



# Best Practices in Product Management for V1 Web Products

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Silicon Valley Product Management  
Association (SVPMA)

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How the customer described it



How the product manager envisioned it



The alpha version of the product



The beta version of the product



What marketing advertised



What was ready by the original launch date



What the press had to say about it



What the customer really wanted

# What I'm Covering

- What is product management?
- Understanding customer needs
- Prioritization and maximizing ROI on engineering resources
- Validating your product concept
- UI design
- User feedback / usability testing

Will post slides to [slideshare.net/dan\\_o](https://slideshare.net/dan_o)

# My Background

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- Education
  - BS, Electrical Engineering, Northwestern
  - MS, Industrial Engineering, Virginia Tech
  - MBA, Stanford
  - Web development and UI design
- 19 years of Product Management Experience
  - Managed submarine design for 5 years
  - 5 years at Intuit, led Quicken Product Management
  - Led Product Management at Friendster
  - PM consultant to startups: Box.net, YouSendIt, Epocrates
  - CEO & Cofounder of YourVersion, startup building “Pandora for your real-time web content”

# Quick Poll of Audience

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- Job function
  - Product Management
  - Marketing
  - Other business role
  - Designer
  - Technical (Developer, QA, Ops)
- Company size
  - Small < 50 people
  - Mid-size 50 – 500 people
  - Large > 500 people
- Consumer vs. B2B

# What is Product Management?

# Product Management is Critical Link in Value Creation

## Market

- Current customers
- Prospective customers
- Competitors

## Product Management

## Development Team

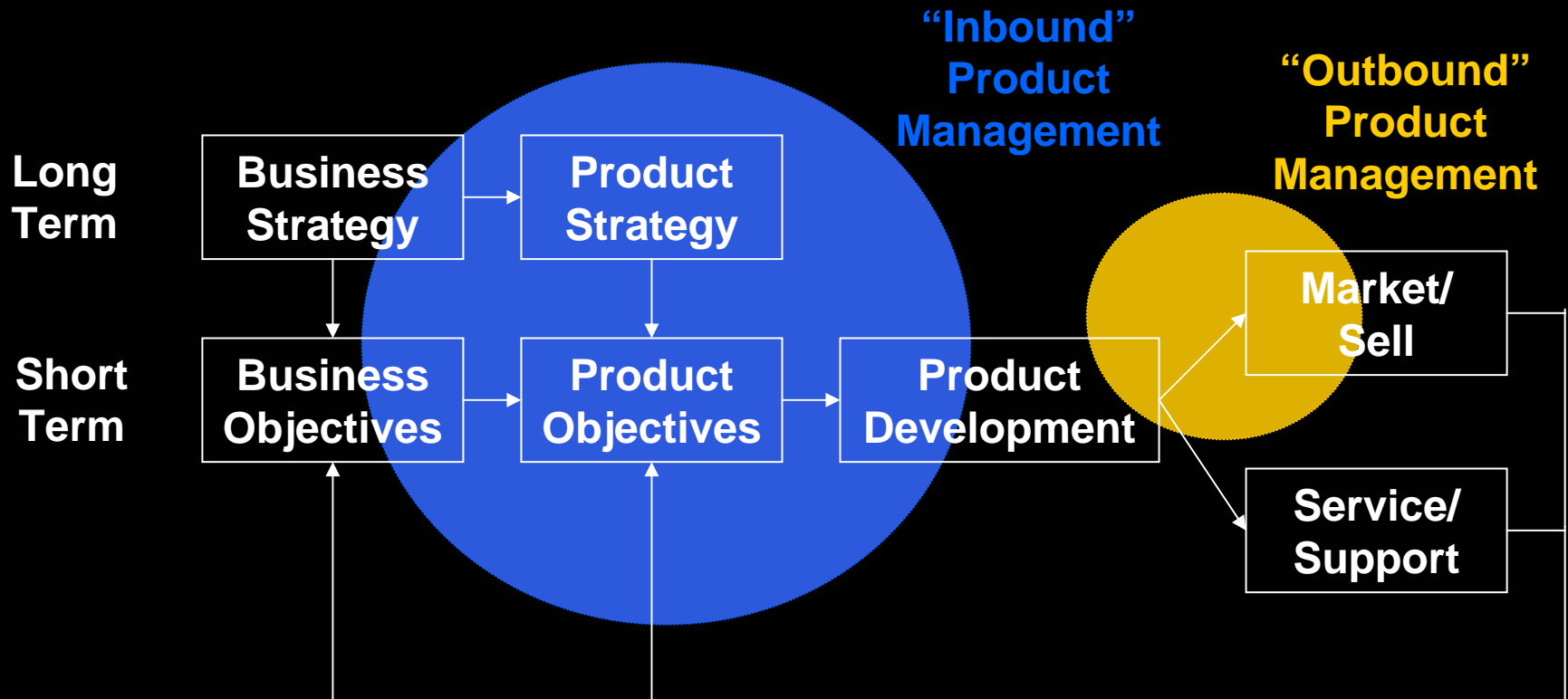
# A Product Manager by any Other Name Would Smell as Sweet

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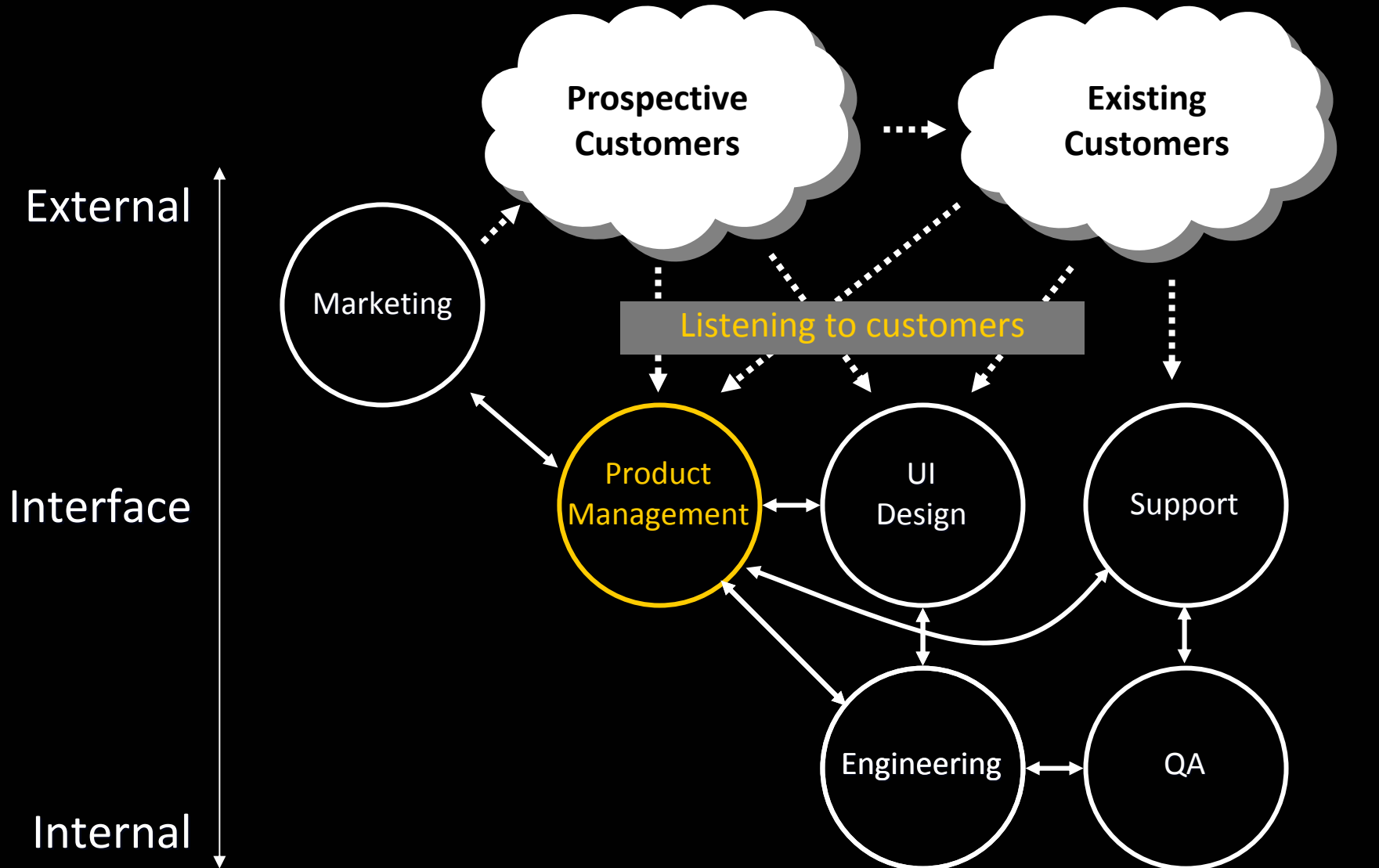
- Product managers are sometimes called
  - Product marketing manager
  - Program manager
  - Project manager
- Label and definition of role can vary
  - Based on industry or company
  - Based on B2C (consumer) vs. B2B (enterprise)
  - Based on stage of company
- Can be area of responsibility vs. actual position



# A Process View of Product Management



# Overlap in PM and UI Design Roles



# The Product Manager's Job: A Successful Product

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- Be the expert on the market and the customer
- Translate business objectives and customer needs into product requirements
- Be the clearinghouse for all product ideas
- Work with team to design & build great product
- Define and track key metrics
- Identify, plan & prioritize product ideas to maximize ROI on engineering resources

# Understanding Customer Needs

# For a V1 Product, Which is More Important?



or



Qualitative  
Information?

Quantitative  
Information?

**“When you’re Small,  
start with Qual!”**

# How is developing a v1 Product Different from developing a Later Stage Product?

- With a v1 stage product, you have WAY MORE uncertainty about:
  - Who your target customers really are
  - Which customer needs you should address
  - How to best meet those needs
  - What product design works best
- These are qualitative learnings/decisions
- Quantitative is also valuable (later)

# What's the Formula for Product-Market Fit?

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- A product that:
  - Meets customers' needs
  - Is better than other alternatives
  - Is easy to use
  - Has a good value/price
- Simple, right?
- It's easy to understand conceptually what we want to achieve
- HOW to achieve it is the hard part

# Problem Space vs. Solution Space

## ■ Problem Space

- A customer problem, need, or benefit that the product should address
- A product requirement

Example:

- Ability to write in space (zero gravity)

## ■ Solution Space

- A specific implementation to address the need or product requirement



- NASA: space pen (\$1 M R&D cost)
- Russians: pencil



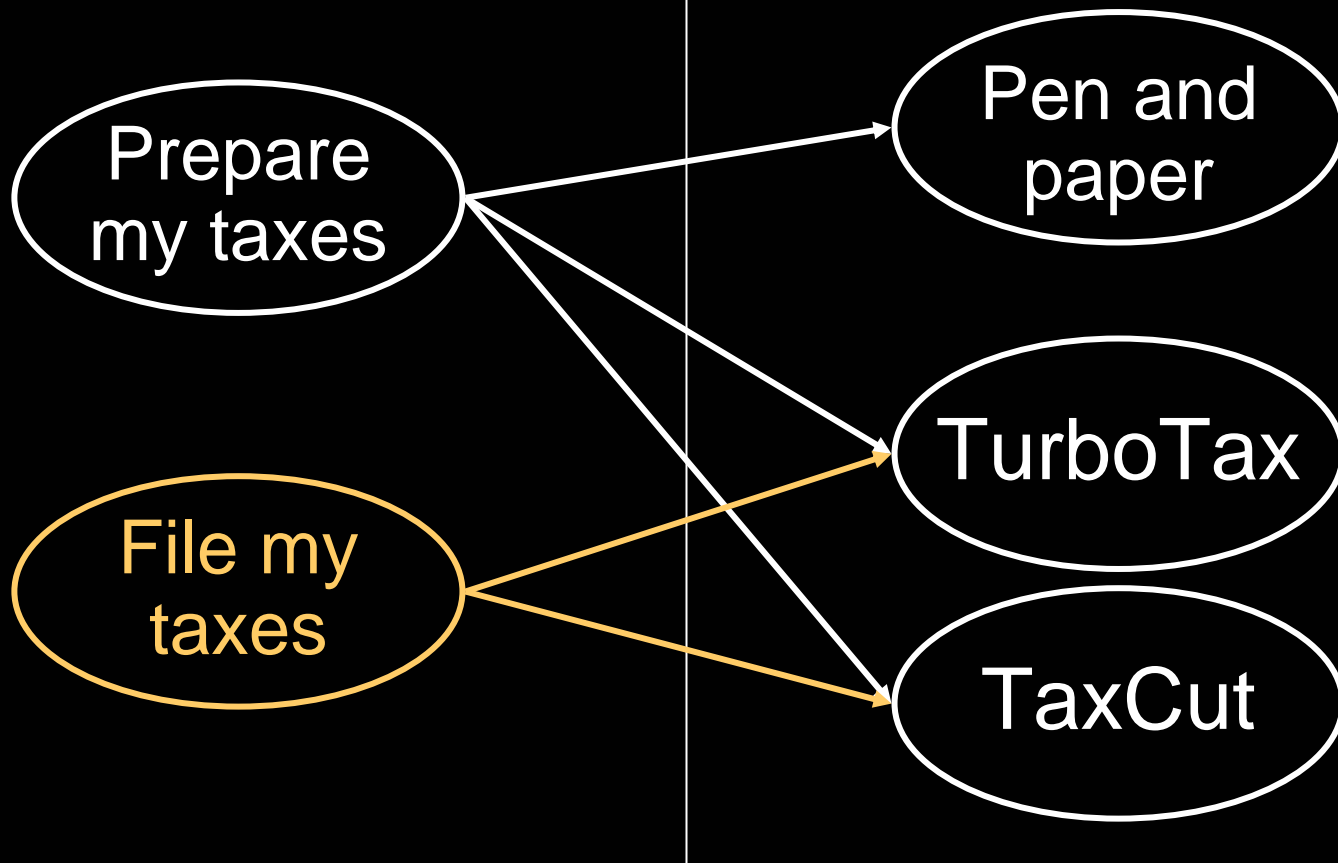


# Problem Space vs. Solution Space

## Product Level

Problem Space  
(user benefit)

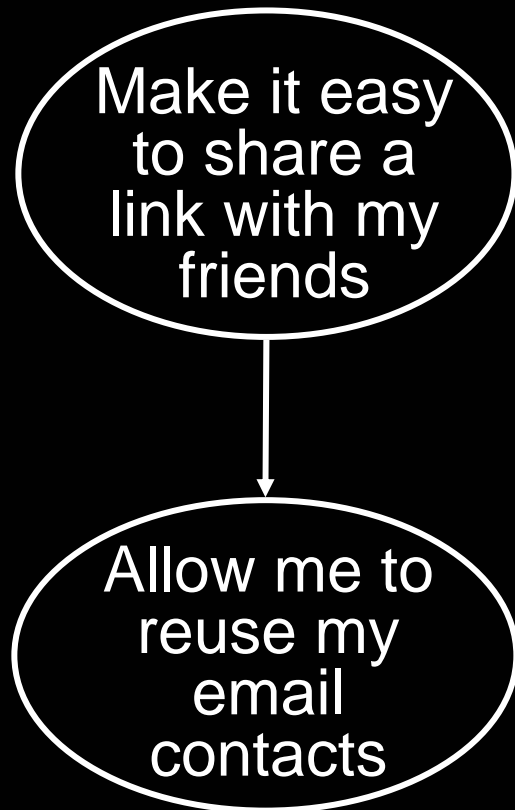
Solution Space  
(product)



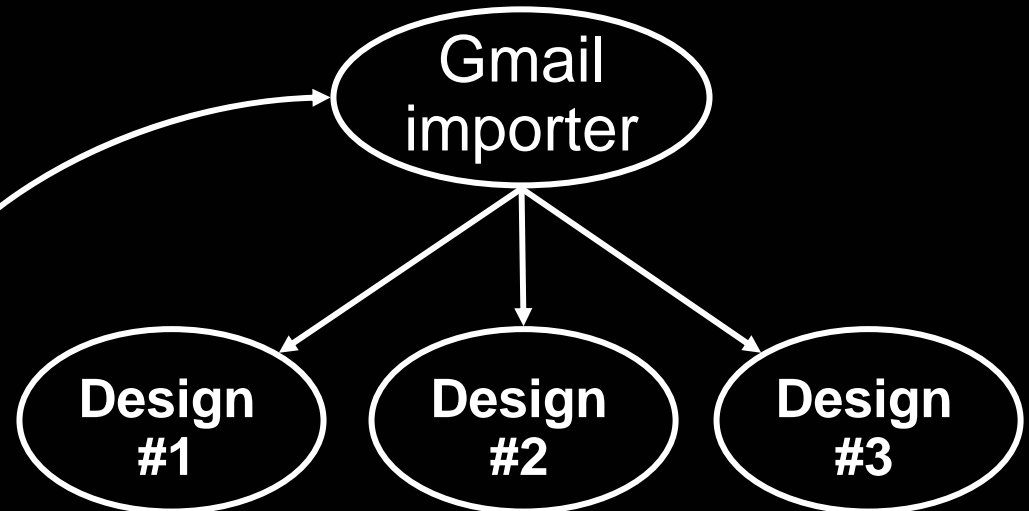
# Problem Space vs. Solution Space

## Feature Level

### Problem Space (user benefit)



### Solution Space (feature)



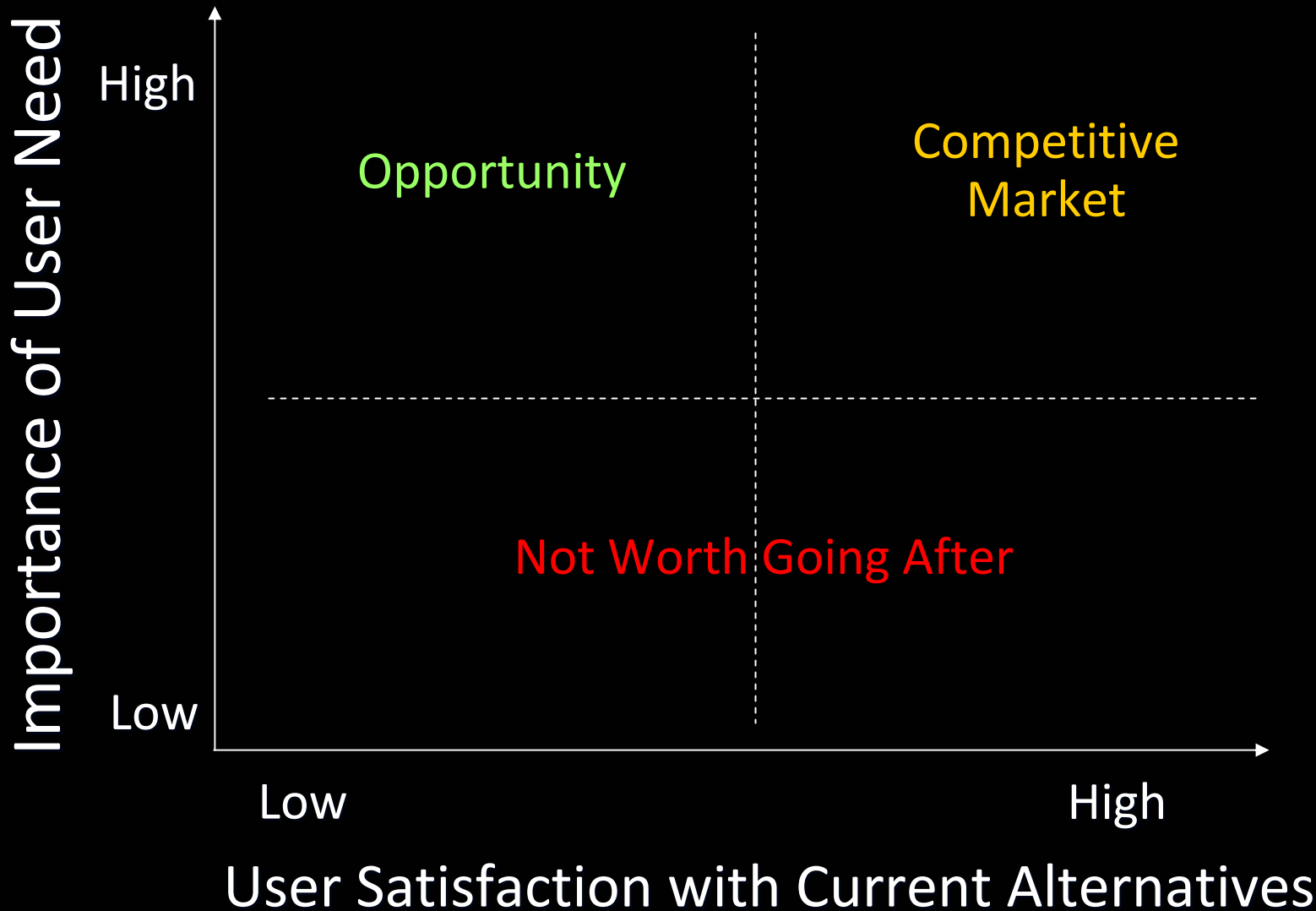
Design	Preview with checkboxes	User can edit before import
#1	No	No
#2	Yes	No
#3	Yes	Yes

# How Do You Prioritize User Benefits and Product Features?

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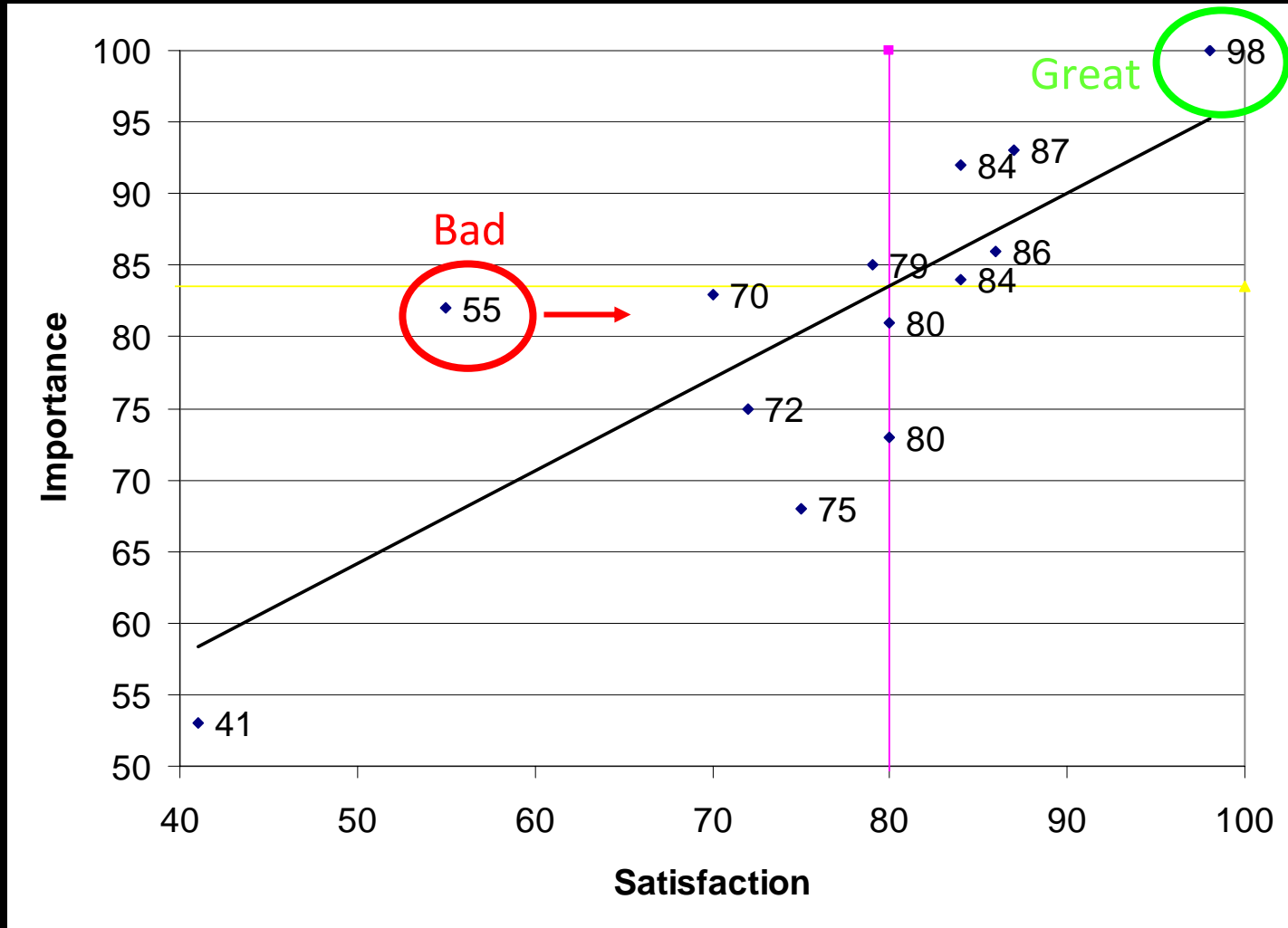
- Need a framework for prioritization
  - Which user benefits should you address?
  - Which product features to build (or improve)?
- Importance vs. Satisfaction
  - Importance of user need (problem space)
  - Satisfaction with how well a product meets the user's need (solution space)
- Opportunity =  
High Importance need with low Satisfaction

# High Importance + Low Satisfaction = Opportunity



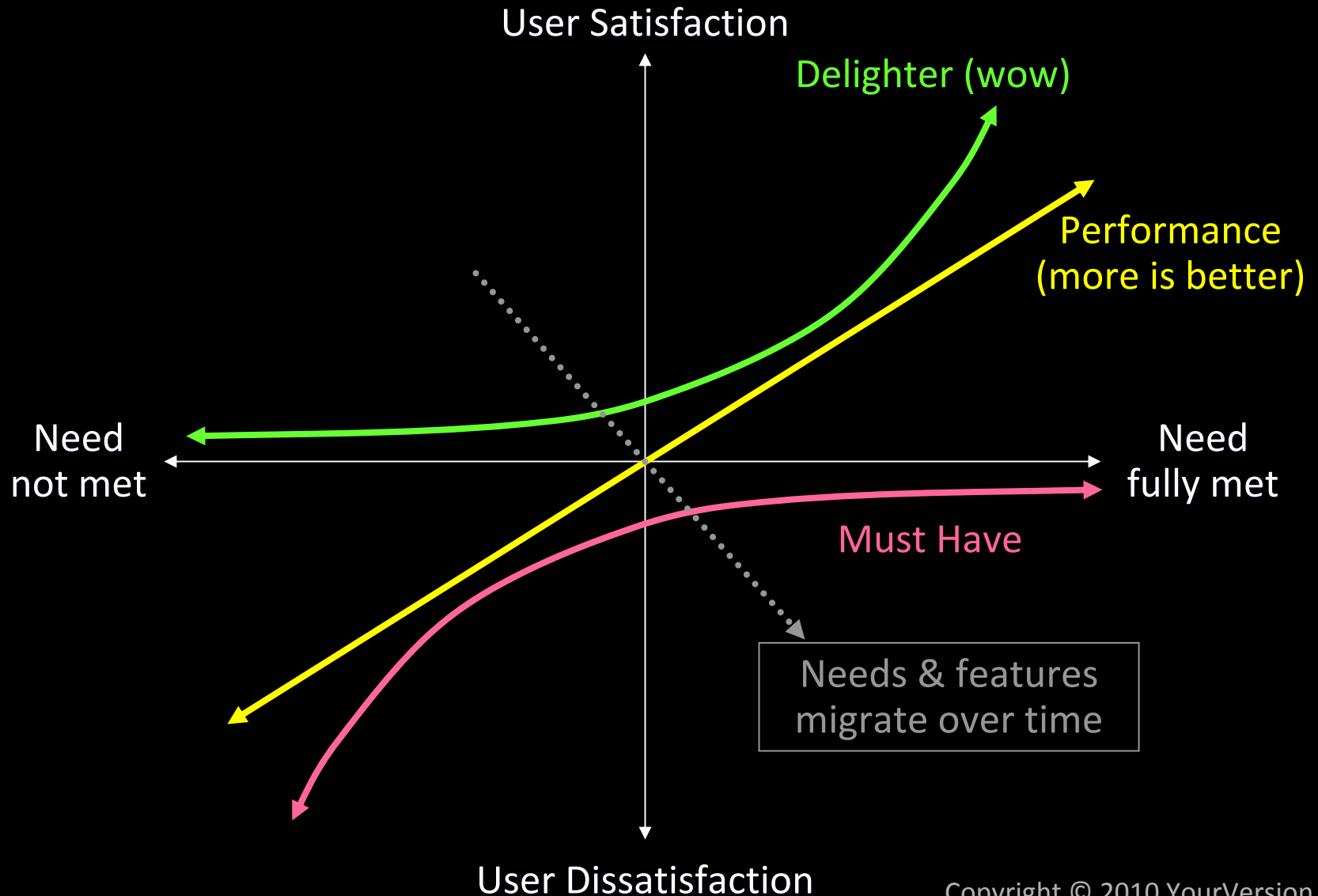
# Importance vs. Satisfaction

## Ask Users to Rate for Each Feature



Recommended reading: "What Customers Want" by Anthony Ulwick

# Kano Model: User Needs & Satisfaction



# Olsen's Hierarchy of Web User Needs (adapted from Maslow)

## Customer's Perspective

How easy to use is it?

Does the functionality meet my needs?

Does the functionality work?

Is the site fast enough?

Is the site up when I want to use it?

## What does it mean to us?

Usability & Design

Feature Set

Absence of Bugs

Page Load Time

Uptime

Increasing  
Satisfaction

Decreasing  
Dissatisfaction

# What is Your Value Proposition?

- Which user benefits are you providing?
- How are you better than competitors?

	<b>Competitor A</b>	<b>Competitor B</b>	<b>You</b>
Must Have Benefit 1	Y	Y	Y
Performance Benefit 1	High	Low	Med
Performance Benefit 2	Low	High	Low
Performance Benefit 3	Med	Med	High
Delighter Benefit 1	Y	-	-
Delighter Benefit 2	-	-	Y

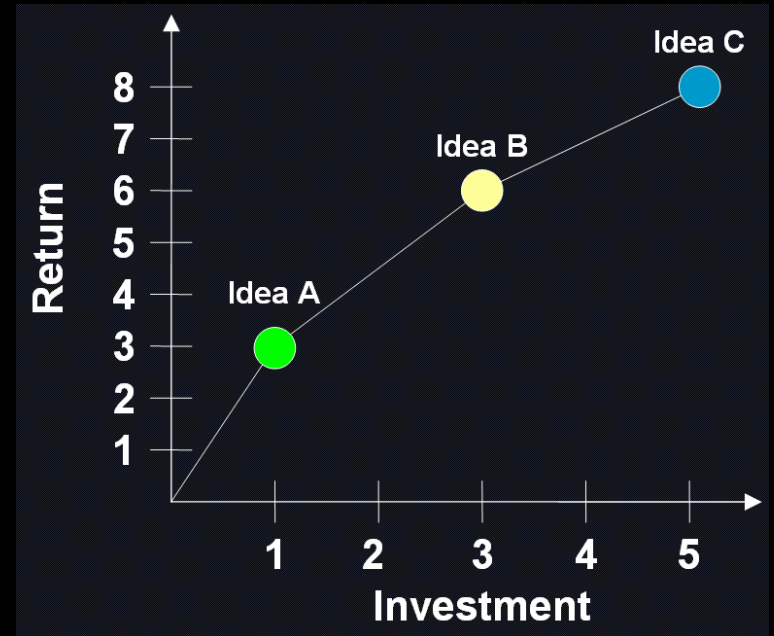
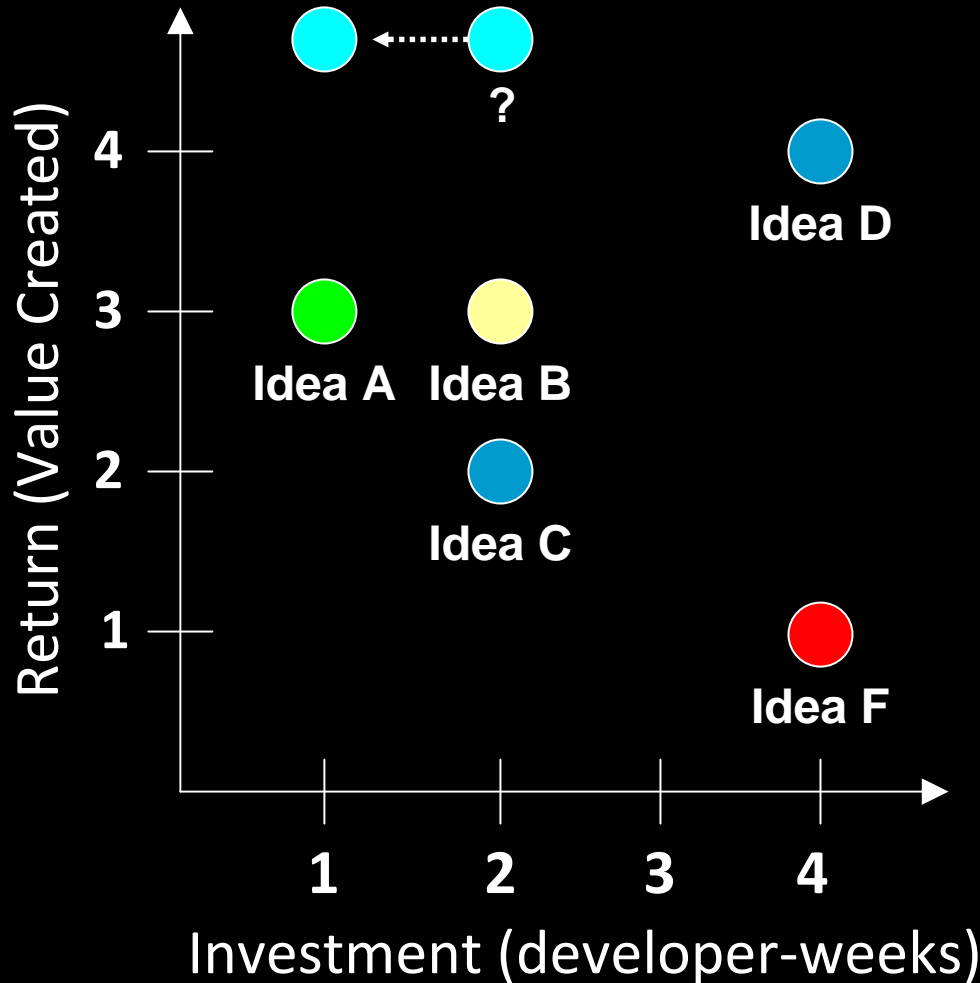


# Prioritization and Scope

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- Customer value is only half the equation
- How much engineering effort will it take?
- Need to consider value and effort (ROI)
- Ruthlessly prioritize: rank order
- Be deliberate about scope & keep it small
  - It's easy to try to do too much
  - Strategy = deciding what you're NOT doing
  - Break features down into smaller chunks
  - Smaller scope → faster iterations → better

# Prioritizing Product Ideas by ROI



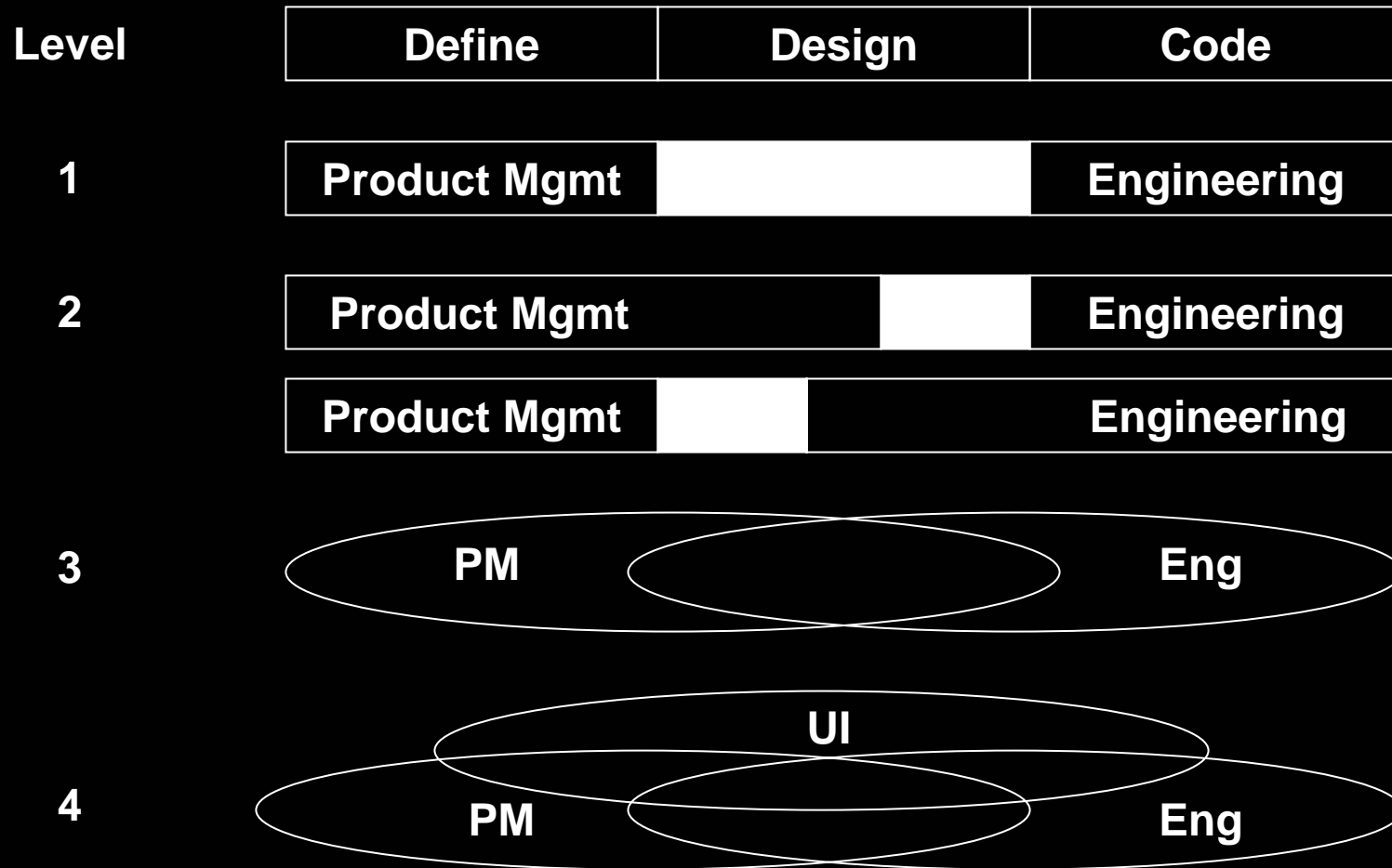
# UI Design and Ease of Use

# User Benefits vs. Ease of Use

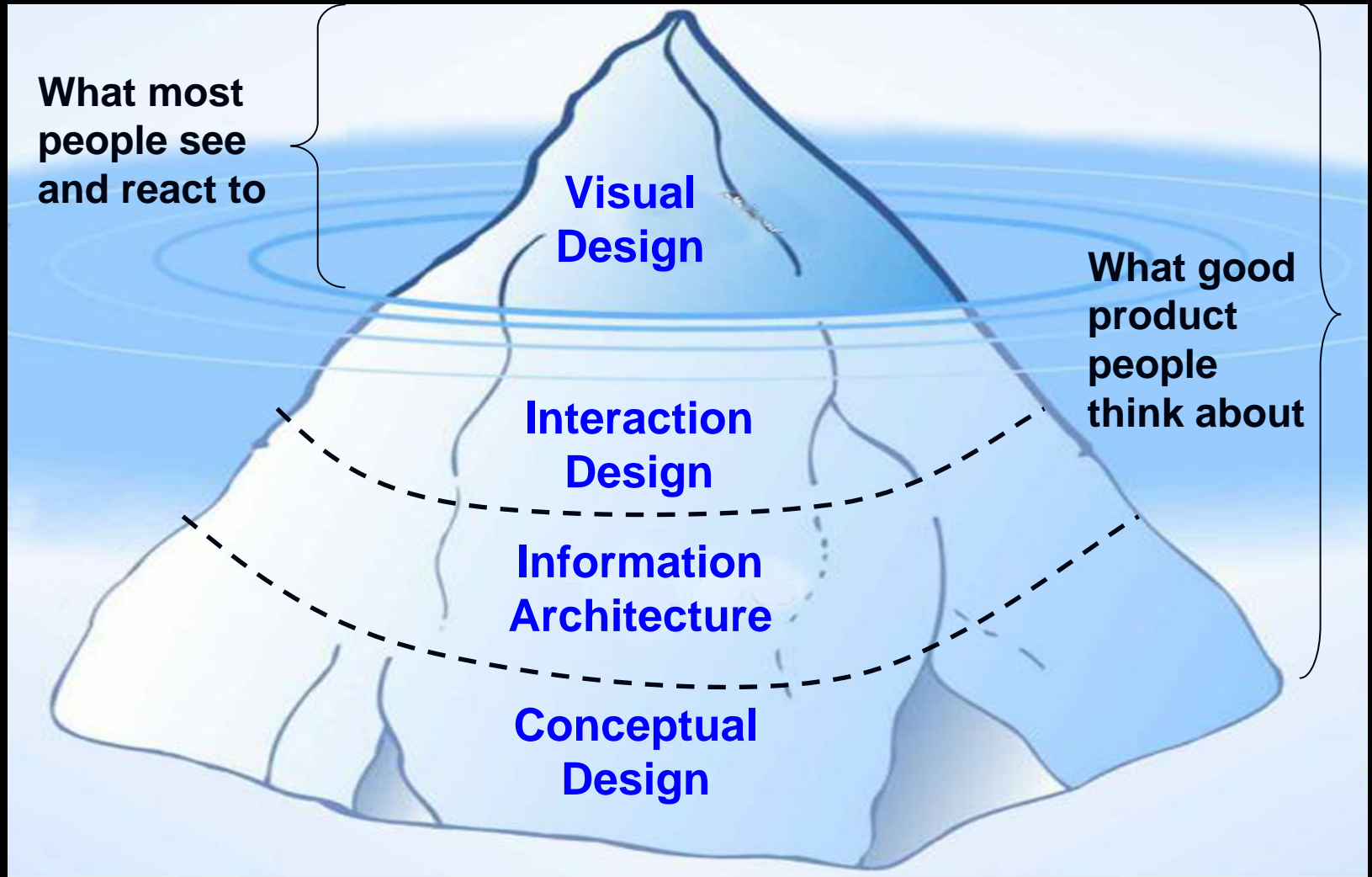
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- Q: If two products equally deliver the exact same user benefits, which product is better?
- A: The product that's easier to use
- “Ease of use” provides benefits
  - Saves time
  - Reduces cognitive load
  - Reduces frustration
- UI Design can be differentiator
- Olsen's Law: “The less user effort required, the higher the percentage of users who will do it”

# The Design Gap in Many Teams



# The UI Design Iceberg



Recommended reading: Jesse James Garrett's  
"Elements of User Experience" chart, free at [www.jjg.net](http://www.jjg.net)

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# Elements of User Interface Design

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Consists of Three Distinct Elements:

- Information Architecture
  - Structure and layout at both site and page level
  - How site is structured (sitemap)
  - How site information is organized (site layout)
  - How each page is organized (page layout)
- Interaction Design
  - How user and product interact with one another
  - User flows (e.g., navigation across multiple pages)
  - User input (e.g., controls and form design)
- Visual Design
  - “How it looks” vs. “What it is”, often called “chrome”
  - Fonts, colors, graphical elements

# Learning from Customer Feedback



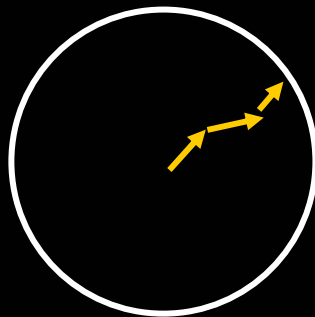
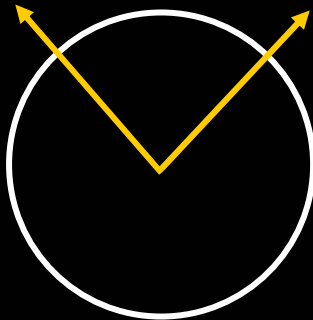
# Iterating Your Product Vector Based on User Feedback in Solution Space

## Problem Space

(your mental model)

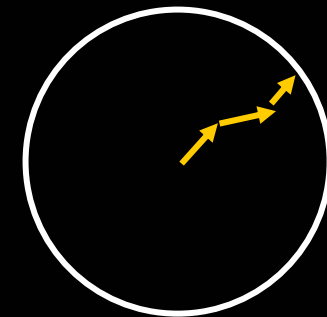
Help user  
book travel

Help user  
plan travel

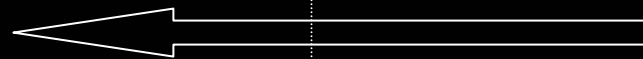
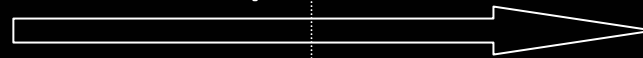


## Solution Space

(what users can react to)



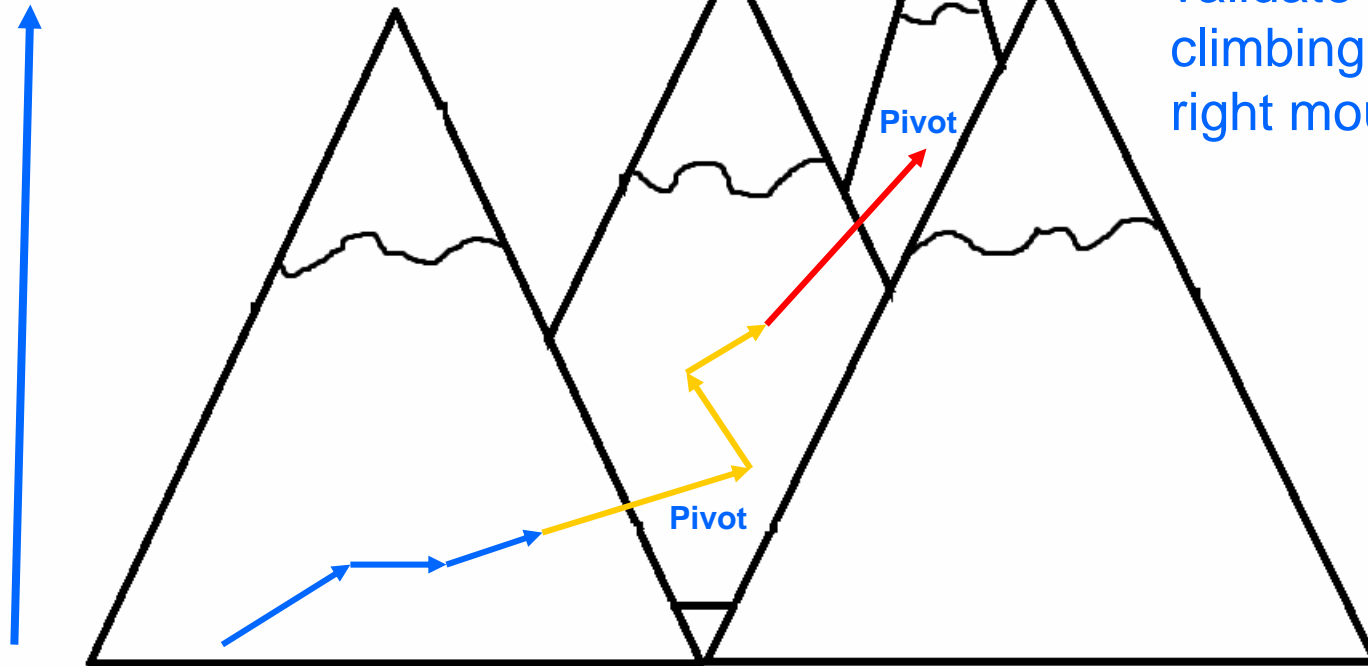
Mockups / Code



Customer Feedback

# Persevere or Pivot?

Increasing  
Product-Market  
Fit



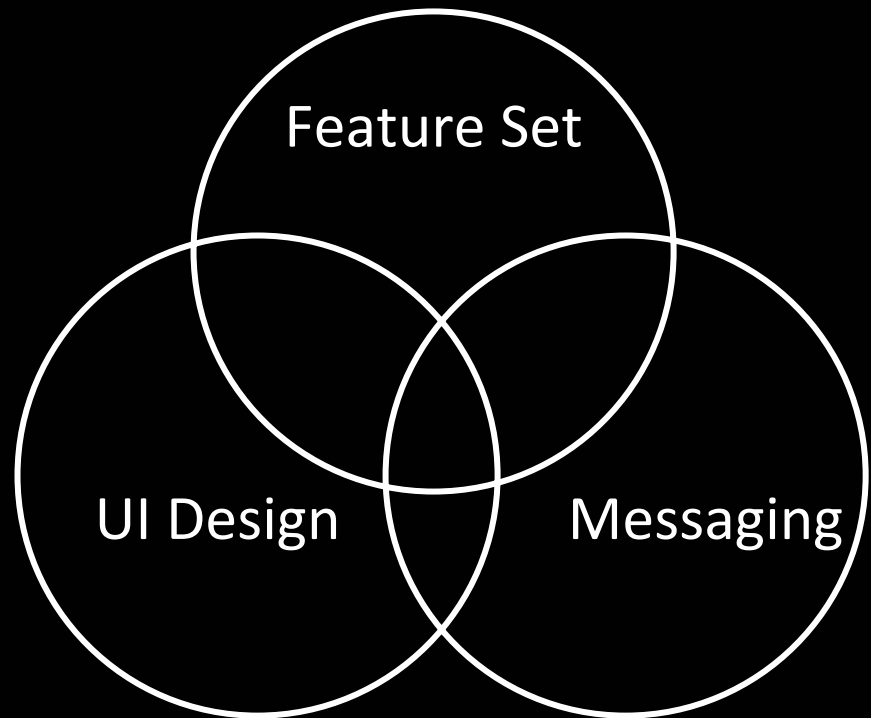
**Product-Market Fit =**  
Getting enough data to  
validate that you're  
climbing up the  
right mountain

# What Are You Getting Feedback & Learnings About?

Problem Space  
(your mental model)



Solution Space  
(what users can react to)



# What Can Solution Space Objects Can You Test with Customers?

- Range of solution space options:
  - Wireframe: low-fidelity graphics
  - Mockup: high-fidelity graphics
  - Prototype: interactive graphics or code
  - Alpha product: production code
- Graphics usually quicker/cheaper to change than code
- Goal is to gain learnings quickly

# The Value of User Feedback Sessions

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- Critical to talk with customers 1-on-1
- Gain better understanding of
  - Customer needs and problems
  - Issues with your feature set, UI, messaging
  - What alternatives customers are using, pros & cons of each, customer preferences
  - QA: use cases & bugs you haven't seen
- Really a “user learning” session
- Make test as real for user as possible

# “Ramen” User Feedback for Startups

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- Anyone can do it!
- Ingredients:
  - Solution-space product/mockup to test
  - 1 customer (with laptop if testing code)
  - 1 desk
  - 1 person to conduct the session
  - Pen and paper
  - Optional note-taker and observers

# Typical Format for Customer Session

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- 5 - 10 min: Ask questions to understand user needs and solutions they currently use
- 30 - 50 min: User feedback
  - Show user product/mockup
  - Non-directed as much as possible
  - When necessary, direct user to attempt to perform a specific task
- 5 - 10 min: Wrap-up
  - Answer any user questions that came up
  - Point out/explain features you want to highlight
  - Ask them if they would use the product

# Dos & Don'ts of Conducting Usability

## ■ Do

### ■ Explain to the user:

- Their usability test will help improve the product
- Not to worry about hurting your feelings
- “Think Aloud Protocol”

### ■ Ask user to attempt the task, then be a fly on the wall

### ■ Ask non-leading, open-ended questions

### ■ Take notes and review them afterwards for take-aways

## ■ Don't

### ■ Ask leading questions

### ■ “Help” the user or explain the UI (e.g., “click over here”)

### ■ Respond to user frustration or questions (until test is over)

### ■ Get defensive

### ■ Blame the user



# Case Study on Product-Market Fit: MarketingReport.com

# Product-Market Fit Case Study: MarketingReport.com

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- My consulting client, CEO of TrustedID, had an idea for a new product
- Team: me, CEO, head of marketing, UI design consultant
- Goal:
  - Validate product-market fit quickly, cheaply without writing a single line of code
  - Determine if there was a business opportunity here

# Product-Market Fit Case Study: Developing Product Concept

- Product Concept was “marketing report” that let consumers control the direct mail that they receive
- Concept was fuzzy with various components, so we broke it into 2 different “flavors”:
  - #1 “Marketing Shield”: Service to reduce/stop junk mail
  - #2 “Marketing Saver”: Opt in & receive money-saving offers
  - Each product concept consisted of several modules that each mapped to a specific user benefit
- Worked with UI designer to create paper mockups of pages for each flavor concept (5 pages each)



# See Your Marketing Report & Score Today

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See Report

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## Marketing Report

### Marketing Profile



#### Home Sweet Home

Home Sweet Home – Occupying the nation's suburbs, the residents of Home Sweet Home tend to be upper-middle-class married couples living in mid-sized homes with few children. Most are in their 40s and 50s, own their home, have gone to college, and hold professional jobs. With their upscale incomes and small families, these folks have fashioned comfortable lifestyles, filling their homes with toys, TV sets and pets.

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### Marketing Shield™

MarketingShield gives you new levels of control over how your Marketing Report information is used.

Each year, advertisers send over 100 billion pieces of junk mail to Americans. Now, for the first time, you can tell marketers exactly what kind of mail you want to stop!

- ✓ Reduce your junk mail
- ✓ Opt-out of mail from specific types of companies
- ✓ Increase your privacy

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### Your Privacy

MarketingReport.com Privacy Promise  
Your privacy is our top priority. We realize MarketingReport.com contains sensitive, personal information. We pledge to protect your information. We will:

- Maintain the complete confidentiality of all information;
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### Marketing Score

**755**

Out of 900

How well do marketers know you? How attractive is your report to a marketer? How could your marketing score effect the quality of marketing offers you get?



[Learn More](#)

### Compare Yourself



Advertisers make decisions about whether to market to you by comparing you to other people. Now, for the first time, you can compare your marketing profile to others - either across the street or across the country.

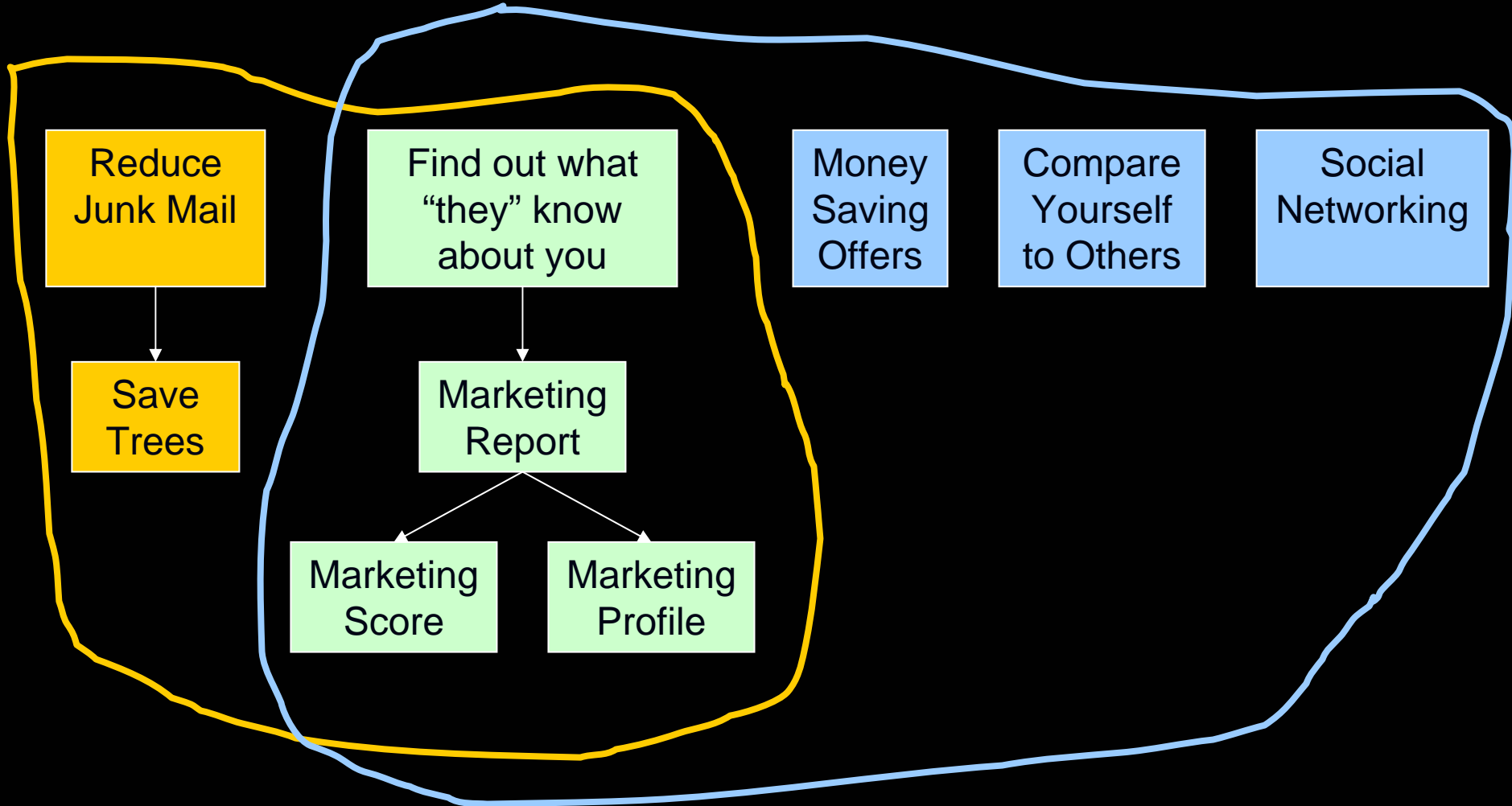
- ✓ See advertisers' maps of your neighborhood
- ✓ Find out how your income stacks up
- ✓ See top cities for people like you

[Learn More](#)

# Clustering Potential User Benefits to Create Product Concepts

## “Shield” Concept

## “Saver” Concept



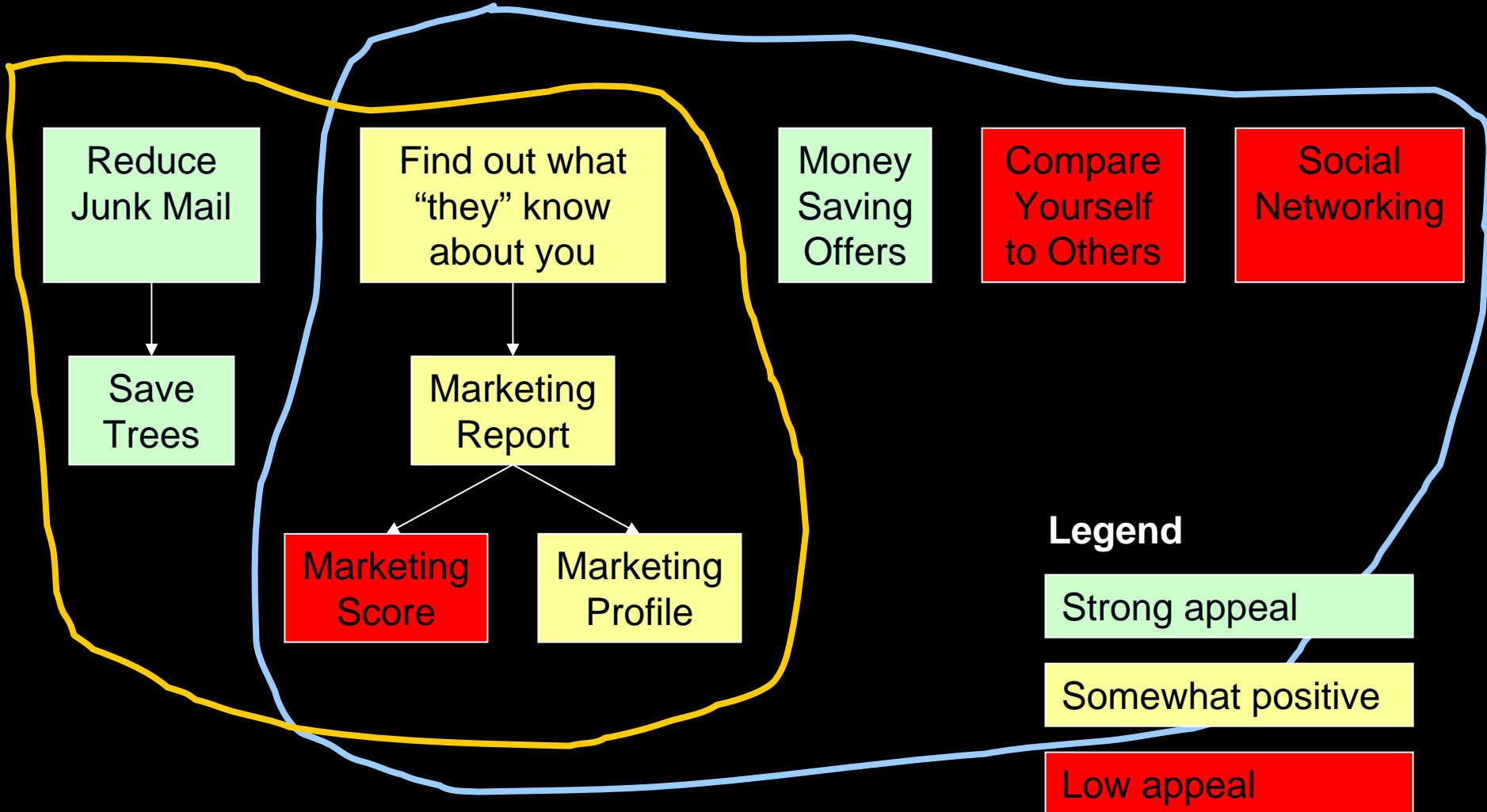
# Product-Market Fit Case Study: Recruiting People

- Telephone recruit of prospective customers
  - Wrote phone-screen questionnaire to create rough target customer segmentation
    - Wanted users who work full-time & use internet
    - Fit for opt-in concept: use coupons, Costco membership
    - Fit for anti-junk mail concept: use paper shredder, block caller ID
- Scheduled 3 groups of 2 or 3 people to discuss each product concept for 90 minutes
- Moderated each group through the paper mockups to hear their feedback

# Product-Market Fit Case Study: Findings on Concepts & User Benefits

## “Shield” Concept

## “Saver” Concept





# Product-Market Fit Case Study: Learnings from Research

- Learned that “Shield” (anti-junk mail) concept was stronger than “Saver”
- People didn’t like many of the “Saver” concept components
- Learned users’ concerns / questions about “Shield” concept
- Refined “Shield” concept:
  - Removed irrelevant components
  - Improved messaging to address user concerns / questions
- Validated revised “Shield” concept with quick 2<sup>nd</sup> round of tests
  - No customer concerns
  - Clear willingness to pay

## Junk mail causes identity theft. We **stop** it.

Tired of shredding those credit cards you never asked for, checks you never ordered and refinance offers that look too good to be true? Why not cut the junk mail off at the source. With JunkmailFreeze™, a free service from the people at Trusted ID, that's exactly what you can do. [Learn More](#)

- ✓ Reduce the risk of identity theft
- ✓ Stop the junk mail ID thieves want
- ✓ Spend less time shredding mail
- ✓ Help the environment. Save 43 trees!
- ✓ 100% free service



**Pick categories**   **Register**   **Stop junk mail**  
In less than 3 minutes, you can stop your junk mail



### Stop your junk mail today!

Pick the categories you want to stop:

- Cash advance checks 
- New credit card offers
- Pre-approved credit card offers

*Over 50 additional categories on the next page!*

**Get Started**

# Product-Market Fit Case Study: Summary

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- 4 weeks from 1<sup>st</sup> meeting to validated product concept
- Cost \$1,500 to talk with 20 users (\$75 each)
- 1 round of iteration on product concept
- Identified compelling concept that users are willing to pay \$10/month for
- Trimmed away non-valuable pieces
- You can achieve similar results

# Getting Quantitative: Optimization Using Metrics

# Approaching Your Business as an Optimization Exercise

Given reality as it exists today,  
optimize our business results  
subject to our resource constraints.

# Define the Equation of your Business

## “Peeling the Onion”

### Advertising Business Model:

Profit = Revenue - Cost

↓  
Unique Visitors x Ad Revenue per Visitor

↓  
Impressions/Visitor x Effective CPM / 1000

↓  
Visits/Visitor x Pageviews/Visit x Impressions/PV

↓  
New Visitors + Returning Visitors

↓  
Invited Visitors + Uninvited Visitors

↓  
# of Users Sending Invites x Invites Sent/User x Invite Conversion Rate

# Equation of your Business Subscription Business Model

Profit = Revenue - Cost

↓  
Paying Users x Revenue per Paying User

↓  
New Paying Users + Repeat Paying Users

↓  
Trial Users x Conv Rate

↓  
Previous Paying Users x ( 1 – Cancellation Rate )

↓  
( SEO Visitors + SEM Visitors + Viral Visitors ) x Trial Conversion Rate

# How to Track Your Metrics

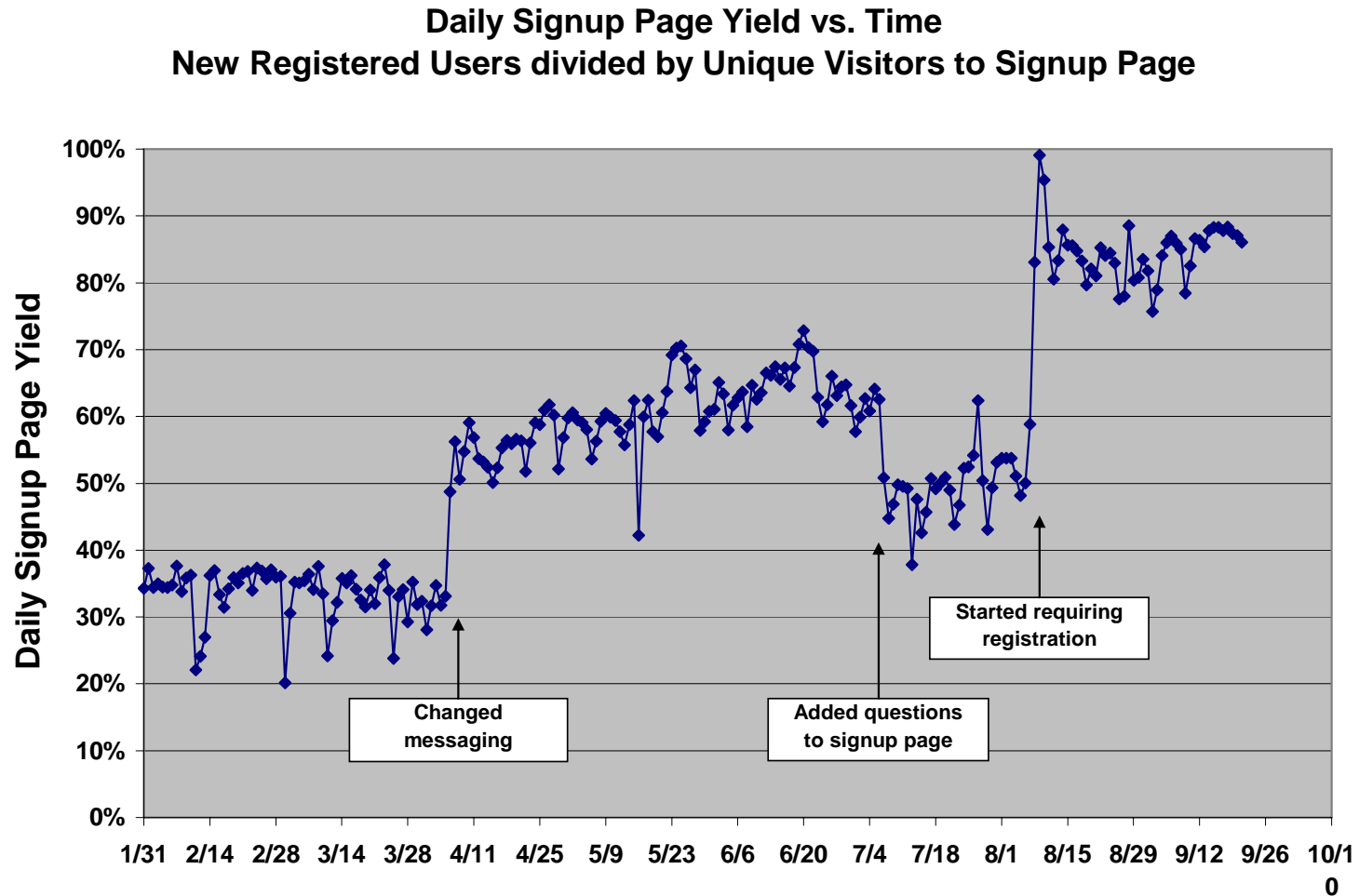
- Track each metric as daily time series

Date	Unique Visitors	Page views	Ad Revenue	New User Sign-ups	...
4/24/08	10,100	29,600	25	490	
4/25/08	10,500	27,100	24	480	
...					

- Create ratios from primary metrics:  $X / Y$ 
  - Example: How good is your registration page?
  - Okay: # of registered users per day
  - Better: registration conversion rate =  
# registered users / # uniques to reg page

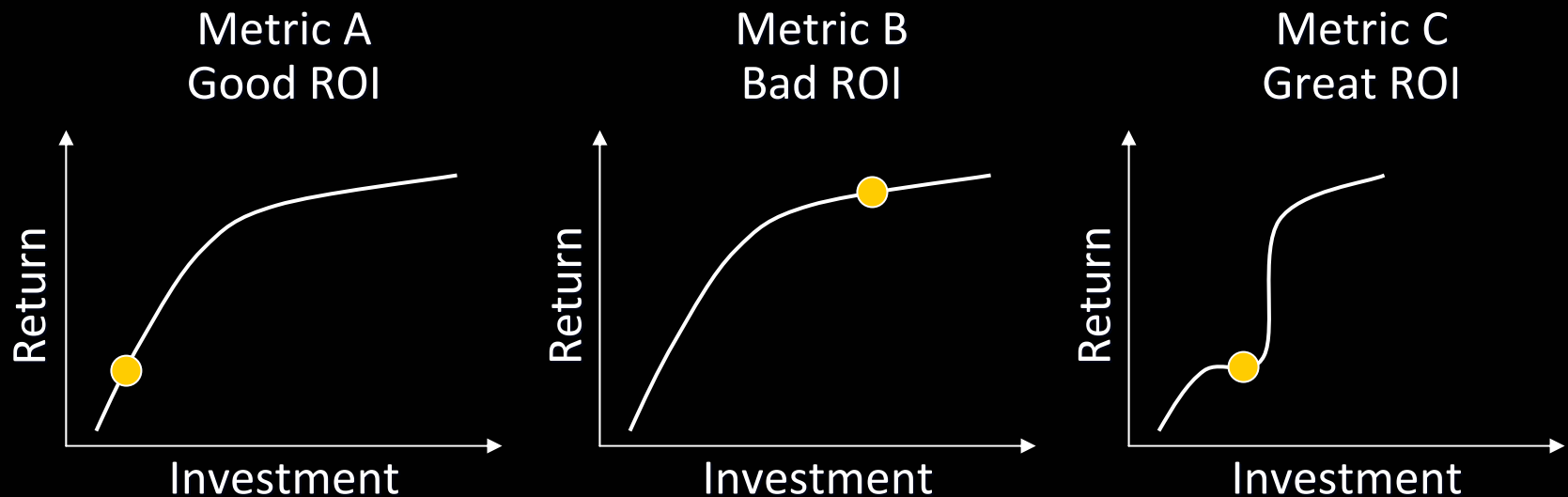


# Sample Signup Page Yield Data



# Identifying the “Critical Few” Metrics

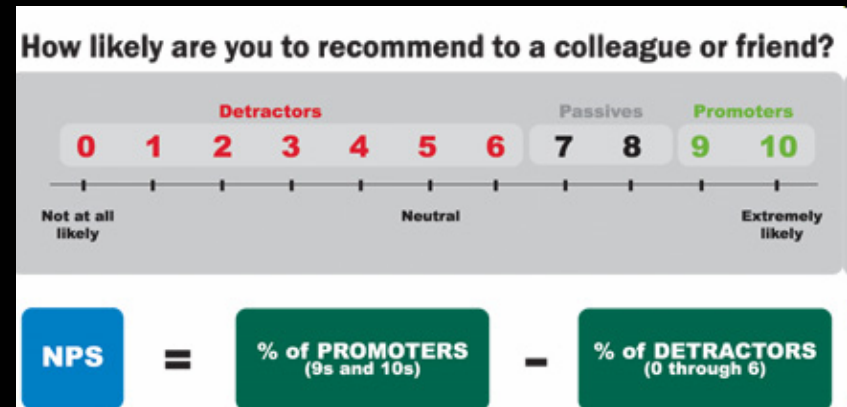
- What are the metrics for your business?
- Where is current value for each metric?
- How many resources to “move” each metric?
  - Developer-hours, time, money
- Which metrics have highest ROI opportunities?



# Metrics to Validate Product-Market Fit

## ■ Survey results

- Importance & Satisfaction
- Net Promoter Score



## ■ Survey.io

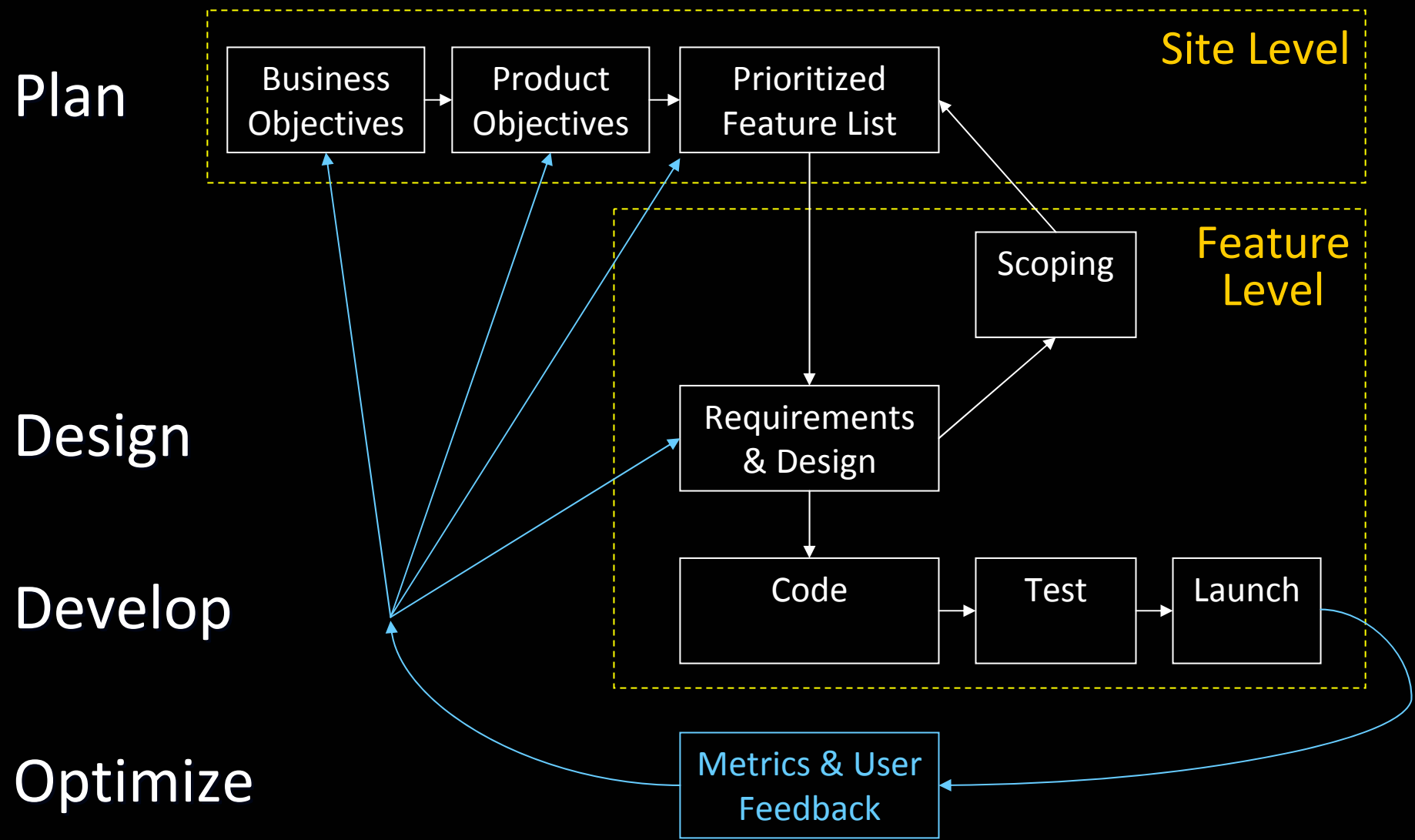
- “How would you feel if you could no longer use Product X?”
  - Very disappointed, Somewhat disappointed, Not disappointed

## ■ User behavior

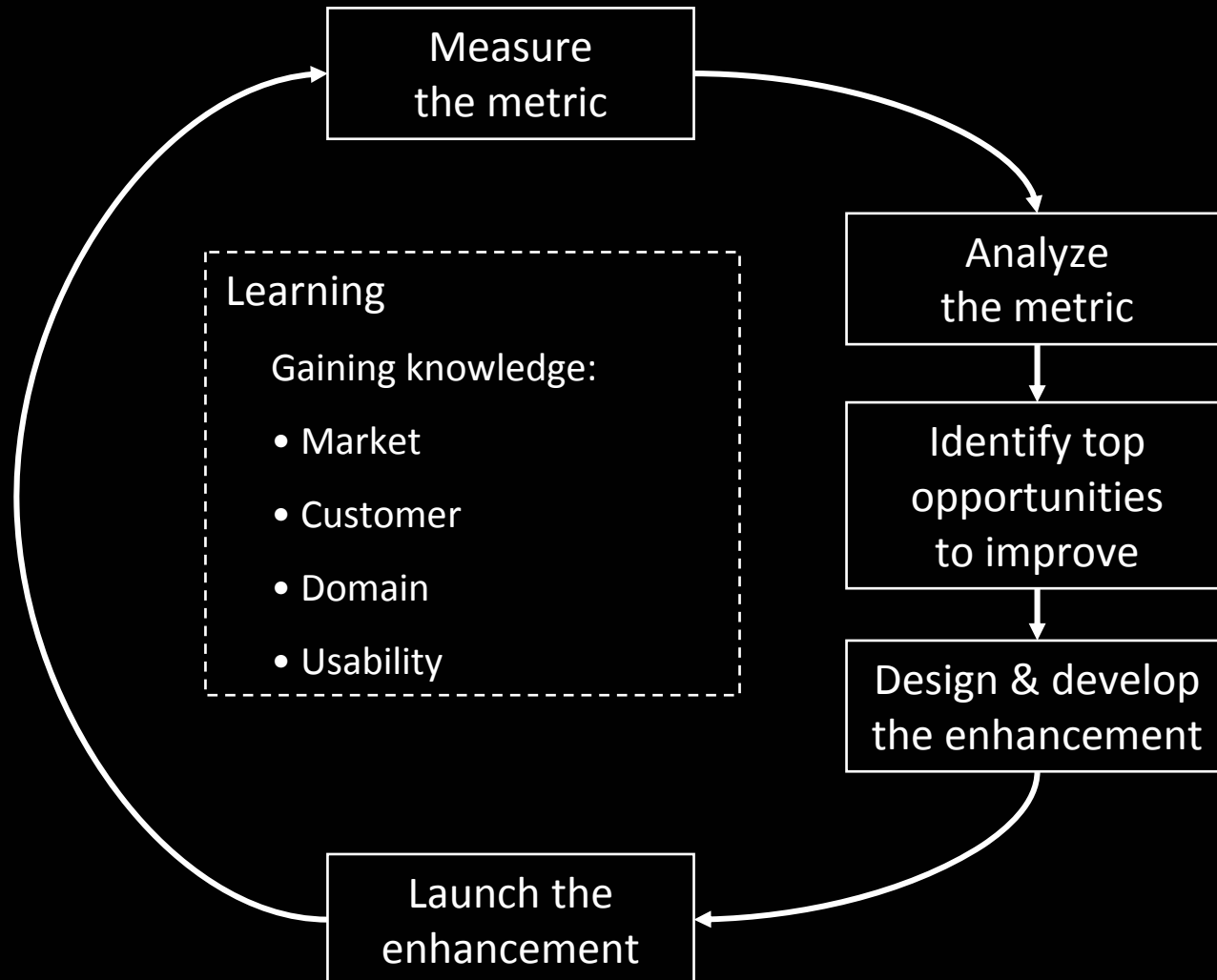
- Prospects sign up (high conversion rate)
- They keep using it (high retention rate)
- They use it often (high frequency of use)

# Continuous Improvement

# Adding Metrics and Optimization to your Product Process



# Optimization through Iteration: Continuous Improvement



# Product Management for V1 Products Cheat Sheet

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- Clarify problem space by iterating in the solution space & getting user feedback
- Revise feature set, UI design, and messaging to improve product-market fit
- Ruthlessly prioritize based on ROI
- Define equation of your business
- Identify and track key metrics
- Launch, learn, and iterate



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-Intimate, all-day workshop on Product Management, Design, & Marketing

-Sat June 12<sup>th</sup> in Palo Alto

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**Questions?**

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