
Product Management

Mini-Course

— **Class 1 - November 8, 2019** —

Marily Nika - marily@google.com



HARVARD
Business Analytics Program

Marilyn Nika

Edu

- Ph.D in Computing Science, Imperial College
- Stanford Innovation & Entrepreneurship Diploma
- 2 x MSc (Finance & Computing Science)

Jobs

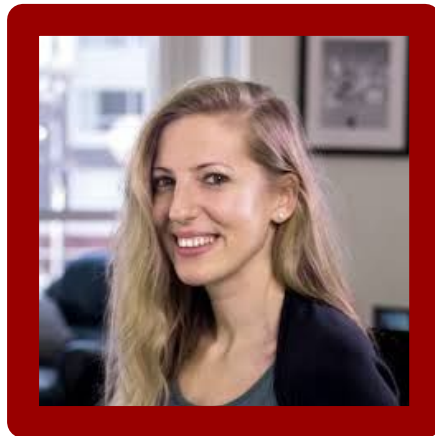
- Senior AI/ML Product Manager @ Google
- HBAP Teaching Fellow DSI & LIC
- EdTech Startup Founder
- Data Science (PhD) @ Facebook

Product Highlights

- Google's Voice Match feature
- Google's Speech Recognition for 30+ languages

Career Highlights

- Woman in tech of the Year Award 2019



Get to Know: Kim Shane



Kim Shane

HBAP Online Learning Manager

Where You May Have Seen Her Before:

- Operations and Supply Chain Management
- Data-Driven Marketing
- Leadership and People Analytics

Contact Kim for questions about:

- Access to content
- Technical assistance
- Scheduling Conflicts
- Homework submissions

Contact Information

kim.shane@mail.analytics.hbs.edu

Slack: @Kim Shane

About the Course

- **Session 1** *Friday November 8, 12 - 1 PM ET*
Intro to the Product Management role
- **Session 2** *Friday, November 22, 12 - 1 PM ET*
Personas, Use Cases, Pain points and how to work with engineering
- **Session 3** *Friday, December 6, 12 - 1 PM ET*
Long-term strategy, setting the right metrics and growth hacking
- **Session 4** *Friday, December 13, 12 - 1 PM ET*
Selected Assignment presentations

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Key Takeaways

- ✓ Why is the PM role crucial to an organization
- ✓ Best practices for being / hiring a great PM
- ✓ Real world examples

Assignment

Design & Pitch your own mini-product
Deadline: December 9th

What does a Product Manager do?



TLDR: A PM helps their team (and company) to
build and ship the right product

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— —

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— skills needed: resource management,
coordination, support —

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build and ship**

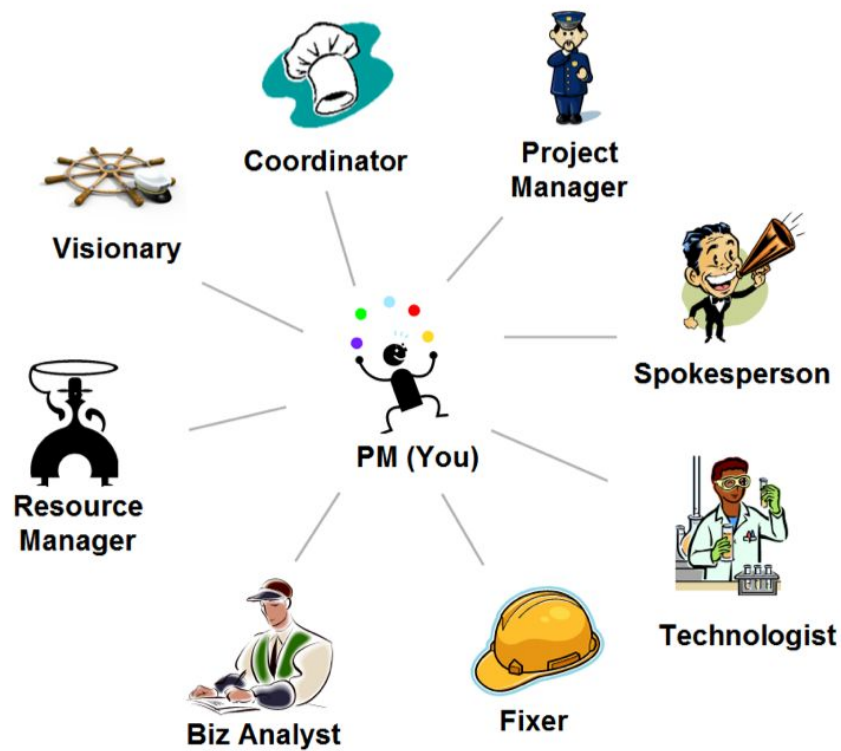
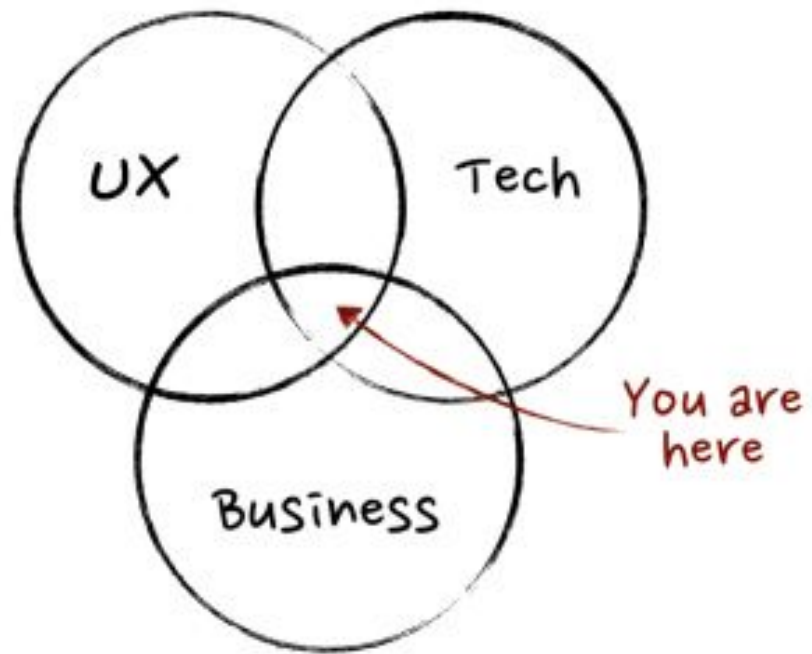
**TLDR: A PM helps their team (and company) to
build and ship**

skills needed: technical influence,
marketing, market understanding,
communication

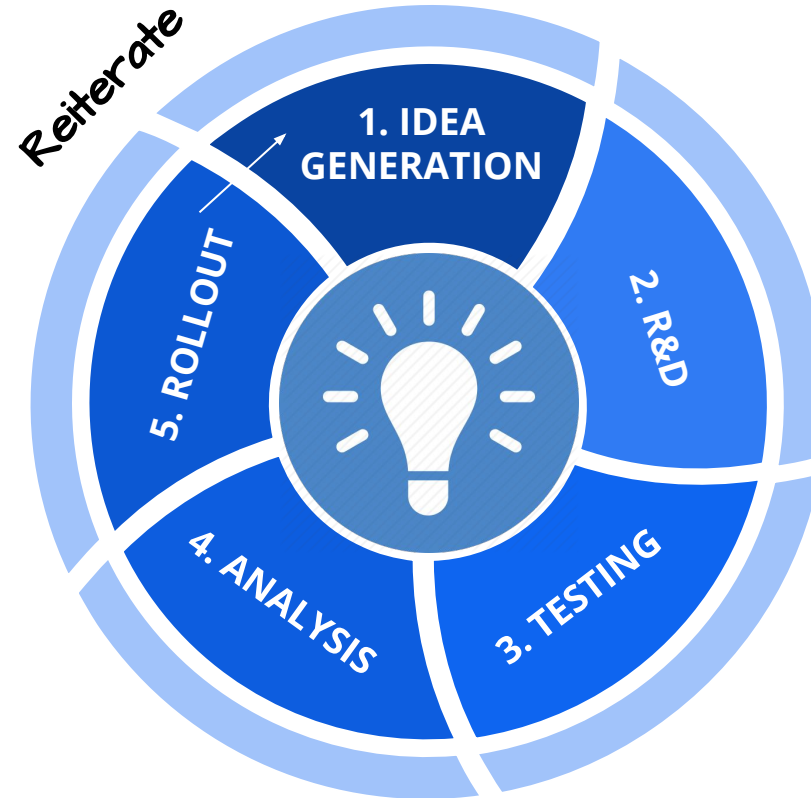
**TLDR: A PM helps their team (and company) to
build and ship *the right product***

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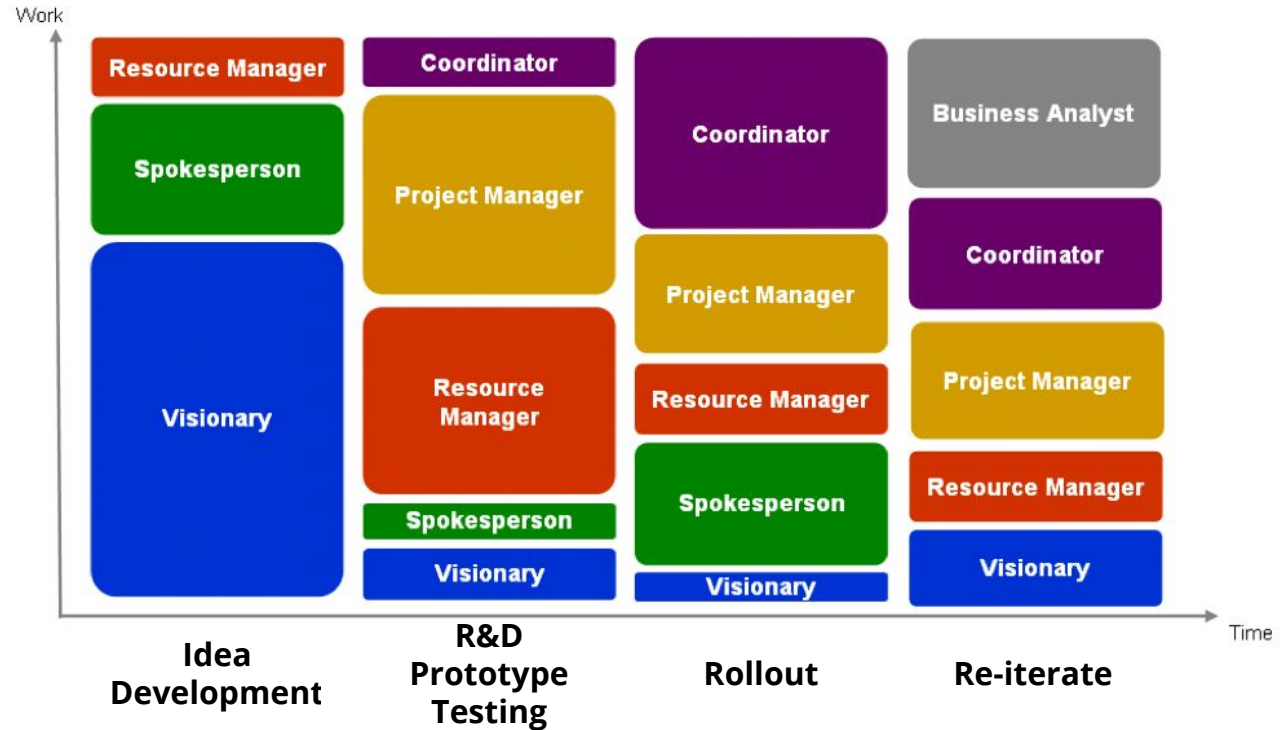
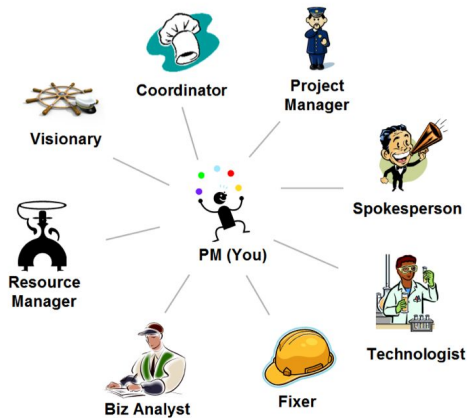
skills needed: Vision, Empathy, Creativity



5 Stages of Product Development



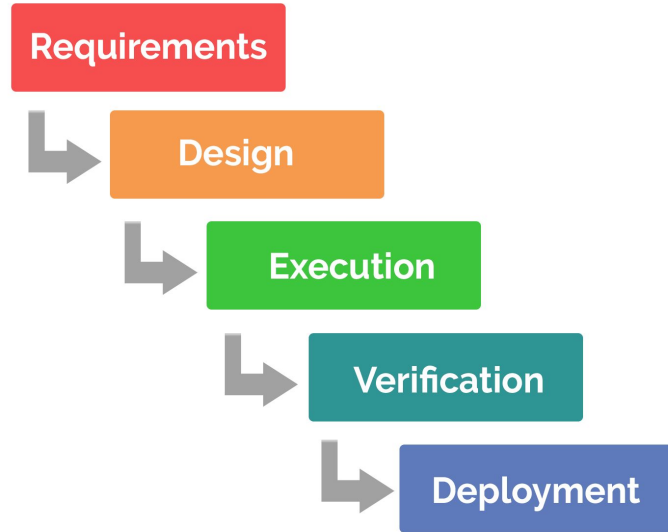
Roles over lifecycle



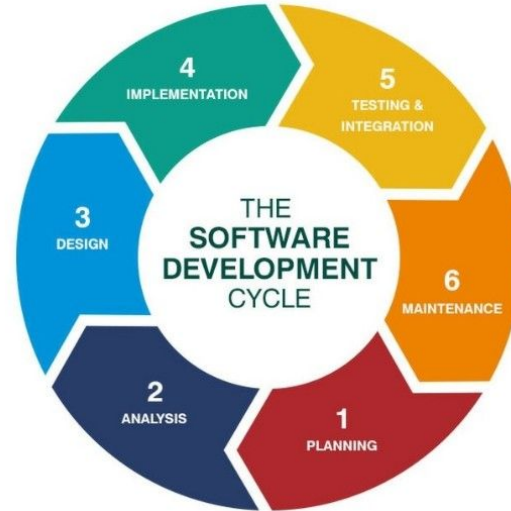
Product Managers are not Project Managers

But they also project manage...

WATERFALL



AGILE





Idea Generation



“A lot of times, people don't know what they want until you show it to them.”

1. Ahead of your time
2. Listen to customers
3. Brainstorm
4. Review competition



Idea Generation



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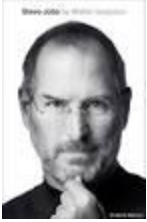
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An idea can be...

1. Groundbreaking (1b\$ idea)
2. An improvement to an existing Product
3. Focusing on a particular metric...



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Engineering
PM

Design
PM

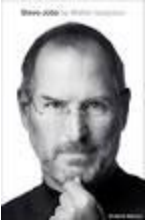
Business
PM

Data
PM

Growth
PM



Idea Generation & PM experiences



“A lot of times, people don't know what they want until you show it to them.”

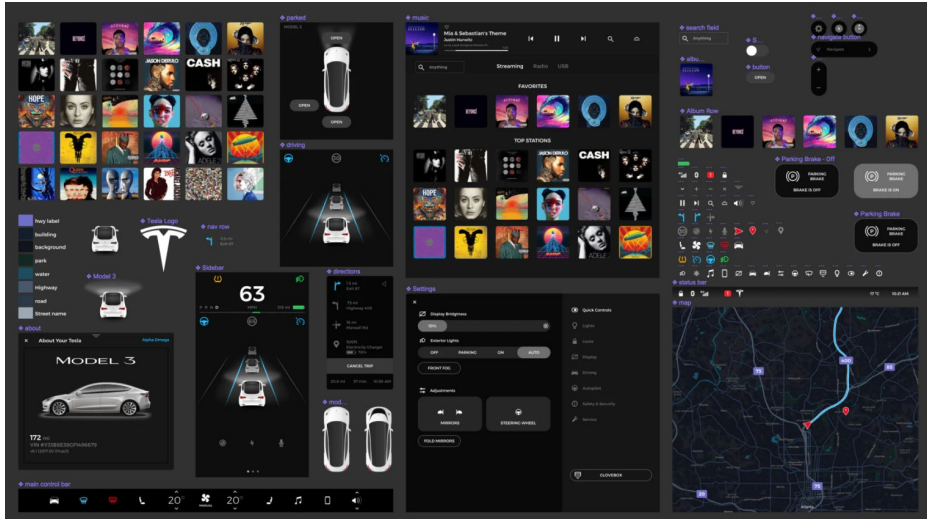
Fitbit: “Physical activity trackers designed to help you become more active, eat a more well-rounded diet, sleep better and ultimately, turn you into a healthier human being.” [Video 1, 2](#)

Airbnb: “[AirBed & Breakfast: Book rooms with locals, rather than hotels](#)”

LinkedIn: “[Social networking site designed specifically for the business community ...establish and document networks of people they know and trust professionally](#)”

Tesla, electric car manufacturing

"The Model 3 may have four wheels and a car-shaped body, but that's where its similarity to most cars ends"



Tesla Case

The status quo was challenged by Tesla

- Frequent software updates
- Open-ended and continuously “in the making”
- ...until being a fully automated car

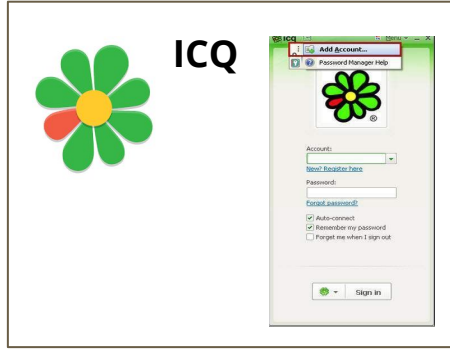
PM Strategy:

Enter the market with a product that is good enough, and promise continuous innovation until reaching full automation

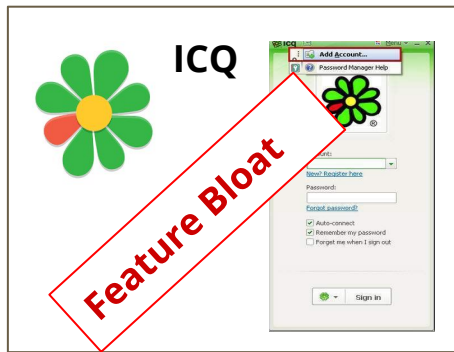
[Amazon PM's comments](#)



Are you solving an actual problem?



Are you solving an actual problem?



- ✓ **Don't fall into the "shiny object" trap**
Align your product roadmap with business objectives.
- ✓ **Understand the impact of each new feature**
- ✓ **Get used to killing features, before they kill your product**
- ✓ **Adapt or face extinction**
- ✓ **Look before you leap.**

A PM's Most Important Doc

A PM's Most Important Doc

— **Product Requirements Doc (PRD)** —



Why write?



Why write?

- Clarity of thought
- Ability to discuss over comments
- Documentation - longevity over time
- Distance

PRD Structure

- Vision
- Background
 - Problem
 - Motivation
 - Target Audience
 - Existing Solutions
- Market Research
 - Competitor Landscape
 - Market Opportunity
 - Strategic Considerations
 - Why Now?
 - Differentiation
- Ideas
- User
 - Personas
 - Pain Points
 - Needs
 - User Flows
- Solutions
 - Feature Description
 - Feature Prioritization
 - Architecture
- Implementation
- Stakeholders
- Roadmap
 - Timeline
- Success Metrics
- Projected Cost
- Caveats/Risks
- Other Areas for Investigation

PRD Assignment

- Vision
- Background
 - Problem
 - Motivation
 - Target Audience
 - Existing Solutions
- Market Research
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 - Market Opportunity
 - Strategic Considerations
 - Why Now?
 - Differentiation
- Ideas

You will need to answer:

- **What problem are you solving?**
- **How big of a problem is it?**
- **Why are you solving it?**
- **Brainstorm some ideas, not too much detail**
- **No need to submit at this stage, we will discuss next time.**

**Start working on this part of
PRD for Session 2**

Assignment

- User
 - Personas
 - Pain Points
 - Needs
 - User Flows
- Solutions
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Assignment for Session 3
(No need to submit)

+ Pitch Deck = Assignment for Session 4
(You will need to submit both the PRD & Pitch Deck prior to Session 4)
Deadline: Dec 9th!