Welcome to Week 7 with BWIB Tech!

BWIB
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IN BUSINESS

User Analysis & Technical Projects

Continuation of UI/UX Design + Approaching Projects from a PM's Perspective

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01

Understanding your Users

Understand your users.

01

User Personas

After identifying the demographic of your users and highlighting their main pain points, create 1-3 representative personas.

02

User Scenarios

Come up with common scenarios in which the user would interact with your product. This can include the time, place, and situation in which the problem arises.

Types of **Users**

There is little control over how a user will interact with your product, therefore it's a good idea to vary the experience a user may have with your current product, or competition.

Current Users: The average user of your product, within the target audience.
Power Users: Users who use the product considerably more than the average user, fans of a product, repeat customer
Non-User (possibly in the future?) — users who have never used your product, or have never heard of it

Journaling

Focus on user stories and verbalizes the researcher's thought process that led to their themes.

Affinity Diagrams

Collaboration allows for more insight (1 + 1 > 2), and helps visualize categories and patterns.

Software

Helpful in organizing large amounts of (qualitative) data. Is often expensive and may be too restrictive.

Scenario

UCLA students living on the Hill are tired of the long wait times when swiping food at takeout places.

Goal

Create a solution so that students can use their time efficiently while still eating at reasonable meal times.

Practice Focus Group

How often do you eat on the Hill? Which UCLA Dining location do you go to the most?

How long do you usually expect to wait for food at a restaurant or takeout place? What do you do while you wait?

What bothers you the most when you wait longer than you expect?

How often do you eat on the Hill? Which UCLA Dining location do you go to the most?

average: 2x a day

BPlate, De Neve, Rende, BCafe

How long do you usually expect to wait for food at a restaurant or takeout place? What do you do while you wait?

range: 10-30 min

phone

music

friends

What bothers you the most when you wait longer than you expect?

can't do work/study

nothing to eat

tired of standing

Some users like to swipe for meals early in the meal period. This is to avoid longer wait times.

Multiple people reported that they pick where to eat based on proximity and typical wait times.

Analyze based on key observations.

Most users have to plan buffer time around meal periods to make sure that they have enough time to get their food and eat before their next event on the schedule.

02

The Role of the PM in Technical Projects

PM in the Tech Industry

Background

While you don't need to know how to code to make it as a product manager, if you want to work within the tech industry, you need to be curious about tech! Although you won't be the one directly programming/building the product, you'll be spending a good amount of time communicating with teams of engineers and developers responsible for exactly that!

When finding yourself in the "Product Manager" role, you should not only look to "how technical the product is," but also "how technical the audience is." During the development process, your audience will consist of engineers who will look to you to communicate high level goals of the product as well as its technical specifications and go-to-market development plan.

PM in the Tech Industry

Background

As a PM in the tech industry, you'll likely be tasked with handling very technical projects, including ones founded upon innovative concepts, such as:

- Artificial Intelligence (AI)
- Application Programing Interfaces (APIs)
- Machine Learning (ML)
- Software as a Service (SaaS)
- Cloud Computing
- Mobile

The goal of this portion of today's presentation is to familiarize you with various technical projects and teach you some of the key frameworks/steps you should keep in mind when approaching them.

03

A PM's Guide to SaaS Management

What is SaaS?

SaaS = Software as a Service

- SaaS allows users to connect to and use cloud-based apps over the Internet.
  - Common examples are email, calendaring, and office tools (such as Microsoft Office 365 or Google Suite).
- With SaaS, users don't need to install or update any software. Instead, users simply log in and connect to the service provider's network to access the particular service.

Understanding the SAAS Model

- Clients don't buy hardware. The main difference between SaaS businesses and pure software companies is that SaaS is hosted in the cloud.
- This eliminates the need for an end user to purchase multiple software licenses or pay for infrastructure to host the software.
- SaaS businesses utilize a delivery model where a centrally hosted software is licensed to customers through a "pay as you go" subscription plan.

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Advantages & Disadvantages of SaaS Products

Advantages

- Easily accessible
- Cost-Effective
- Easy to implement, debug,and update
- Easy to scale
- Immediate data storage
- Access to analytics tools

Disadvantages

- Loss of Control
- Limited Customization
- Increased Security Risks
- Slower Speeds

Examples

- Microsoft Office 365
- Google G Suite
- Salesforce
- Zoom
- Dropbox
- Slack

SaaS from a PM's Perspective

Perspective:

- Customers constantly evaluate your product/service on a weekly, monthly, or yearly basis.
- As the market grows, alternatives/substitutes increase. As a PM, achieving product differentiation is critical.
- Empathy is critical in every decision process;
  - As a PM, one must always be able to place the customer at the center of their decision.
- As a SaaS PM, your primary goal is to build open and flexible products. This way, different use cases can leverage the same features, but in various ways.

Metrics for Success:

1. ***Client Retention:*** Are we maintaining our existing clients and keeping them satisfied? How likely is is that they would leave our service for another?

2. ***Overall Client Sentiment:*** Are clients seeing value in the platform? Are we solving an actual problem for them?

3. **Platform Usage:** How often are clients logging in and using key features?

4. ***Monthly Recurring Revenue:*** How much money are you making on a monthly basis?

5. ***Feature Specific Adoption:*** How well do clients take to our platform's unique features? Do they find them valuable and intuitive to use?

Framework:

AARRR Framework

Acquisition (or awareness) – How are people discovering the product/company?

Activation – Are users taking the actions we want them to?

Retention – Are activated users continuing to engage with the product?

Referral – Do users like the product enough to tell others about it?

Revenue -- Are users willing to pay for this product?

04

A PM's Guide to API Management

What is an API?

API = Application Programming Interface

- API is a software intermediary that allows two applications to speak to one another.
- When you use an app on your phone, the application connects to the Internet and sends data to a server.
  - The server then retrieves that data, interprets it, performs the necessary actions and sends it back to your phone.
  - The app then interprets that data and presents you with the information you requested in a readable way.

Explaining API (Example)

Imagine you're at a restaurant choosing what to order from the menu. The kitchen is the part of a "system" that will prepare your order. In order to communicate your order to the kitchen and get your food delivered back to you, you need a waiter to function as the middle-man. APIs take the role of the waiter. As the messenger, APIs take your request/order and tell the kitchen/system what to do. The kitchen carries out your request, and the waiter (API) delivers the food back to you.
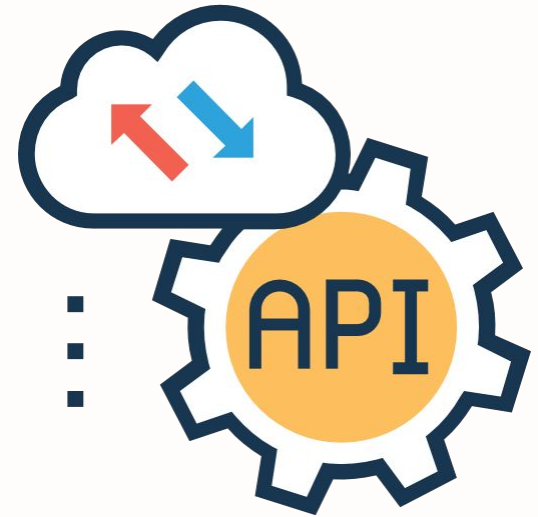
Advantages & Disadvantages of API Products

Advantages

- Reduced development time
- Easy to implement & debug
- Cost-effective
- Community support for troubleshooting & updates
- Immediate data storage
- Access to analytics tools

Disadvantages

- Loss of Control
- Limited Customization features since source code isn't your own
- Increased Security Risks
- Slower Speeds / Lower Efficiency

Examples

- Weather App
- Paying w/ Paypal
- Travel Bookings
- Third-Party Log In
- Social Media Apps
- Streaming Services

API from a PM's Perspective

Perspective:

One of the biggest challenges API product managers face is that they need to ensure APIs deliver the value that's expected from a wide range of stakeholder groups:

- **Developers**: Create and maintain APIs, including adding new features and fixing issues.
- **Internal developers:** Consume private APIs to integrate business systems.
- **Partner developers:** Consume APIs restricted to use within strategic business relationships.
- **End-users:** Rely on APIs to enable business processes w/ multiple applications to run smoothly.
- **Customers:** Rely on APIs to conduct online business efficiently.

Metrics for Success:

1. **Overall Client Sentiment:** Are clients seeing value in the platform? Are we solving an actual problem for them?

2. *Number of Users:* How many users do your API products have? How many channels are each made available on, and how many business opportunities have come from each?

3. *Onboarding Time:* How quickly can you build an API product to support an experience after you discover a need for it? How fast can you onboard companies to allow them to use your services?

4. **Cost-Effectiveness:** How does your API create value? How great is the ROI businesses generate from using your product as opposed to developing their own solution?

API Business Models:

- **Subscription Model:** Developers pay only for the services they use. There is a defined subscription plan available for developers who wish to integrate your product into their software.
- **Tiered Pricing:** This model defines different tiers packaged with a variety of options per tier. Developers can select the tier most suitable for their needs.
- **Freemium:** This model operates such that developers can use the basic features of the service for free. They can pay premium pricing for additional features.
- **Transaction Fees:** This model is mostly utilized by payment APIs. Developers have to pay a percentage of the transaction amount whenever the API is used.

05

A PM's Guide to AI/Data Management

What is AI?

AI = Artificial Intelligence

- AI products are automated systems that collect and learn from data to make user-facing decisions.
- Machine learning uses statistical techniques to give computer systems the ability to "learn" by being trained on existing data. After training, the system can make predictions (or deliver other results) based on data provided.

The Role of the AI PM

- AI Product Management is focused on using AI, Deep Learning and/or Machine Learning to enhance, improve, create and shape products.
- An AI PM builds data sets, conducts market research, sets a vision, and aligns internal teams of an organization to create, launch, and maintain AI-powered products/solutions in the market.
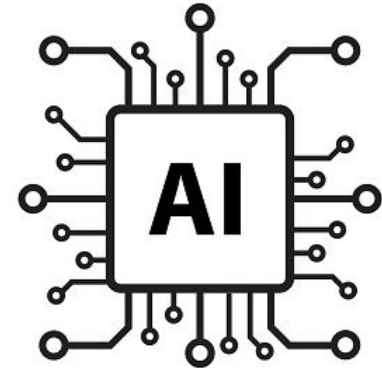
Advantages & Disadvantages of AI Products

Advantages

- Automation
- Reduces error
- Precise & Efficient
- Unbiased decision making
- Effective data acquisition and analysis

Disadvantages

- High Cost of Creation
- Unemployment
- Lack of ethical/moral concern
- Uncontrollability
- Lacks creativity and critical thinking abilities

Examples

- Self-Driving Cars
- Smart Assistants (Amazon Alexa, Google Home, Siri)
- Maps & Navigation
- Facial Detection (Face ID)
- Chatbots
- Autocorrect

Key Takeaways for AI Product Managers

Understand the effectiveness and importance of data.

1. Have the right data for the right purpose.
2. Invest in acquiring and maintaining strategic data sets — they are the primary source of competitive differentiation.
3. Evaluate algorithms carefully and always weigh the smartness of your algorithm vs. the smart value it brings.
4. How do you measure value? How might a program change its behavior?

Be an effective translator.

1. AI PMs are more technical than most traditional PMs, and need to possess understanding and breadth in technical concepts.
2. They must be capable of simplifying and removing unnecessary jargon such that all teams can understand them effectively.
3. The current wave of AI/ML is relatively new, fast paced, and somewhat confusing.
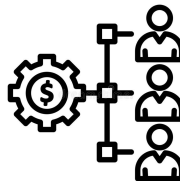
Manage expectations and stakeholders.

1. Uncertainty is high for AI products. Chances of failure are higher than an ordinary software project) — it takes effort to know how good a model will be.
2. It's important to leverage a series of MVPs: lightweight models, buy/borrow data, narrow the domain, hand=curation.

Mitigate risk and increase trust. Prioritize the user above all else.

1. As an AI PM, you are the front gate keeper for bias, fairness and privacy issues.
2. Look at privacy with empathy. Explore new solutions such as differential privacy.
3. Adopt a user/human-product-centric framework for error measurement.

06

# A PM's Guide to Mobile Projects

Mobile PM Overview:

What does it mean to be the PM of a mobile project?

- Mobile PMs are in charge of projects based on mobile platforms (think of the apps you use on your phone every day)!
- The mobile app business is more dynamic and far more competitive based on the existence of millions of apps, high usage rates for successful ones, and growing consumer demand for more.

The Role of the Mobile PM

- The job of a mobile project manager is to oversee the planning, building, measuring and optimizing of a mobile application.
- Mobile apps are more demanding from a break-fix and upgrade perspective. The focus on Agile development and iterative practices is even more apparent in mobile product management than it is in traditional product management roles.
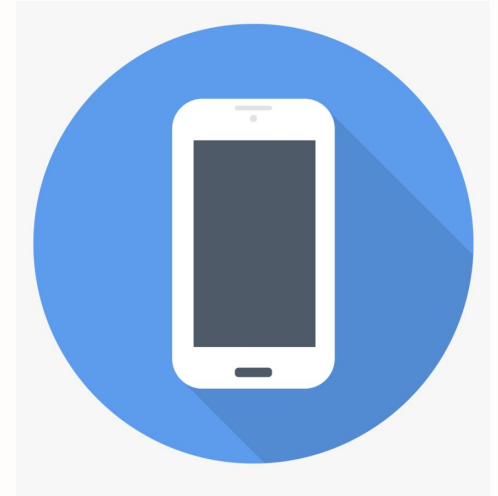
Advantages & Disadvantages of Mobile Products

Advantages

- Speed & Performance
- Notification Systems
- Improved UX
- Offline Access
- Promotional Opportunities
- Clear path to revenue
- Immediately Accessible

Disadvantages

- Cost of Development
- Cost of Maintenance
- Approval is tedious and time-consuming.
- Limited to Operating System
- Requires constant development/updates
- Take up Storage Space

Examples

- Snapchat
- Instagram
- Spotify
- Uber
- Postmates
- Pinterest
- Facebook

Mobile PM vs. Traditional PM

MPMs utilize functional wireframes & limited features.

1. Mobile apps have a **simpler presentation** than web or desktop applications.
2. Because the user only sees a basic user interface, the application must be designed to function properly with limited space.
3. Mobile PMs prioritize functionality. The "smallness" of an application forces the MPM to limit features to only those that serve the app's purpose.

The product is constrained by the operating system (OS).

A mobile app's functionality is limited to the device's OS. The MPM needs to have a clear understanding of the chosen platform and **how the application will be developed to perform in that context.**
Apps are dependent on the mobile platform's life cycle. If Google makes a dramatic change to Android that affects your app, you may spend unplanned development time fixing the problem.

MPMs pay more attention to new metrics.

MPMs must be familiar with some metrics that traditional PMs never consider. The metrics MPMs use relate to the user's likeliness to use the application more than once.
Creating an application that encourages user adoption is key. In a sense, the MPM becomes a **marketer**.
Think push notifications, emails, in-app promotional advertising, and integrations with other apps.

MPMs oversee iterative development cycles.

Apps are routinely adjusted and refined over time based on customer feedback, analytics, usability studies, and other strategies. **MPMs need to recognize when to pivot to a new user or new solution.**
Building an iterative product doesn't just mean responding to bug fixes. It means **using data to create a customer driven product** that addresses the needs of your user base.

Thank you.

See you next week!

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