product Management internship?

Product Manager internships are obtained the same way that full-time PM roles are: through career fairs and networking. The big tech companies tend to have PM internships, but the smaller companies do not.

### What if you can't get a PM internship?

If you can't get a PM internship but desperately want to be a PM, never fear! You can still get a lot of relevant experience that will help you in your path to be a PM. Consider the following paths.

#### Option 1: Do a software development internship.

Companies would ideally like their PMs to have strong technical skills, so a software developer internship is a good time to boost your skills here. During your internship, look for ways to show leadership. Can you volunteer to write up the spec for a new feature? Analyze data that you've gotten from customers? Maybe run a few meetings? Doing these things will help you demonstrate PM talent.

But should you go for a startup or a big company role? Both can be good paths.

A big company will stick an excellent name on your resume, and give you an "in" with a recruiter at that company. That could be very useful when you look for a PM role the following year.

On the other hand, startups often have less defined roles – and lots of work to be done. They are moving fast and the upcoming features may not be fully fleshed out. Guess who gets to define them? The programmers. In this situation, you aren't a programmer; you're a "programmer++." You have the opportunity to take on PM-like responsibilities even as a software developer intern.

#### Option 2: Build a side project

Just because you're a student doesn't mean you can't be an entrepreneur — at least on your own side project.

If you have coding skills, you can build your own web or mobile application. This means that you're developing your technical skills and your leadership and analytical skills. You are acting as a developer and a PM.

Need money for your summer work? No problem. You can do software development consulting by taking on projects from Elance and oDesk.

If you don't have coding skills, you could use your summer to learn to code, you could partner with an engineer, you could (if you have the money) outsource development on oDesk

or Elance, or you could launch something that doesn't require programming. There is a lot of off-the-shelf software to help companies in specific niches.

Building a side project is an excellent path for freshmen and sophomores who might otherwise have trouble obtaining an internship. Give your project a snazzy name and you might even be able to list this under your resume's employment section, with you as Founder / CEO.

### What do recruiters look for in PM candidates?

The background of the "perfect" PM varies across companies and even teams, but usually has the following attributes:

- Leadership
- Analytical & Data Skills
- Technical Skills
- Initiative
- Product Design Skills & Customer Focus
- Strong Work Ethic

Note that this is the perfect PM. Even many experienced industry PMs will be missing some of these attributes.

This can be a useful framework to approach your experience and resume from. How can you demonstrate that you have these skills? If you don't yet have these skills (or haven't yet done something to demonstrate that you do), how can you develop these skills?

For example, a student from a strong school with a major in Computer Science and a strong GPA might get a phone screen just by handing in her resume. Her major shows technical skills and her GPA is a signal of work ethic. However, her resume would be even stronger if she had launched a programming contest on campus. That shows initiative.

Although some of these attributes sound "fluffy," they can all be demonstrated through concrete actions.

- Leadership? Become a president of a club or lead an organization.
- Analytical / data skills? Quantitative coursework (computer science, math, physics, economics, etc) can demonstrate you know your stuff here.
- Technical skills? A Computer Science major or minor will do the trick. Or you can learn to code and list some projects you've done on your resume. Or, even if you don't know how to code, you can at least maintain your own website.
- Initiative? Do some side projects for fun. Launch a club. Organize a school-wide volunteer effort.
- Product Design skills / customer focus? Focus on creating a beautiful application — and provide screenshots on your resume. If the aesthetics of application design aren't your

## HOW TO GET A JOB AS A PM

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thing, get a friend to help you out with it, while you focus on getting a feature set that really addresses your user's needs.

- Work ethic? A good GPA, a bunch of projects, or basically anything difficult that you've been successful in shows work ethic. One student listed on his resume that he "completed 62 miles of a 100 mile ultra-marathon, after getting injuring ankle on mile 30." This might not have been the most medically sound decision, but it did show perseverance. (Yes, his interviewers asked about this!) He's now working his butt off as a PM for Apple.

Demonstrating these doesn't mean demonstrating them all separately. In fact, a single side project could show all five of these aspects.

Once you've made good progress with some of these aspects, add what you did to your resume and apply for a PM job. As you meet with people, talk about what you did and the choices you made. You've just created PM experience for yourself!

**Cracking the PM Interview is now available on Amazon! Get it [here](#) today.**

*This advice to aspiring Product Managers was kindly contributed by Gayle Laakmann McDowell, author of "Cracking the Coding Interview" (and ex-Google, Microsoft, and Apple engineer), and Jackie Bavaro, a Product Manager at Asana (and ex-Google and Microsoft PM). You can learn more about their thoughts on how to land and excel in a Product or Program Manager job and interview through their new book "Cracking the PM Interview," which is available on Amazon [here](#).*

# JEREMY CARR

Director of Product at ClearSlide

## JEREMY'S BACKGROUND

Jeremy is the Director of Product at ClearSlide, where he focuses on data and analytic products. ClearSlide is a sales engagement platform that helps to close more deals faster. Previously, he held product leadership roles at Palantir, Stylemob (acquired by Glam), and Videoegg (now Say Media).

He earned an MS in management science and engineering from Stanford and BA in computer science and economics from Carleton College.

## SUMMARY OF JEREMY'S INTERVIEW

In his following interview, Jeremy shares:

- The thought experiment Product Managers can use to figure out what skills to build
- The 5 top career metrics he uses to track his own success
- Specific product design skills to learn as a Product Manager
- His thoughts on the potential conflict between ambition and contentment
- And more...

Read on to learn more from Jeremy!

## JEREMY'S ANSWERS

**In your opinion, what are the goals and purpose of Product Managers? And as someone who is not coming from the engineering side of things, what are some of the most valuable skills I could develop in a 3-month internship as a Product Management intern?**

In terms of understanding the goals and purposes of a PM, I would suggest reading Ben Horowitz's piece on ['Good Product Managers, Bad Product Managers.'](#)

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### How will you contribute?

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As for skills, I would recommend to start developing yourself on the design side of product (ability to prototype), and/or the technical side of product (substantively know what you're talking about; be able to estimate how long things will take and think through details).

A useful heuristic to use in thinking about this is to imagine there just being two people on the product team: you and a developer. How would you contribute? This thought experiment distills more clearly the skills you might be interested in developing to build a solid foundation, whether you stay working in startups or not. Another approach is to think of a team that is comprised of yourself, five developers, one designer, and one QA person. Now how will you contribute? Communication, organization, GTD, and good project management become more relevant.

Specific design skills that are worthwhile to pick up would be to look into wireframing (e.g., using tools like Visio, Balsamiq), fundamental UX principles and design (higher-resolution mockups; concepts of user flow), graphic design (Photoshop or Illustrator), and potentially learning JavaScript (AJAX and jQuery are pretty important), etc.

Additionally if you're looking for principles on a life well lived, you should check out Ray Dalio's "Principles". He's someone who's done a lot of deep thinking on this. Another book I would recommend is Peter Bevelin's "Seeking Wisdom".

**What could an intern or newly hired Product Manager do to add value as quickly as possible?**

Domain: within first few weeks, try to find a project with measurable impact you want to deliver on over the course of your internship. Then make sure that you execute on it.

Skills: each product management opportunity is different, but functionally, they're typically design (information architecture, UX, or graphic design), development/spec'ing (detail-orientation, learning to work with engineering, etc), or project management (ticketing, prioritization, etc). Make sure that you leave the internship having built some of these skills.

Personally, I also think you should use this to assess what you enjoy doing on a day to day

basis. It's hard to maintain focus and discipline if you're working on a part of the stack that you don't find engaging.

### **What mental models or criteria do you use to judge the success of a product?**

On the business side, there are many books on KPI's. Familiarize yourself with those concepts. Be clear about how the feature/product is contributing to the overall success of the company. Ask yourself "if this were wildly successful, what would that look like?" Important to consider whether the feature/product you're working on is an experiment or an incremental improvement; will drastically change how you evaluate its success.

Assessing the technical quality of a product is tricky from a product standpoint. You certainly need to ensure the user flows make sense, and that no "bugs" that are actually unintended consequences make it into your designs. Beyond that, a lot of the technical merit of your product will rely on the technical team you work with, and an engineering manager. Concepts like regression testing, test driven design, uptime, dev - staging - launch process...are all useful technical concepts to stay on top of.

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**Ask yourself "if this were wildly successful, what would that look like?"**

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### **What are the metrics you use in measuring your own success? Which ones are the highest priority, and why?**

1. Product: Am I effectively balancing the interests of shareholders, customers, and employees? Can I build a roadmap that captures the vision of the executive team/customers? Can I get consensus and/or buy-in for that? Can I deliver on time with good quality?
2. Leadership: Can I motivate my team? Can I point folks in the right direction? Can I remove roadblocks from them quickly and effectively?

Three additional things I will say are good rules of thumb to follow in tracking your own career are:

1. Focus on the quality of people you're working with. That's why I joined Palantir and am still invested in the alumni network, as well as ClearSlide. The people I work with are amazing, and I'm sure will be doing some incredible things in the future. With good company, no road is long.
2. Look at the individual contributions you can make. What skills are you building? For example, as a PM who may not be coming from an entirely technical background, it would be valuable to deeply understand marketing and distribution channels.
3. Have a personal narrative that you feel comfortable sharing with others, as well as internalizing. You should be able to tie together a cohesive story. The things you pursue in the future should in some way be compounding upon the things you've done in the past. Look at the amount of opportunities you receive to learn new things.

For me personally, I try to stick to thinking about the short and medium term. I look at things in the 3 to 5-year range. I find it hard to plan beyond that, and consider life an endless sequence of emergent effects. For some people, they have a life goal such as becoming VP of Product at Amazon. And that may work for them. But I think there's a lot of serendipity in life, and I'm very much open to possibilities that I can't imagine right now.

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### Focus on the quality of the people you're working with.

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entails, try to make it something you're genuinely enjoying.

I think if you're engaged day to day in your role, things are more likely than not to turn out for the better. I am not a fan of living a deferred life plan, which is the notion of putting off today what you really want to do in favor of some things you think you "need" to do. So whatever it is that your career

**I have friends who tell me they're uncomfortable deeply valuing happiness and contentment in their own lives as they are concerned it will stifle ambition. Do you have any thoughts here, especially in the context of you've just mentioned about enjoying every day?**

Is happiness and contentment really at odds with ambition? I think people frequently confuse contentment and happiness for its more malicious relative — complacency. Complacency leads to the stifling stagnation that results in dissatisfaction down the road. Fundamentally, ambition is a strong desire to achieve something; from a scientific mindset it's as simple as wanting to solve problems and answer questions.

There are also some companies that I think we can agree are very ambitious companies, all while maintaining a sense of play. I think some of the most successful companies in the Valley are great examples of successfully implementing this type of culture. Facebook and Palantir are two examples. Learning from these examples can help us to better understand why happiness doesn't necessarily conflict with ambition. I embrace goal-oriented environments, which can be hard charging but I ultimately find fulfilling.

When I speak with older professionals or more successful professionals, one thing I notice is that they've largely figured out their work/life balance. There are two types of hard work that entrepreneurs (or really anyone) tend to be engaged in:

1. Sustainable hard work
2. Unsustainable hard work

You may be able to maintain the unsustainable kind for months, or even years. But I'd urge such a person to at least note its impact on one's life — it probably looks like living a shitty life right now. So I'd encourage folks to find sustainable work. Keep in mind that, with all of these things (startups, success, life), it's a marathon, not a sprint.

I guess I have a different perspective on this than many Silicon Valley technologists because I travel a lot and have seen a lot of alternative ways of living that are outside of the Silicon Valley bubble.

**I've often heard the advice that I should do a "technical" job first for a few years before jumping into PM, because it's hard to switch back to a "technical" job (such as programming, designing) after doing a PM role. What do you think of this advice? Is it a good idea to jump right into the PM role after graduation, or is it better to do a regular role first and move in to the PM role?**

There are different types of PMs. At a small company, Product Managers need to be able to contribute to real product creation. At larger companies, not necessarily. But generally, the more technical you are, the better (it gives you a leg up against the army of MBA's that also want to be PMs). How will you differentiate yourself if you do a PM role immediately after graduation?

# JASON SHAH

## Product Manager at Yammer

### JASON'S BACKGROUND

Jason is a Product Manager at Yammer, where he focuses on building out new features for the leading enterprise social network. He is also the founder of HeatData, a mobile web heatmapping and analytics tool.

Prior to Yammer, Jason founded INeedAPencil.com, which provides free online education tools to students from low-income families. After growing INeedAPencil.com to more than 50,000 users with an average score increase of 202 points, Jason sold INeedAPencil.com to CK12 in 2011.

Jason holds an AB with honors from Harvard College with degrees in sociology and computer science. He blogs regularly at [blog.jasonshah.org](http://blog.jasonshah.org) and tweets shorter thoughts at [@jasonyogeshshah](https://twitter.com/jasonyogeshshah).

### SUMMARY OF JASON'S INTERVIEW

In his following interview, Jason elaborates on:

- A story that illustrates the goals of Product Managers
- The 3 important skills for interns to learn
- How a Product Manager could compensate for a non-technical background
- And more...

Read on to learn more from Jason!

## JASON'S ANSWERS

**In your opinion, what are the goals and purpose of Product Managers? What are some of the most valuable skills that a young intern aspiring to be a Product Manager could develop?**

The goal of Product Managers is to help a team build the best product possible - through prioritizing what to work on, helping design beautiful user experiences, guiding engineering to avoid roadblocks while leaving them autonomous, and working with all other parts of the organization to provide transparency and input into the product development process.

One way to look at it is to see that part of the role is to make engineering go faster.

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**You want to empower the engineering team.**

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Overall, you want to empower the engineering team, the designers, the analytics team, etc. Your job isn't as concrete as other disciplines, so you need to be good at supporting those other roles.

A story that illustrates the points made above relates to something that I worked on recently at Yammer. This feature allowed users to mention Pending Users. Pending Users are people who began to sign up but haven't activated their accounts yet. Now, just thinking about this, it's not a particularly inspiring feature. The name of the feature is quite boring, admittedly. But it's a crucial one, and you need to, as Product Manager, be able to have the vision to see its power and explain why it's such a valuable part of the product.

For example, I framed it in terms of the larger vision of connecting employees and accelerating collaboration. It's important to be able to communicate with (via mentioning) people in your company, whether or not they are registered for Yammer, and we can never replace email until we nail that. With that vision, people could easily see the value in what we were building.

As an intern, it's going to be especially difficult to be a successful Product Manager, because you're in a ramp-up period of three to six months before you really get the hang of things. So for valuable skills, I would say:

1. **Prioritization:** This is hard as a PM. With limited resources and a backlog of projects, you need to make sure you identify the highest-impact projects to work on. Your choice of prioritization impacts everything: what gets built, how the rest of the product is affected, the morale of the teams working on the feature. You should be using data, user research, product vision, and an understanding of engineering costs to help prioritize features.
2. **Vision:** Anyone can come in and suggest we move a pixel here and a pixel there. Where do you see the product going in three to five years? What about the product today is being missed by our users? How do we turn a moderately successful app into a sensation?
3. **Analytics:** PMs today need to be data-informed. You should be looking at how people use your product and generating ideas there (in addition to more green-field brainstorming).

You should be measuring the performance of features rigorously and only releasing what does well and killing what doesn't.

**I've heard that it's heavily preferred for Product Managers to have technical backgrounds (e.g., they've previously been engineers). What advice would you give to someone who may not have as much of a technical background but is still aspiring to work as a Product Manager?**

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**Your choice of prioritization impacts everything.**

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The reason it's valuable for PMs to be technical is because it allows them to make good tradeoffs. Technical PMs understand engineering costs. As a result, these PMs can make better decisions about what will return the greatest benefits for the least costs and how to build true MVPs (minimum viable products).

So while you need not be completely technical, you have to be able to build credibility and then complement it with actual skills. So the fact that you have some rudimentary understanding of computer science will help you avoid any large faux pas.

Ideally, you want to position yourself to be in a company working with engineers who also have some product sense so that you don't need to dictate every last detail.

If you are not technical, try to pick up some understanding of basic concepts: performance, frontend and backend, APIs, etc. There is no way around this.

Sit with your engineering team to understand how they build and what their key constraints are. Try to unblock them. When you have a feature idea, get engineering input. Over time you will learn what is expensive and what is cheap (in engineering terms). When something is expensive, you want to aim to build a minimum viable product to validate your idea early or have an extremely good justification of the engineering investment.

The point is that you should be making intelligent decisions that others will respect, regardless of your level of technical background.

**As an intern, I'm concerned about the level of impact I can have in just three months at a company. I want to learn a lot, and think I will, but I also want to get a chance to actually make an impact. How did you spend your first three months in your first PM role, and what would you do differently if you could redo it?**

My first three months were spent largely in shadowing other Product Managers, studying what's good and bad about our product and competitors', and understanding how our product development process works.

If you want to maximize your learning and growth as someone who's aspiring to be a Product Manager, I believe you should shadow other folks on the product team — PMs, designers, even engineers. Understand how people work. It will help you figure out how to be effective.

Another thing I'd say is to research what the product has been in the past: try to understand how the team got to where it is today. What was the MVP version of this product? It will show you what has been prioritized in the past and how the team is thinking today. Check out past A/B tests that they ran to better understand what's been changed and how certain hypotheses worked or failed.

**What are some mental models you use to view the quality of a product? In other words, what are the criteria you use for judging how successful a product is?**

At a high level, I ask myself: "What is the user's goal?" and "How hard does this product make it to accomplish that goal?" It shouldn't be that hard to get done what you need to get done as a user. If it's Airbnb, it should be easy to book a good place to stay. If you're Uber, it should be easy to get a black car fast. If you're Google Search, it should be easy to find the right information.

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**Deeply engage with and listen to the senior product people on the team.**

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From a metrics standpoint, you can also measure a product by the following:

1. **Retention:** But also understanding the nuances within retention (e.g. one day vs. seven days vs. six months).
2. **Engagement:** Level of interaction and the durations that people are on Yammer.
3. **Virality:** How many new users are our current users inviting and converting.

# LUKE SEGARS

Product Manager at Google

## LUKE'S BACKGROUND

Luke got his bachelors and masters degrees in computer science before stumbling upon a Product Management internship at Google. He spent a summer working on search ads and decided that he really enjoyed the work and wanted to continue. He's now at Google full time and has worked on search and YouTube products.

## SUMMARY OF LUKE'S INTERVIEW

In his following interview, Luke raises many thoughtful points, including:

- The top 3 most important objectives are as a Product Manager
- Whether a technical background is necessary for success at Product Management
- The most valuable skills to learn as an aspiring Product Manager
- And more!

Read on to learn from Luke!

## LUKE'S ANSWERS

**In your opinion, what are the goals and purpose of Product Managers? What are some of the most valuable skills that a young aspiring Product Manager could develop?**

The job of a Product Manager is to identify real world problems and to come up with ways to solve them. It's an inherently social job because (1) the best solutions rarely come from one person and (2) successful products aren't developed in a vacuum. It also requires a degree of scrappiness — a lot of things go into making a successful product and there isn't always an obvious person to do everything. The PM can often pick that stuff up.

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**Identify real world problems and come up with ways to solve them.**

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The most valuable skills that you can learn in an internship are going to vary a lot. For me:

1. What goes into developing a product outside of coming up with an idea and building it? Hint: there are lots of answers.
2. How to pitch an idea, and how to tell a good idea from a bad one. What makes an idea stick? What makes a project succeed or fail aside from the capabilities of the individuals that are involved?
3. Learn how to structure your thinking. Many creative people are able to explode forth with creative ideas. Coming up with a meaningful and communicable structure for those ideas is at least as important as coming up with them in the first place.

**I've heard that it's heavily preferred for Product Managers to have technical backgrounds (e.g., they've previously been engineers). What advice would you give to someone who may not have as much of a technical background but is still aspiring to work as a Product Manager?**

Talk with engineers. Find people who are willing to spend time explaining things and soak it all in. Having technical experience is important but having an interest in and appreciation for development is really important as well. I wouldn't try to fake it, but just make it clear that you're interested and I bet you'll be able to find people who can teach you.

**What advice would you give to a young Product Manager just starting in his or her role? How could they allocate their time and energy so as to make a meaningful impact in the first few months of the job? How did you spend your first few months in your first PM role, and what would you do differently if you could redo it?**

I created a new ad format for Google search, specifically targeted at music labels. There was a

ton to learn and, at least in my case, a ton to do. One of the things that I did well was pushing beyond my comfort zone to do things that needed to be done and make fast progress on my project.

One trap I've fallen into since I've come back is accepting too much work. Here is how I would rank your objectives when you start if you're actually interested in product management as a career:

1. Learn.
2. Do high quality work.
3. Do lots of things.

Unfortunately it's really, really hard to do all three well. Product Management is an extremely flexible field with a lot of different required skills, so investing explicit effort into improving some of those skills is likely to make the rest of your life much, much better.

**What are some mental models you use to view the quality of a product? In other words, what are the criteria you use for judging how successful a product is?**

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**How useful is the product vs the next best thing?**

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That depends a lot on the product. My favorite criteria: how useful is this product vs the next best thing? A product that helps rural farmers in under-developed regions find places to sell their crops can have a tremendous impact compared to a watch that let's you check text messages two seconds faster than you would on your phone, though the latter is shinier and likely to make more money.

On the other hand, money isn't something to be discounted. Currency, I suppose, is one of the signals we have to measure the quality of a product in the public eye, though I think that's a simplified view of the scene in many (potentially dangerous) ways.

**Who are Product Managers in your field that you admire? What traits do you admire about them?**

There are a number of people that I've met at Google that I admire. Some of the ones that stand out work as PM's and lead engineers. One of the most admirable qualities that I've encountered is when these people have a very strong sense of what direction a product should take and are able to articulate that reasoning clearly. This is an important skill and in my opinion a pretty tough one as well.

**What are the metrics you use in measuring your own success? Which ones are the highest priority, and why?**

1. Quality of relationships with peers.

2. Regularity of high-quality product releases.
3. General organization on a day to day basis.

I'd say I evaluate myself primarily along those criteria, and roughly in that order. This one probably varies more than any of your other questions depending on the company you work for and particular product within that company.

**I've often heard the advice that I should do a "technical" job first for a few years before jumping into PM, because it's hard to switch back to a "technical" job (such as programming, designing) after doing a PM role. Do you think it's a better idea to jump right into the PM role after graduation, or should I do a regular role first and move in to the PM role?**

I don't have any experience to base it on but I got the same advice. I've found my technical knowledge to be adequate for getting by with a very technical team. It undoubtedly would have helped to do some actual engineering for a while, but it's not clear that it'd be more useful than a year or two of product experience. I think the underlying critical bit is to BE CURIOUS and CONTINUE TO LEARN. If you do that then I don't think skipping the engineering step is a huge mistake.

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**Investing explicit effort is likely to make the rest of your life much, much easier.**

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# LILY HE

Product Manager at Work Market

## LILY'S BACKGROUND

Lily graduated from MIT with bachelor degrees in math and finance. After graduation, she worked in trading and consulting before transitioning into product management at Work Market, where she works currently.

## SUMMARY OF LILY'S INTERVIEW

In her following interview, Lily shares her experience on:

- Her atypical background and what led her to Product Management
- What's unique about being a PM at a startup
- The techniques she used to switch careers into Product Management
- And more!

Read on to learn more from Lily!

## LILY'S ANSWERS

### Can you talk a little bit about your background and what led you to product management?

My path to product management is atypical. With a background in finance and math, I had worked in trading and consulting before joining the product management team at Work Market. While being on the trading floor is often exciting and nerve-racking, I have always been interested to be part of a growing business that is constantly innovating and building products that customers will love. I first transitioned from trading into consulting — you may call it a “safe” switch — in order to build my business analytical skills and intuition. However, I quickly realized that I wanted to be more proactive, rather than just advising clients on solutions and ideas, and become more actively involved with the product, tactics, and strategy of single company; thus, finding my way to Work Market.

### What is Work Market?

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**I wanted to be more proactive and more actively involved.**

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Work Market is a cloud-based contractor management platform that is connected to an online marketplace of professionals seeking work assignments. Built to allow scalability, increase productivity, and enhance the quality of both contractors and the work that they fulfill, Work Market enables

enterprise organizations to do more than take control of skyrocketing operating costs — it empowers them to actually reduce costs and drive efficiency into their business.

### If you were standing in a first-grade classroom and had to explain to the students what a Product Manager is, what would you tell them?

A Product Manager is someone who takes an idea and brings it to reality. They use all the tools they have at their disposal to turn their idea into a product that their customers would love and need.

### What are some roles and responsibilities a Product Manager has at a company?

First and foremost, a Product Manager needs to be passionate about the product that they are building. Their typical tasks include: writing specifications, prioritizing features, conducting user research, analyzing data, coordinating communications, amassing executives buyin. A Product Manager needs to be able to break a complex project into manageable tasks and prioritize their executions by working closely with the engineering, marketing, and sales team.

**Before going into Product Management, did you have an engineering background?**

Although I did not have software engineering background, I do have a strong analytical background, especially studying in math and working both finance and consulting. Having a strong quantitative skills is becoming increasingly important as we rely more on data analysis to make our product decisions.

**What do you believe is unique to being a Product Manager at a startup instead of a large company?**

When you are on the product team of a small startup, everyone is a generalist because the product is too young for specialization. For me, this generalization has been the best part about working at Work Market. Not only do I write specifications, I also focus on user design, data analysis and some front-end coding as well. Eventually, as the company and the product team grow, it will become necessary to have a team hierarchy and for each PM to own a specific vertical of the product.

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**When you are on the product team of a small startup, everyone is a generalist.**

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**What advice would you give someone who is coming from a non-engineering background and is interested in product management?**

Switching careers in general can be a challenging task. First, network as much as possible in the industry or field, product management here, that you are interested in by talking to friends, friends of friends, alumni. Usually, you'll find your job opportunities through one of those connections. But if not, you should browse job boards and VC websites because most VCs list job openings at their portfolio companies. Personally, I've found the VC listings very helpful. Most importantly, you should know your story well. Why are you interested in Product Management? What skills can you leverage from your existing experience? How would you contribute to the team right off from the start? Knowing your story will be key to convincing your interviewers that they should hire you over someone who has existing experience in PM.

**Do you think there is anything particularly unique about being a woman in Product Management?**

While engineering is in fact a male-dominated field, I have never encountered any gender-related issues — a caveat, my experience is limited to Work Market and thus, I don't think I have enough experience to speak generally about this topic.

**Do you have any advice you would give to young individuals who are aspiring to work as Product Managers?**

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**If possible, work in both small and big organizations.**

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If you are still in college, I would recommend doing an internship in product management. Product management roles and responsibilities can be very different depending on the size of the organization. Thus, if possible, work in both small and big organizations to figure out what type of product management that you would like to do.

Also, take classes that will help build the skills that you'll need in product management such as design, user interface, and statistical analysis.

Lastly, don't be afraid to reach out to firms that you are interested. Use your alumni connection if it exists.

**What are some specific things you've done to develop the skills you believe a successful Product Manager needs to have?**

For me, I focused on learning everything about user interface and user design first since I did not have a product background. I've also become pretty proficient with HTML, CSS and a little bit of jQuery. As a small product team, we try to help out our engineering team as much as possible. So we frequently dig into the code and make small design tweaks and interface changes.

Additionally, data analysis skills (using either SQL, Excel, Python or R) are a must so that you can analyze your data to help you make better product decisions or run occasional ad-hoc analysis. Conducting A/B testing and user research is also key to making good decisions.

Lastly, the ability to take feedback critically and effectively coordinating among various internal teams are among some of the other skills that I've developed on the job.

# SUNIL SAHA

CEO of Perkville

## SUNIL'S BACKGROUND

Sunil graduated with a bachelor's in human biology from Stanford. He then went on to join a medical device company before moving into a market research firm (which also specialized in medical devices). Afterwards, he joined Neoforma, an internet company, where he fell in love with the internet space and began his first foray into Product Management. From Neoforma, he moved on to being a senior Product Manager at both Yahoo! and LinkedIn.

Now he is the CEO of Perkville, a startup he co-founded in 2010 that is trying to eliminate loyalty cards.

## SUMMARY OF SUNIL'S INTERVIEW

In his following interview, Sunil touches upon:

- What Product Managers should focus on early in their roles
- The top four metrics he uses to measure success
- Valuable things to do as a young Product Management intern
- And more!

Read on to learn more from Sunil!

## SUNIL'S ANSWERS

**In your opinion, what are the goals and purpose of Product Managers? What are some of the most valuable skills that a young aspiring Product Manager could develop?**

The main goal of a Product Manager is to improve the business. Whatever the bottom line may be, your goal is to move it in a positive direction.

If you're joining the team in a short term role such as an internship, then it'll be difficult to make a big impact. If I were doing an internship in product management, I would focus on one project and release it from start to finish. Try to get a feature out that has a meaningful impact on the business. This experience will teach you how to lead a team.

Typically, as a Product Manager, no one officially reports to you, but you still need to muster the charisma and resources to lead.

Doing something like owning a product is valuable during a stint as a Product Manager because it's very results-oriented and actionable. It'll teach you leadership and how to scope down to a feature to the bare minimum and hopefully release it within a few weeks.

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**Whatever product you're working on, make sure it's measurable.**

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A lot of PMs are not good at scoping things down to a small chunk.

And when you go through the internship, whatever product you're working on, make sure it's measurable. A/B test new features for increased retention, engagement, and whatever other metrics you're testing against.

**I've heard that it's heavily preferred for Product Managers to have technical backgrounds (e.g., they've previously been engineers). What advice would you give to someone who may not have as much of a technical background but is still aspiring to work as a Product Manager?**

I actually don't think you need a super technical background to be a good PM. However, you do need to understand data. You do also need to be able to do some basic querying, such as via SQL. That way you can speed up the analytical process because you can run the queries yourself without having to go through someone else to get information.

But as long as you have a good mind for numbers and statistics, you should be in good shape.

Remember that the engineers are there to do the coding. You, as the PM, are there to drive the business forward.

## What would be some valuable things for Product Managers to focus on early in their role?

One thing I would be is extremely skeptical about the feature ideas that people have. Eighty percent of ideas that people come up with probably won't yield good results. As a Product Manager, start with this assumption — be extremely skeptical about the features you work on.

Of the 80% of ideas that flop, I would say 80% of them flop because they are just plain bad ideas. 20% of them flop because of execution. So focus on ideas, yet still be skeptical of them.

Analyze the data, understand the customers (e.g., look at customer support tickets), make an effort to interview customers to look at the problems people are having.

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### Focus on ideas and yet still be skeptical of them.

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As a new Product Manager, it would be valuable to first look at the product's historical metrics to see how they've been growing over time. Look at past projects, what's been successful, what hasn't. Doing these things will yield valuable frameworks upon which you can build your own experience.

## What are some mental models you use to view the quality of a product? In other words, what are the criteria you use for judging how successful a product is?

The top 3 criteria that are used, almost de facto, at any company are:

1. Revenue — pretty self-evident
2. Usage levels and frequency (MAU, DAU)
3. Growth of product (number of users)

For an education product that you may do an internship on, there's probably more specific metrics such as whether it's improving test scores.

## What is the most unique skill you've seen a PM have that made them exceptional?

I would say the ability to develop the simplest solution to a problem possible as described here: [The One Cost Engineers and Product Managers Don't Consider](#).

Complexity adds development, maintenance, implementation, training, etc cost so keeping it simple is very important.

One example of a Product Manager who did an exceptional job of this is Marissa Mayer, who kept the Google home page simple and clean despite what I'm sure was immense pressure to leverage its traffic for other Google properties.

**What are the metrics you use in measuring your own success? Which ones are the highest priority, and why?**

Now as CEO, I've realized that this is the best training to be a better Product Manager. And to be honest, Product Management is great training for becoming a CEO. As CEO, I use look at several metrics, but most important in my current startup are ...

1. Growth in or toward profitability as a function of ...

- a. Revenue growth
- b. Gross margin improvement
- c. Customer acquisition cost
- d. Churn reduction

2. Runway for the company as a function of ...

- a. Cash in the bank
- b. Monthly burn rate

3. Market share

4. Customer support satisfaction

# SEAN GABRIEL

Program Manager at Microsoft

## SEAN'S BACKGROUND

Sean is a Program Manager on the Xbox Music, Video and Ads team. Starting from a hobbyist background in web development, he interned as a PM on the Microsoft FrontPage team, returning to the Office division for a full-time PM position after graduating. He was a PM for several teams in Office, contributing to areas like human workflow and classroom education, before joining the Xbox division to build multimedia experiences. On the side, he's also moonlighted for a startup focused on structured debates. Sean graduated with a B.S. degree in Electrical Engineering and Computer Science from UC Berkeley and has been a PM at Microsoft for almost seven years.

## SUMMARY OF SEAN'S INTERVIEW

In his interview, Sean covers:

- How Microsoft's PM role differs from other companies
- What he's learned from the mistakes he's made
- Whether you should jump into a PM role immediately after graduation
- And more!

Read on to learn more from Sean!

## SEAN'S ANSWERS

**Can you explain the PM role at Microsoft? Why is the PM role at Microsoft known as the “Program Manager” and how do you think it compares to similar roles at other companies?**

Here at Microsoft, we separate the roles of Program Manager and Product Manager. Product Manager is a role within marketing and it's usually a less technical role focused on strategy, vision, delivering products to market, and sustaining business growth long-term.

There are elements of this in the Program Manager role, but another part of it is collaborating with the team that is actually building the product and shepherding them toward their mission. There's a mix of high-level vision as well as day-to-day work with developers and testers to build the product. Here at Microsoft, Program Managers get to own the use scenarios, defining what a feature in the software should do. We get a lot of space and freedom to own the feature, figure out what needs to be done, and make mistakes along the way.

The big deliverable for a Program Manager at Microsoft is the functional spec, defining everything that the feature needs to do to satisfy the user's needs, how it will work, how it will be built, and justifications for all decisions.

**Why do you think the Program Manager is important to a team?**

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**The PM is often the jack-of-all-trades, master of none.**

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A team without a PM is going to be very heavily focused on execution but may not know if they are going in the right direction. The big value a PM provides is being a strong customer advocate, helping people gut check: Are we going in the right direction? Are we addressing the market? Are we

being competitive? Are we relevant to the customer? We have PMs on almost every team at Microsoft to ensure that the precious time we spend coding features is what the market wants and needs.

The PM is often the jack-of-all-trades, master of none. We do a lot of talking to customers, either through customer interviews, internal dogfooding, and/or collaboration with user researchers. I once went to Oklahoma City to visit a SharePoint customer. The company was an energy company, and we learned how SharePoint was critical to getting energy to a lot of people. At the site visit, I got to see how our customers were really using our technology and how we could improve our technology to make people's jobs work better.

**What is your experience with making mistakes as a PM?**

I make mistakes everyday. Now that Microsoft is beginning to move more quickly, on a more

agile development process, I have the flexibility to fail every day. Because we're doing everything in bite-sized chunks, we can more quickly adapt to whatever is changing around us. That's not a specific answer, but I think it's important. We used to make much larger mistakes and paid a lot for them in the past. Now, as a company moving more quickly, we know it's okay to make mistakes, but we should recover from them more quickly. It's better to make a bite-sized mistake that will only sting a little, rather than chewing your foot off and taking a long time to recover.

### How has your role as a PM been changing over the last 7 years?

Some things are constant, such as the position you're in and the way you interact with people; the PM is often known as the "glue" that holds the team together. What has changed is the types of people I work with, the disciplines they're from, and how

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**The big value a PM provides is being a strong customer advocate.**

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many of them are there. This changes depending on the team I'm on, the part of the product cycle we're in, and other factors. The particulars of my role have changed, but the general idea of what I do hasn't changed much. And as you become more senior on teams, your scope of responsibility increases, where you become responsible for larger features. PMs at a higher level of the company do the same thing as individual contributor PMs, just at a much larger scale.

### What specific skills do you think make a good PM and how do you develop these skills?

I break down the PM role into pillars of design, communication, and execution.

1. **Communication:** This is tricky. Anyone can tell whether or not it's working, but it's hard to explain why or how. This is the hardest one to teach. You have to like people. That's very important for a PM. This doesn't necessarily mean you have to be outgoing or social. But you do have to be able to orchestrate people and rally them around your cause.
2. **Execution:** Attention to detail. The buck stops with you. Be aware of your accountabilities, who is responsible for what, and don't be afraid to speak up when something needs to be done.
3. **Design:** There are usually rules and constraints to get you started with design. It's very important here to have user empathy, being able to channel your customers and understand their needs. This ends with delivering a functional spec, stating your design and how it will work. In the end, it always comes back to the customer. You have to prove that what you're doing is better for the customer. You are on the team as the customer's advocate.

## What advice do you have for pushing your ideas forward as a young PM or even as an intern?

Interns are my favorite, because interns have an immunity card. Interns are immune to politics, to the pressures of the schedule beyond your 12-week internship. If you're a young PM, don't be afraid of your lack of experience. People hired you for a reason, because you show promise, and they want to see you put that to the test. You're not entrenched in office politics, so you should feel free to speak their mind.

The challenge for interns while they're here is to be able to make a big impact, not just on your own team. There are a lot of resources and people here to talk to and toss ideas around with, so make the most of it. How can you make everything happen in just twelve weeks? It starts with being confident and not being afraid to speak up and get stuff done.

## What criteria do you use to measure your own success as a PM?

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### [The PM is] the “servant leader” of the team.

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I firmly believe in the concept of the PM as the “servant leader” of the team. You're given the mantlepiece to drive design and requirements, but at the end of the day you need to go convince other people who you are not the boss of to go do the things you want them to do. So every day, I look around

me and ask, “Are people around me happy?” If they're not, especially regarding the things in my control, I might not be doing my job well. Are my developers happy? Are my testers happy? Are my leads happy? If everyone seems like they don't need me, then that's an ideal situation. It means I've done a good enough job selling the idea to them, and they will just run with it and work it out.

Long term, I measure success in terms of the scope of what I'm working on. Beyond just promotions and levels, I'm excited about being able to work on the size of problems and types of problems I'm interested in. Now that I'm working in Xbox on consumer technology, I feel like I'm in the place of my own personal passion, and I think that's a good place to be.

## Would you recommend jumping into a PM role immediately after graduation or beginning with another role such as developer or designer first?

This is an age-old question: Who's the better PM, the one who started as a PM or the one who did something else first? In my experience, I've seen both be wildly successful. There's a certain skillset that makes good PMs, and if you have it, then that's all you need to make it here.

I would say it's important to understand other disciplines so that your team can understand that you've been in their shoes. It helps if you have a technical background (basic scripting is sufficient programming experience for most PMs) so that you have a sense of what the team is talking about when you're staring at their screens figuring out an issue. I don't think you

need to have done a ton of programming before being a PM, but it's good to have a little bit of exposure.

Diversity of experience among PMs is important, too, because you can bring your area of expertise, whether it's technical, business, or design, to the team. This creates a wealth of opinions, which means more and better ideas.

**Imagine you're at an elementary school on Career Day. How do you explain to the kids what a Program Manager does?**

I would tell people that I'm a Jedi knight. Being a PM means seeing your ideas and creations take a life of their own. A lot of what the PM does is getting the ball rolling and seeing everyone that you work with take the ball and carry it over the finish line. It's kind of like Jedi mind tricks, getting people to do cool things without forcing them to do it. Almost like inception.

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**The work of a PM is kind of like doing Jedi mind tricks.**

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# DAVID SHEIN

Product Manager at Facebook

## DAVID'S BACKGROUND

David graduated in 2009 with an undergraduate degree in quantitative economics. He then spent two years at the Kansas Federal Reserve doing macroeconomic research. Most recently, David has spent the past two years working in corporate finance at McKinsey and Company.

Although he has a deep interest in technology, he does not have any direct coding experience.

He just transitioned from his role at McKinsey to work as a Product Manager at Facebook this August in their RPM program (rotation PM program).

## SUMMARY OF DAVID'S INTERVIEW

In his following interview, David discusses:

- Why he transitioned from consulting to Product Management
- How he landed a job as a PM at Facebook without a technical background
- How to excel as a non-technical PM
- And more!

Read on to learn more from David!

## DAVID'S ANSWERS

### What made you decide on transitioning from consulting to Product Management?

I came about this role in a rather serendipitous way. I wasn't actively looking into becoming a Product Manager, but Facebook had reached out to McKinsey about consultants that might be interested in a potential role at Facebook.

This surprised me because most Product Managers tend to have backgrounds as engineers, designers, CEOs, or COOs. I was able to fortunately secure a position and was hired by Facebook to become a Product Manager.

### In your opinion, what are the goals and purpose of Product Managers?

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**Understand the product that you're dealing with at a very intimate level.**

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I think that Product Management roles are about aligning resources, the user experience, a deep understanding of the customer, and the market. That generally means that even if you don't have to have a technical background, you should still understand the

language and be able to engage intelligently with your team members who are from different backgrounds.

In addition to the above, two more points that I would say are heavily important are:

1. Understand the product that you're dealing with at a very intimate level. That means understanding how people interact with your product to a very deep degree. You need to understand how they're understanding the product and their goals and frustrations.
2. Learn how to communicate effectively. You're going to have to come in and rely upon the engineers to do the coding, so you need to make sure you can easily explain what you're trying to get done and what you need to get done.

Ultimately, I think that the primary goal would be to actually ship a product.

### As someone who doesn't come from a background of engineering, what are your thoughts on working as a Product Manager at a heavily technical company?

I don't think that my lack of a technical background will hinder my ability to excel. When I was learning more about the potential of the role, I asked myself: Could I really succeed without a technical background? I heard from Facebook that they actually had confidence that I could.

When speaking with other people without a technical background who had joined the program the prior year and were successful the key was not about understanding how the indi-

vidual lines of code are written, but learning to speak the language of engineers and designers as well as effectively allocating and leveraging resources across the organization

One thing that was suggested was to quickly learn how to ask the right questions and speak the right lingo.

For example, if Facebook is looking to release a new feature, as a Product Manager, you need to be able to understand when people you're working with start explaining the implementation and design choices behind various components of features. I don't think you necessarily need to understand the detailed technical implementation, but you do need to be up to par in the language and terminology used in the discussion so you can understand and contribute.

None of this is to say that it still isn't great to have a technical background going in. It's just meant to show that it may not be completely necessary to have been an engineer or designer prior to stepping into a Product Management role.

### **What are some examples of strategies you prepared for securing a role as a Product Manager at technology companies?**

Broadly speaking, it was three points. First off, I spent a lot of time learning a lot about the product. I delved into the product both at the front end and back end (e.g., when looking at Facebook Places, what could be added to it and how would it need to grow to help deliver a new and differentiated impact to people). Secondly, I sat back and thought strategically about how I would actually use this product (e.g., how do I use Graph Search on a daily basis). Thirdly and finally, I took a macro-level view and thought about the scope and scale of the product (e.g., what products does Facebook currently not have in the market and what would I add to their product portfolio if hired tomorrow).

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**Quickly learn how to ask the right questions and speak the right lingo.**

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Thinking about a product at these three levels, from the highest view to the lowest, will help you understand the product at a deep enough level to make some reasoned and intelligent judgments about the product you're working with.

# PAUL ROSANIA

## Senior Product Manager at Twitter

### PAUL'S BACKGROUND

Paul graduated CS from Dartmouth in 2005. He did consulting for a few years, before starting a business called CollegeJobConnect. It ended up failing, but through the process he got a call from a notable Silicon Valley founder, who had heard of Paul and wanted to see if he would be a good fit to join their startup as the first Growth Hacker.

Paul said yes, moved out to SV in 2011 and spent 1 year working there.

He then got a call from Twitter; he had been able to 10x growth at the startup, doing both engineering and product strategy, but realized that he wanted to move to more of a pure product-related role, and to try his skills on a much bigger stage. So he accepted Twitter's offer and has now been at Twitter about 10 months.

You can follow Paul on Twitter at [@ptr](#).

### SUMMARY OF PAUL'S INTERVIEW

In this following interview, Paul shares his insights on:

- How Product Managers are like sports coaches
- What it means to be an advocate for the user
- The 3 most fundamental skills a success PM should have
- The most important thing he's learned as a PM at Twitter
- And more!

Read on to learn more from Paul!

## PAUL'S ANSWERS

**You've had a very interesting background up to your role now at Twitter. Can you talk a little bit about how you got to where you are now?**

I wandered a bit, early on in my career. Prior to Twitter, I worked as an engineer at two start-ups, founded one, and also spent three years doing management consulting. At the most recent startup, I was the first person to spend 100% of my time focused on growth. As a result, I split my time between product management — brainstorming, roadmapping, prioritizing, etc. — and engineering.

Coming to Twitter, I chose to go all-in on product management. Twitter's full of world-class engineers, and I felt I had more to add on the product side. I'm a Computer Science major by education, but my passion has always been in products, and designing and shipping them by any means necessary. Going into Twitter, I wanted to play to those strengths, particularly product leadership, long-term planning, and doing what it takes to get things shipped. So I decided to do PM at Twitter, initially in Growth. My role at Twitter has evolved over the past few months, and rather than being concentrated on Growth I'm starting to spread out and work on other things around the company.

**In your opinion, what are the goals and purpose of Product Managers? What are some of the most valuable skills I could develop in a short-term internship as a Product Management Intern?**

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**Someone needs to spend every waking hour laser-focused on the customer.**

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The exact role of Product Management varies from company to company. For starters, some companies combine product and project management into one role. Others split them apart. Those that split them have different ways of balancing

the two. With project management, your number one goal is to make sure that the thing you're working on actually ships. With product management, your goal is to make sure you're building the right product, with the right set of priorities, in a manner consistent with company goals, while constantly advocating for the user.

At Twitter, we collaborate with Technical Program Managers (TPMs), who are interdisciplinary, but function somewhat like project managers. On our biggest and most complex projects, I collaborate with a TPM. On others projects, I take on project management responsibility directly.

I think this reflects on an important aspect of success as a PM: doing whatever jobs need doing to get your project into your customers' hands. A big part of my job is doing whatever dirty work is necessary so the real work can get done. Often, that means writing email, or repre-

senting the team in meetings. Whatever makes the process of building software as smooth as possible for my team.

Every once in awhile someone I hear someone ask if PMs are really necessary. After all, I work with a lot of engineers who have a strong intuitive sense for what a good product looks like. But if an engineer asks me, I tend to ask in return, “Do you want to spend your time building? Or do you want to spend your time doing all the planning and coordinating?” A lot goes into shipping products, beyond writing code and having an eye for quality.

When you’re engrossed in building software, you don’t always get direct exposure to users themselves. Part of a PM’s job is to remain connected to the people who live with the product you ship. At Twitter this is particularly challenging — with 200 million active users, it’s really hard to infer what people want, just by using your gut or conversations with a few friends. It’s just not a representative sample.

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**Make sure that you’re building the right product and advocating for the user.**

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So it takes some time to develop the right mental frame to start to design our products in the right way, and this frame is a critical aspect of a PM’s value. I think you could fire all the PM’s at Twitter, or at most companies, and not notice anything wrong for a couple months. And then you’d notice what you’re building is losing traction in the market, or you’re shipping features your users don’t care about. Someone needs to spend every waking hour laser-focused on the customer. PM’s keep you honest on that front.

One last thing on being a great PM, by way of analogy. A PM is like a sports coach. You don’t manage the players directly or negotiate their contracts. All of your influence is indirect. Your success, and ultimately your team’s success, lies in your ability to lead. If the players don’t respect you, your job becomes impossible.

Great PMs guide their teams to success, without ever setting foot on the metaphorical playing field. They are the glue that sticks the team together, empowers them to succeed, and keeps them focused on the goal.

As for skills to focus on, I think there are three fundamentals: organization, communication, and thought leadership.

Organization is the key to success. It’s trite, but true. I mentioned earlier that the PM does whatever it takes to ship product, and part of doing that is not forgetting what needs to be done. Figure out a way to organize your thoughts, questions, and to-dos. I’ve spent a lot of time creating a system that works for me, and I refine it constantly. Ultimately, this means my manager can trust me to get things done without oversight, and my team knows when they pass things to me they don’t have to worry about whether I’ll follow up.

Communication helps indirectly. To be effective as a PM, you need to be perceived as a reliable hub for your product. Otherwise, people will go directly to members of your team, distracting them and slowing your project. At a minimum this means prompt, clear and succinct responses to questions. (And a lot of email!) At the next level, this means laying out and evangelizing the medium and long term goals and roadmap for your project. When people know

what you're planning to do and why, they're more likely to leave you alone and let you and your team execute your vision.

Thought leadership means knowing your product and industry cold, and having a clear and passionate vision for where you want your product to go. This might seem like the most important thing, but without organization and communication, you're faced with shoddy thought leadership, or a beautiful roadmap no one knows about or respects.

### What do you mean by being an 'advocate for the user'?

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#### Don't lose the broader customer experience.

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Let me give you a specific example from Twitter. Think about our signup process for a second. Everyone who uses Twitter can explain intuitively why you need to have a username. Without one, no one could find your profile to follow you, and there would be no way to @-mention you. But if you talk to potential users, you encounter people who have no idea why the signup process is the way it is. What's a username? Why would I need one?

Eventually, you start to identify patterns in user feedback, where your customer doesn't have the same understanding of your product that you think they do. As a PM, it's your job to identify these patterns. Over time, the patterns form into broad intuitions about how users will approach your product, and you surprise yourself by guessing user feedback before you hear it. This is what I mean by advocating for the user. It's my job to make sure that we don't lose the broader customer experience.

As a new PM, your intuition will be raw, but you can overcome that by talking to customers. At first, the patterns you find will be simple: people struggle with passwords. But over time, you start to detect broader heuristics: web forms can never be too simple or straightforward. You start to connect these heuristics to each other, and generalize. Through repetition and generalization, these heuristics build a foundation for intuitive product sense.

### What do you do as a PM at Twitter to make sure you're consistently in tune and empathizing with the end users?

There are many tactics, but only one strategy: talk to your users.

We're a little spoiled at Twitter, because we have a dedicated user research team keeping us connected to our audience. I immerse myself in their results whenever I can. This luxury is dangerous though, since it's indirect. As a PM, it's easy to interpret research results abstractly, and start to think of users in terms of cohorts and percentages.

Quantitative data is critical, but it's also critical to stay connected to real humans who use your software. I also volunteer occasionally, helping people with computer-related issues, and there are often questions about Twitter. It's fascinating to watch people do even the simplest things, like logging in. Many people will do basic things like repeatedly type their password

wrong. After a few tries, they might even conclude that there's a bug with Twitter instead of realizing that they've just been typing their password wrong the whole time.

These are legitimate user problems, and it helps to be there with them to witness it first hand. Otherwise it feels too abstract. We're humans after all.

So I think empathy is the right word, but at the same time I don't think you can identify all of these things just by being empathetic.

I envy teams whose customers arrive with credit cards in hand. Paying customers are either happy or angrily calling demanding to deliver feedback to you. It's painful to hear it sometimes, but at least they're giving explicit feedback. I don't ever get that, and I can't just call up a handful of our 200+ million users hoping to get an accurate representation of the user base. So I have a particular challenge understanding the 'average' user. This is where our user research team really saves the day. They conduct studies of all sizes, drilling in on all kinds of problems in a way that accurately represents our massive user base.

### **What would you say is one of the most important things you've learned as a Product Manager at Twitter?**

I used to catch myself asking other people questions when I already knew what they were going to say. Or I would have a tingling sense in the back of my brain that something was off with a deliverable. For example, someone might ask me what the next steps for a project are. I'd write a few bullets into an email, and as I hit "send" I would already know exactly the first question they were going to ask. But I wouldn't write it in, maybe out of laziness. Without fail, they would ask that follow-up question. And all you can think about to yourself in that moment is, "How did I know and why didn't I answer it?"

I encountered this a lot in my early career, but once I became a PM, I knew I had to fix it fundamentally. For PMs, it's a critical failure. You really need to guard against it. You're expected to be the person who notices incomplete work, when you do it and when other people do it. Otherwise you will ship an A- product. You'll know in your heart it's an A- and it will end up being an A-. As a PM, that's unacceptable. The buck stops with you.

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**The buck stops with you.**

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You can't count on someone else calling you out if your product is subpar. You were hired to be the arbiter of that, and other people won't even necessarily know the right questions to ask.

### **What are some of your responsibilities as a Product Manager at Twitter?**

I mentioned earlier that organization, communication, and thought leadership are great skills to develop. These are some of the cornerstone responsibilities of a PM at Twitter.

Diligence is another responsibility of every PM. The product you build is a reflection of you and the effort you put into it. That means being honest (and sometimes critical) with yourself,

your team and your work. A good PM wants to do what's right, even when it hurts. That means doing homework and proving to yourself and others that your product is as good as you think it is, and your vision is 'correct'.

For me, this level of diligence was unnatural at first. There's so much stuff that happens each day that your memory gets overloaded easily. I quickly realized I had to stop trying to keep everything in my head. I had a couple instances where I forgot to do something I'd been asked to do, or where I stepped into a meeting and realized I hadn't planned out what I was going to say as much as I thought.

Nowadays I write everything down immediately, even if I plan to do it right away. For simple tasks, I use Things.app on my Mac. When I meet with someone, I jot down notes in Evernote as we talk. As a result, I never forget to do things, and I never forget conversations with team members. When I have product ideas I jot them into a running Google Doc for the project. This system frees my mind from remembering things, and lets me concentrate on organizing and planning without wasted cycles trying to remember things.

I also find that writing helps me keep myself honest: sometimes an idea that seems crisp in your head is hard to explain in prose. That's a sign your thinking isn't yet complete.

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**A good PM wants to do what's right, not boss people around.**

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One last thing I want to say is that as a PM, you don't have a ton of control or flexibility over your own time. You're often at the beck-and-call of meetings, email and questions from other people. It's tempting to fight back, but these obstacles are actually a part of the job. Be honest about whether each meeting is important, but also realize that by having distraction-filled days, you're clearing distractions from your team. (And sometimes these meetings help you collect information that keeps you alters your roadmap and keeps you focused on the right goals, which saves time in the long run.)

If you're feeling overwhelmed, don't be afraid to block off time to do long-term thinking. I put one-to-two hour blocks on my calendar a few days a week when I'm busy, to make sure I have time to think. You need time to synthesize your thoughts, and if you don't reserve that time other people will take it from you.

**I can program in Python and R, but don't have as concrete of development experience as I've heard many PMs have. As someone who has somewhat of a technical background, what are some things I can do to compensate for this?**

Having a strong engineering background helps you as a PM in two ways.

First, it helps you build a strong rapport with your engineers. If you can walk the walk, they're more likely to trust you to make judgment calls on their behalf, and not to overpromise when they're out of earshot. You're also less likely to put your foot in your mouth talking about the details of something you're asking them to build.

Second, having a strong engineering background helps you estimate, which in turn allows you to better coach your team by sniffing out opportunities to push them to new levels of per-

formance. When you work with a really great team, and you know when to push, everyone grows and your team, your company, and you all benefit.

So to compensate for a lack of concrete experience, brainstorm ways to accomplish these goals. Find opportunities to hack on projects, ideally by writing code alongside your team. At Twitter we have quarterly Hack Weeks, which are a great chance for me to stretch myself and prove my mettle to the team I count on.

**I'm concerned about the level of impact I can have in just 3 months at a company. I want to learn a lot, and think I will, but I also want to get a chance to actually make an impact. How did you spend your first 3 months in your first PM role, and what would you do differently if you could redo it?**

I got my hands dirty right away, and I recommend the same. At Twitter, we always look for intern projects that are substantial in size, allow the intern to really “own” something they can drive to completion on their own (with guidance), and are shippable in the 3 months they're on site. Oh, and always, always real projects. No practice projects or busywork.

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**I got my hands dirty right away.**

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Hopefully your company lays out the same opportunities for you, but if they don't do it instinctively, speak up! You're right that there's a chance you won't make an impact. But you definitely can, I've seen big impacts time and again from interns here. Make sure you're working on a real thing that's likely to ship before you leave, that you can point to when you're gone.

**What are some mental models you use to view the quality of an educational product? In other words, what are the criteria you use for judging how successful a product is?**

I don't have specific background in educational software, but I can speak generally: Build a product users love. Talk to them, listen to their feedback. State the problems you are trying to solve clearly, up front, and always from the user's perspective. Break things down. Focus on high leverage projects first. Ship.

I highly recommend reading *Inspired* by Marty Cagan. It's a quick read, and it will help you develop a framework for approaching product development.

**I've often heard the advice that I should do a “technical” job first for a few years before jumping into PM, because it's hard to switch back to a “technical” job (such as programming, designing) after doing a PM role. What do you think of this advice? Is it a good idea to jump right into the PM role after graduation, or is it better to do a regular role first and move in to the PM role?**

The best career advice I ever received was, “you can't do what you want by doing something

else.” Do what you love. Worry less about a hypothetical career switch. If your passion really is in product management, you won’t leave it.

(Oh, and the world is clamoring for talented designers and engineers. If you need to make that switch later, you’ll find work.)

# LAYLA AMJADI

Product Manager at Facebook

## LAYLA'S BACKGROUND

Layla was most recently a Senior Associate Consultant at The Bridgespan Group, a management consulting firm that serves the nonprofit sector. At Bridgespan she built significant expertise in philanthropy and served as the Product Manager on a groundbreaking philanthropy video series titled "Conversations with Remarkable Givers." The series features original interviews with 60 impressive philanthropists, including David Rubenstein, Pierre Omidyar, and Melinda Gates. Clients from her casework included organizations, such as the United Nations Foundation and Facing History and Ourselves.

Layla has also interned at Procter & Gamble in marketing and at the US Department of State in the Bureau of Democracy, Human Rights, and Labor. She dedicated the majority of her undergraduate career to serving on the national managing committee of STAND, the student-led division of the Genocide Intervention Network, which organizes hundreds of high school and college chapters in to stop and prevent genocide. She was elected as the organization's Executive Director in her senior year.

Layla graduated from Harvard University with a B.A. in Government in 2010 and speaks Farsi and Spanish. She can be followed on Twitter at [@LaylaAmjadi](#).

## SUMMARY OF LAYLA'S INTERVIEW

In her following interview, Layla shares her thoughts on:

- How to influence her team without authority
- The most valuable skill all PM's should know
- What is unique about being a female Product Manager
- And more!

Read on to learn more from Layla!

## LAYLA'S ANSWERS

### Can you talk a little bit about your background and what led you to product management?

I graduated from Harvard in 2010 and had spent the majority of my undergrad working with a non-profit organization called STAND (The Student-Led Division of the Genocide Intervention Network). STAND mobilizes hundreds of college and high school chapters on genocide prevention advocacy.

While at STAND, I served as its National Programming Director in my junior year and the Executive Director in my senior year. Throughout it all, I had the opportunity to work on campaigns, websites, and events in a cross-functional role. I really enjoyed being able to work with policy experts and grassroots organizations on one day, and web developers the next for any given initiative. It was challenging, exciting, and I was always learning from my teammates.

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**I came to really love the PM role as I had come to understand it.**

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So when it came time for my internship before my senior year, I went looking for a role that would emulate that cross-functional, hub-of-the-wheel experience, which is why I pursued brand management at Procter & Gamble. At P&G I got to work with sales, R&D, PR, agency partners, business analysts, and point-of-purchase experts, so I

definitely got the cross-functional experience I wanted, but something didn't click for me. Part of it was that I wasn't necessarily connecting to my product (cleaners) or "her" (40 year old moms), and another part was that P&G was a hierarchical environment that was a bit slow moving and risk averse. I was the only undergraduate intern in the program, so I had plenty of MBA intern mentors over that summer, and they recommended that I look into management consulting to expose myself to different types of organizations and really build up my quantitative and strategic background. I took their advice and ended up going to work for The Bridgespan Group, a non-profit consulting firm that was incubated at Bain & Company and co-founded by Bain's former Managing Director. Interestingly, it was this consulting job that opened the opportunity for me to work in a product management role.

Bridgespan was given a large, multi-year grant from a prominent foundation to develop the Give Smart initiative, an effort to support philanthropists to give effectively and accountably. Part one of this initiative was the Give Smart book. Part two was an original video series showcasing the wisdom of 60 high-net-worth philanthropists from around the country. We developed a TED Talks-like content platform with about 1,500 video clips, featuring 1-3 minute sound bites from philanthropists like Melinda Gates, Michael J. Fox, Julian Robertson, Tom Steyer, and David Rubenstein on a range of topics. I was more-or-less a Product Manager on the video project.

So ultimately, through helping to build and populate this platform over the past 1.5 years at Bridgespan, I came to really love the PM role as I had come to understand it. Now I'll be

transitioning onwards to starting as a Product Manager at Facebook in August.

### How did this transition happen?

As an organization grows, it can begin to take more risks on the types of people it hires for any given role. I saw this in my consulting cases. I can imagine as Facebook has grown there's been room to hire more people from different backgrounds for the PM role. I can see how having a management consulting background as a PM would be helpful, because I think, at its core, it's a strategic role.

### If you were standing in a first-grade classroom and had to explain to the students what a Product Manager is, what would you tell them?

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**A PM works with a team to decide what a puzzle will assemble to look like when it's completed.**

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I would use the example of a puzzle and say that a Product Manager works with a team to decide what a puzzle will assemble to look like when it is completed. Then the Product Manager works with the team to break it apart and jumps in whenever necessary to help teammates with their pieces. The PM then focuses

on working with the team to put the puzzle back together in a timely and efficient manner. From my experience, as a Product Manager, you help your team decide the best way to spend their time and resources on a project and keep everyone pumped along the way.

### From your experience at Bridgespan, what were some of the most valuable things you learned about succeeding as a Product Manager?

The three major takeaways from my first PM experience were:

1. **Avoid "nice-to-haves":** As a PM, part of your job to make sure that the team is and feels like they are using their limited time efficiently. This means avoiding workstreams that are "nice-to-have's" that won't necessarily change the the "answer" or the direction of the product. Understanding what is a "nice-to-have" requires going through the hypotheticals. If a proposed piece of work could lead to "X" or "Y" results, but we also know that regardless of "X" or "Y" result, we'd still do "Z", then that research might not be worth the time. It doesn't change the answer. But you have to weigh the pros and cons and balance efficiency with efficacy. Sometimes a workstream might not immediately impact a product in the short run, but could build knowledge that will be useful down-the-line, or it could be a way to satisfy the team's intellectual curiosity. So its not always cut and dry. There are tradeoffs.
2. **Influence without authority:** This is a key part of being a Product Manager, and is admittedly a very difficult thing to learn how to do well. As a PM you are coordinating a team of peers. You are working with other cross-functionals in the organization who might not

even have a time allocation for your product. You're not the boss. But, you are responsible for executing the vision. So how do you navigate this? When I was working on the Give Smart video project, this happened very naturally (it's important to be genuine) but I built very strong, one-on-one relationships with each of my teammates on the project and throughout the organization. I came to understand how important the project was for the person given all the other work they have going on. You have to remember, just because you are working 100% on something, doesn't mean everyone else is. So you have to understand the full set of projects someone has on their plate so you can help them prioritize. I came to understand their likes, dislikes, what motivates them, what frustrates them. Having a really comprehensive understanding of the "John the whole person / professional" not just "John the PR expert I need something from" is the only way to be successful in "Influencing Without Authority." You can't just think about what's in it for you all the time. What's in it for them? What do they need? What do they want to learn? Having this mindset is key to being successful in a working relationship where the person you need something from doesn't have to do it.

3. **Overinvest in communication:** Whenever I join a new team, I overinvest in communication at the beginning. This isn't because I'm trying to micromanage the situation. It's because I'm trying to sync up our brains. I want to understand my team member's thought processes, biases, values, and expertise. I want to get to a point where I can

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**You're not the boss. But you are responsible for executing the vision.**

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anticipate what each team member's stance would be on a particular decision or what area of the decision they would definitely want to weigh in on. I get to this point by constantly asking "Why?" This way, I can understand their points-of-view and if they happen to not be in the room at some decision-point, I can still represent their thoughts and advocate for them. This does two things -- it builds trust between me and my teammates, and at the same time it increases efficiency on the backend. Trust amongst teammates, I believe, leads to faster, better results. To illustrate, if John is going into a meeting with Jen about X decision, and I know John knows how I think and the calls I'd make, I don't need to be in the meeting, and I can repurpose my time in a way that would better benefit the team's needs.

### **What are some things you would say are in common with what you did at a non-profit like BridgeSpan and what Product Managers at technology companies might do?**

At Bridgespan, I learned a very valuable skill that I think all Product Managers need to learn to do: how to carefully say "No." This was very difficult for me to get comfortable with, especially since I was the most junior person on the team and managing-up four senior leadership members.

One story that illustrates this is when a partner wanted a very specific video-feature for the website. He was very adamant that having this feature was a crucial part of the experience.

But my team and I didn't believe that we had the capacity to execute on the newly proposed feature, and we didn't think that it would dramatically change the user experience. It wouldn't

“change the answer.” So through bringing the facts to the table (i.e., this is how many resources it would take and this is how many resources we have available), we were able to objectively say ‘no.’

I think this story shows that as a Product Manager, you’re likely in a high-energy place and there are probably many people around you who are highly-skilled and have many great ideas. But as a Product Manager, one of your jobs is to promote and feed this excited energy, but channel it effectively, which will most likely require saying ‘No’ to some of these ideas.

Yet there’s nothing less empowering than saying ‘No’ to people all the time. To counteract this, one of the most valuable things you can do at the beginning of any project is to work with your team to develop a set of project priorities. As a team, you can evaluate new ideas against this framework and decide in an objective fashion which ideas should be pursued. You give everyone the “saying no” responsibility in this way.

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**All PMs need to learn how to carefully say “No.”**

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Thinking about this from the other side, I also learned how to make it clear that I was keeping track of everyone’s ideas. We had a team whiteboard that contained an idea bank that everyone contributed to. Having this be a public, visible bank of ideas showed my team that I hadn’t forgotten what they had mentioned, and that I was actively looking for opportunities (i.e., time and resources) to make their ideas happen. You need to show people that you are listening to their ideas, even if you have to say ‘no’ for the time being.

**Do you think there is anything particularly unique about being a woman in Product Management? Do you have any advice you would give to women who aspired to work as Product Managers?**

Honestly, I’ve never felt evaluated by my peers on the axis of ‘Woman’ v. ‘Non-Woman.’ I think the bias that I felt a lot more was more along the lines of ‘Technical v. Non-Technical.’

In terms of advice I would give to others, I think that being a woman should be embraced as an advantage. As a woman, you have a unique set of traits and abilities. You’re naturally detail oriented and zoned-in on people’s thought processes. These are strengths to be leveraged, and I’ve never felt disadvantaged because I’m a woman. Finally, many technical products have user bases that are > 50% female. Having a woman’s opinion in the room is important and valued.

**You mentioned that you feel pressure along the ‘Technical v. Non-Technical’ axis. As someone who doesn’t have a technical background, what are your thoughts on doing Product Management at a very engineering-driven company like Facebook?**

I think that whatever job you’re in, you should always play to your strengths and try to surround yourself with those who can educate you and compensate for your weaknesses.

My strength is that I can coordinate the execution of a project with a timeline, and I've been told that I can keep people excited along the way, motivating them to do their best work. As a choreographer, dancer, and amateur interior designer, photographer, and artist, I have also developed a good gut for design and flow. So I'm confident and comfortable in these areas. Facebook has such strong teams of engineers that I'm not worried about not having a technical background. Plus, as a PM you're not telling engineers how to do their job, you are unlocking their knowledge and bringing it to bear when its time to make decisions.

**What advice would you give to someone looking to work as a Product Manager coming from a non-technical perspective?**

Do your homework; be a sponge. Go to extra professional development opportunities to get up to speed and make sure to become as knowledgeable as possible. Be a learner and respectful. Tell the team you work with that you want to learn from them and you want to grow from working with them.

Keep in mind that you're the coordinator, not the boss of the people you're working with. Go into your role with confidence and humility.

**Given that you'll be starting at Facebook in August, what have you done, and what will you be doing to prepare for your new role?**

I think that it's good to have terminology down for someone who's not as deep in the tech world. So keeping up to date on the lingo by reading tech blogs and magazines is really important. I've been also deepening my knowledge about the tech ecosystem and technologies that are used.

Finally, I've also been an avid user of the product. I've been building my gut intuition as a user and having specific anchor references in my head that I can pull up in real-time during meetings.

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**Surround yourself with those who can educate you and compensate for your weaknesses.**

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So that means I've been spending a lot of time on Google+ and Path and various different messenger apps to survey the field and being cognizant of the designs that these apps chose compared to the choices Facebook made. It's very helpful in orienting yourself to understand the context these other apps are set in and the tensions they face.

**Are there any final thoughts you'd like to share?**

Ultimately, my long-term goal is to bring technology and innovation to the problems the non-profit sector works to solve, because so far scaling nonprofit solutions to social problems has proven to be very expensive. Technology can provide that platform for scale. And I also just

have a hard time believing that scaling nonprofits, one-by-one, to \$20-30M revenue ceilings is going to change the world. All sectors (public, for profit, nonprofit) need to bring their unique assets to bear on a problem. For example, CVS is a network of brick and mortar stores in a range of communities across the country. CVS is a platform for scale. They rolled out Minute Clinics faster than any community health organization could have rolled out their clinics.

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**There aren't enough technical people in nonprofits.**

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And they are doing their part to increase access to lower cost options for health care. And it helps their bottom line. Win, win, win. What attracted me to Facebook is that it's also a huge platform for scale, the only difference is that users get to decide what they'd find most beneficial to roll through the network.

There aren't enough technical people in nonprofits. And they're aren't enough people who are willing to take risks and do something totally out-of-the-box. If more people get into nonprofits with a technology background, I believe that more solutions will reach more people in increasingly cost-effective and innovative ways.

# AVICHAL GARG

Product Manager at Facebook

## AVICHAL'S BACKGROUND

Avichal is a product manager on Facebook's Platform team working on a new, undisclosed product and managing the teams responsible for user facing platform products such as Facebook Login, social plugins (the Like button on 3rd party sites), and Timeline Collections. Previously, he was co-founder and CEO of Spool (acquired by Facebook in 2012), co-founder and CTO of PrepMe (acquired in 2011 by the Daily Mail Group, LON: DMGT), and was a product manager at Google in Search Quality and Ads Quality as well as started Google Transit, one of Google Map's core differentiating features. He has an M.S. and B.S. from Stanford University.

## SUMMARY OF AVICHAL'S INTERVIEW

In his following interview, Avichal goes over:

- What it means for a PM to be analytically skilled
- The most unique skill that he has seen a PM have
- How to develop great product sense
- And more!

Read on to learn more from Avichal!

## AVICHAL'S ANSWERS

**In your opinion, what are the goals and purpose of product managers? What are some of the most valuable skills that a I could develop in a three-month period as a Product Management Intern?**

I think that Product Managers play an editorial role on the team. There's a lot going on when you're trying to get a product out the door, and someone needs to play the editor. Given this perspective, I think one of hardest things about the role is figuring out, given your time, what are you getting done and why?

**I've heard from many of the other PM's that I've spoken with as well that another important role of a PM is motivating team members. Is this something that strikes you as true for you?**

You do have to motivate people in addition as well. In my opinion, the vehicle for motivation is the product vision that you're pitching. You know that quote about leading people to build a ship?<sup>1</sup> I think that really applies here for Product Managers and pitching a product vision to the team.

In terms of most valuable skills, here's an exercise I would suggest doing: first, enumerate what skills you need (technical understanding, ability to evaluate tradeoffs, analytical skills, design, persuasion). Then, you should think about all of these and go over all what you feel

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**Enumerate all of your skills and figure out what to double down on.**

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like you lack and what you can learn in three months. I would say that the easiest skill to pick up would be the analytical bits. It's hard to become much more persuasive or a better designer in three months. It's also harder to become a way better engineer in three months.

So to recap: enumerate all of your skills and figure out what to double down on and what you're interested in improving.

**In your opinion, what does it mean for a PM to be analytically skilled?**

Given a problem, can they (a) understand the problem? Can they (b) ask questions that have simple data answers that lead you down the path of being able to solve that problem? (That includes asking for simple metrics, quick metrics.) And finally, can they (c) generate a clear hypothesis beforehand?

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<sup>1</sup> The quote Avichal is referencing here is by Antoine de Saint Exupéry — "If you want to build a ship, don't drum up people to collect wood and don't assign them tasks and work, but rather teach them to long for the endless immensity of the sea."

**I can program in Python and R, but don't have as concrete of development experience as I've heard many PMs have. As someone who has somewhat of a technical background, what are some things I can do to compensate for this?**

I think you should try to become more technical while you can in school. Generally, you become less technical over time, so hedge against this. Being technical is not a hard prerequisite but it is incredibly valuable.

The other direction you could go is to become more design-oriented. If you're a great designer, you can also become a great PM. In general, you tend to see people who are successful in one of those two roles.

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**Neither design nor engineering has an end state.**

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Something to keep in mind is that design doesn't have an end state. In other words, there is no point at which you just stop learning design. It's a continual iterative process that you have to go through to learn how to become a good designer — so start early! What you tend to see is that designers tend

to get better as they get older. This is just as true for engineering.

A lot of people don't think of skills such as design or programming as lifelong skills; they think of things as thresholds. "If I'm 'good enough,' then I can stop" is the thought process. But really, you have to keep on getting better and better at all of these things.

Another thing to note is that design tends to be easier than engineering to do outside of school. So my advice would be to study engineering in school, and on the design end you can be self-driven to maintain.

**What are some mental models or patterns that you've seen that make a high-quality product?**

If I had to mention one thing, it'd be that I think that high-quality products don't try to do too much. They do one particular thing, and they do it exceptionally well. And that's the core of their value proposition. And I think a lot of times, if you're not absolutely amazing at one thing at a product, but instead spread across many different domains, then you tend to be replaceable and not have lasting value.

Look at Google, for example. Google at its core is still a search company. It took them many years to get other products out the door, and that's something to take note of.

**What is the most unique skill you've seen a PM have that made him or her exceptional?**

I think if I had to try to pinpoint it, it would boil down to respect. When you're really good, it's really easy to develop a big ego. But the best PMs I've worked with don't have big egos. They're not trying to be smarter than everyone in the room or put anyone down. For example,

it's easy to blow junior people off when you're an executive at a big company, but the best product leaders treat everyone with respect and humility. That's something that just resonates with people and makes them want to work for you that much more.

**One trait I've heard mentioned before as being important to a Product Management position is having product sense. In your opinion, how does one develop great product sense?**

It's a very hard thing to learn. I'm not even 100% sure if you can effectively learn it. Everyone who has had this skill seems to have it innately. If you can synthesize human motivation and human desire into a tangible thing (e.g., where the buttons go, what you name the product) then you're on the right track. Maybe you can develop this through an extreme attention to detail. Dissect what makes something good and what makes something not good. You can learn from that process.

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**The best product leaders treat everyone with respect and humility.**

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I guess as a whole, people who are good at noticing the little details tend to be able to pattern match (e.g., what makes many other products great will probably make this one great) and develop the product intuition necessary to be a great PM.

**What are the metrics you use in measuring your own success? Which ones are the highest priority and why?**

The most important metric for me is freedom: "Where can I have the most long-term freedom to learn, be happy, and have an impact?" For me, that's turned out to be having a couple of startups before my current role at Facebook. This path has given me both financial freedom and a skillset that gives me tremendous freedom inside a company that values innovative, creative problem solving (which Facebook values tremendously).

**How much freedom do you feel you have in your Product Management role?**

I think that the PM position is pretty high in terms of the amount of freedom you get.

Keep in mind that different companies also given you different flavors of PM.

Facebook has a bias towards PMs who are strong in design or analytics. If you look at the backgrounds of people who work at FB, there are a lot of people who have diverse backgrounds, such as in design or data analysis. Facebook is extremely data-driven and as a result, even a design-driven PM here would probably need to have more of a background in analytics.

It's also important to note that in terms of the difference between the top 0.1% of PM's, you would find that the best of the best are highly skilled in both of these domains.

I've often heard the advice that I should do a "technical" job first for a few years before jumping into PM, because it's hard to switch back to a "technical" job (such as programming, designing) after doing a PM role. Do you think it's a better idea to jump right into the PM role after graduation, or should I do a regular role first and move in to the PM role?

I think it's fine either way. It's really a matter of whether you think you have the requisite background in technical abilities. It's okay to jump into PM directly if you feel comfortable with your background as either a technical individual or a designer. Honestly, a lot of times, people coming out of school tend not to have the requisite skillset yet. So if this is true for you, you should really go build some of that skillset and get good at those areas before going into a Product Management role.

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**The most important metric for me is freedom.**

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For students who are interested in Product Management, but who might also feel like they are lacking some important skills, here's what I would suggest: if you can get a PM job at a tier-one organization (e.g., IDEO, Apple, FB, Google) to synthesize product work: go do it.

If you can't, try to enumerate what gaps you have in your skills and fill those in. Maybe it's engineering, or design, or something else. Build these skills with some time, and then take another shot at it. That's not to say that being a PM at a tier-one large company is an end-state, but it's a way of benchmarking yourself. It's a litmus test of whether you have these skills.

It's probably the closest you can get to an SAT. So that might be a good proxy for whether you should go off to develop deeper skillsets or not.



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# ABOUT CARL & BRITTANY

**CARL SHAN** is a lifelong student, mentor, teacher and aspiring Product Manager. With Brittany's help, he compiled this handbook to share what he learned through his conversations about Product Management with as many people as possible. He is also the co-founder of CompassPoint Mentorship, a national not-for-profit educational venture that matches high-school students up with college students for peer-to-peer mentoring.

This summer, Carl worked as a Mobile Product Manager at Pearson in New York City. His work led him to being nominated & selected by company executives as Pearson's 'Intern of the Year.'

He currently studies Statistics at UC Berkeley.

You can get in touch with him at [carl@carlshan.com](mailto:carl@carlshan.com)

**BRITTANY CHENG** is passionate about technology, design, and education. Since taking her first graphic design class in high school, she has not stopped designing. The PM role excites her because it combines her love for design and her interest in technology. She is a co-director of Berkeley Innovation, a human-centered design student organization at UC Berkeley, and manages up to seven student design projects each semester.

This summer, Brittany was a Program Manager Intern at Microsoft. She worked with designers and developers to design, spec, prototype, and implement new features and experiences for Movie Moments, a Windows 8.1 app.

She currently studies Electrical Engineering & Computer Science at UC Berkeley, with an emphasis in human-centered design.

You can get in touch with her at [bcheng42@gmail.com](mailto:bcheng42@gmail.com)

