



From Product Zero to Product Hero: How to Build a Great Web 2.0 Product

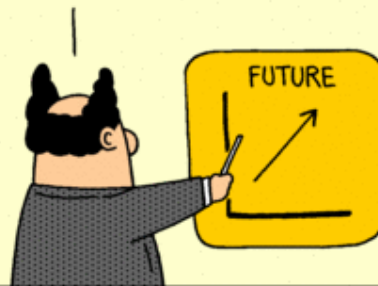
Dan Olsen, CEO, YourVersion
O'Reilly Web 2.0 Expo SF
March 29, 2011



SALES ARE
DROPPING
LIKE A ROCK.



OUR PLAN IS TO
INVENT SOME SORT
OF DOOHICKEY THAT
EVERYONE WANTS
TO BUY.



THE VISIONARY
LEADERSHIP WORK
IS DONE. HOW LONG
WILL YOUR PART
TAKE?



What's the Formula for a Great Web 2.0 Product?

- A product that:
 - Meets customers' needs
 - Is better than other alternatives
 - Is easy to use
 - Has a good value/price
- Also known as product-market fit
- Simple, right?
- It's easy to understand what a great product is at the conceptual level
- HOW to achieve that product is the hard part

My Background

- 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”

Will post slides to slideshare.net/dan_o

Understanding Customer Needs

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



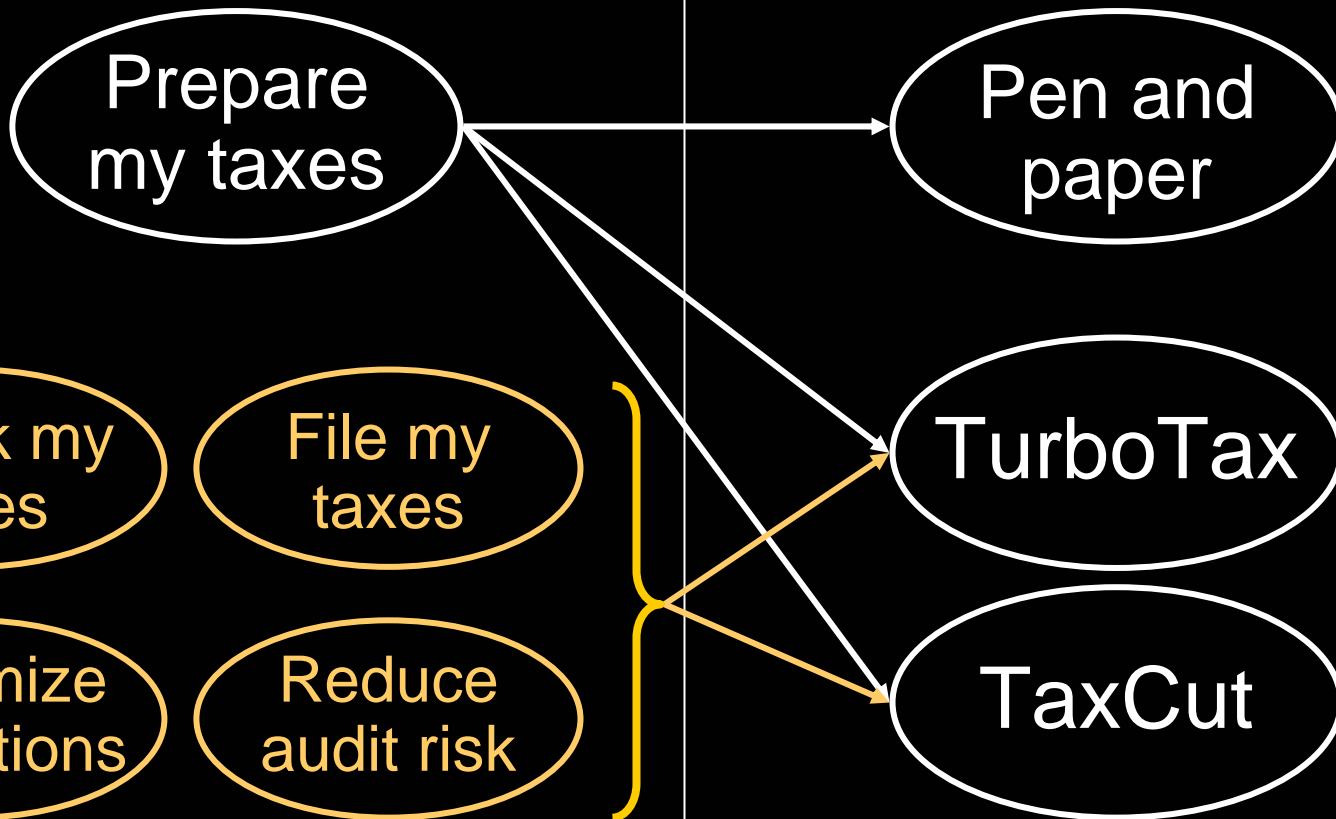
- NASA: space pen (\$1 M R&D cost)
- Russians: pencil



Problem Space vs. Solution Space: Product Level

Problem Space
(user benefit)

Solution Space
(product)



Problem vs. Solution Space: Feature Level

Problem Space

Solution Space

Empowerment/
Confidence



Help me
prepare taxes



Tax Interview
Wizard

Reduce my
audit risk



Audit Risk
Analyzer

Check my
return



Tax Return
Error Checker

Save Time



Save time
preparing taxes



Tax Data
Downloader

Save time filing
taxes



Electronic Tax
Return Filing

Save Money

Maximize my
tax deductions



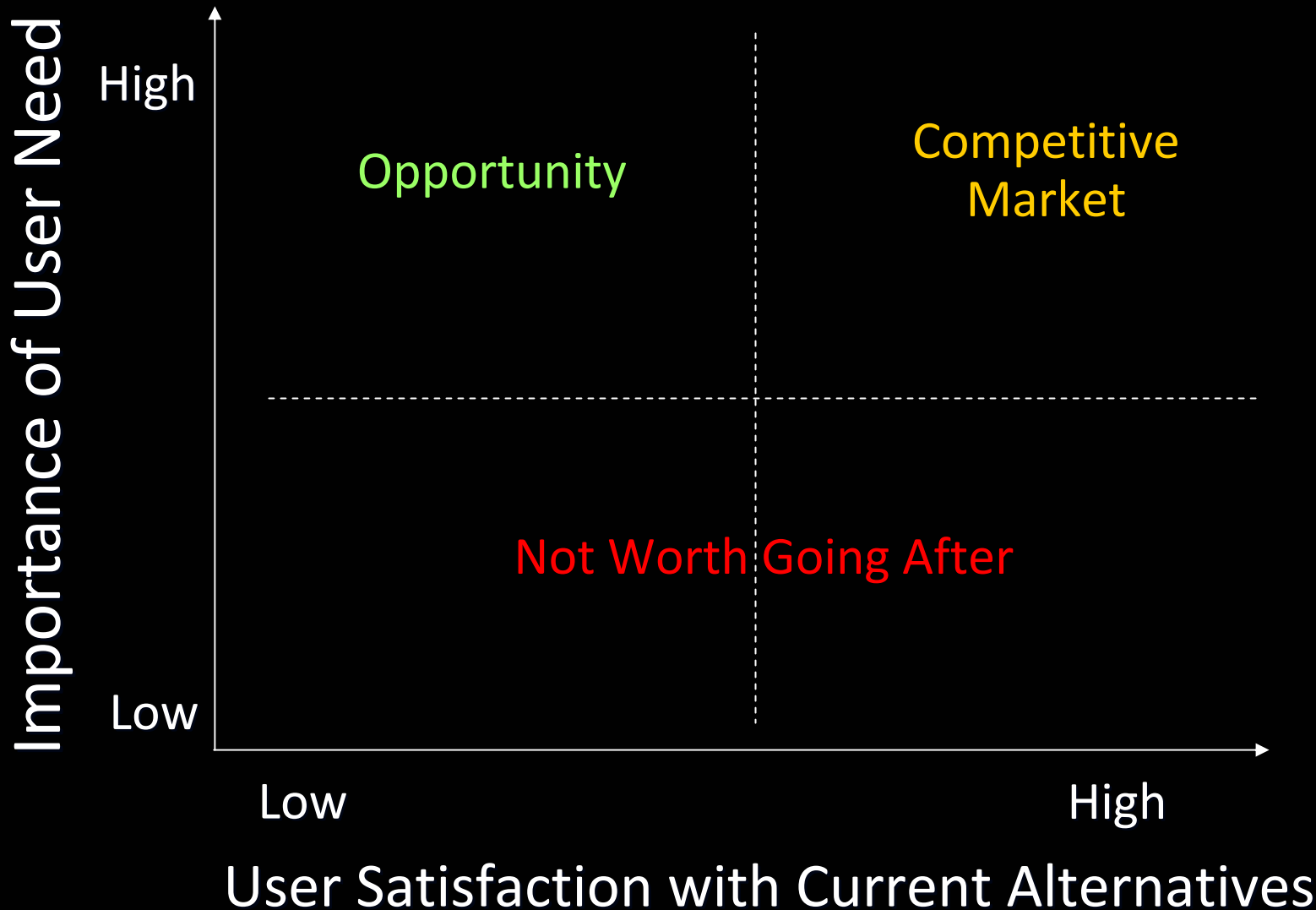
Tax Deduction
Finder

Prioritization Part 1:

Customer Value: Benefits & Features

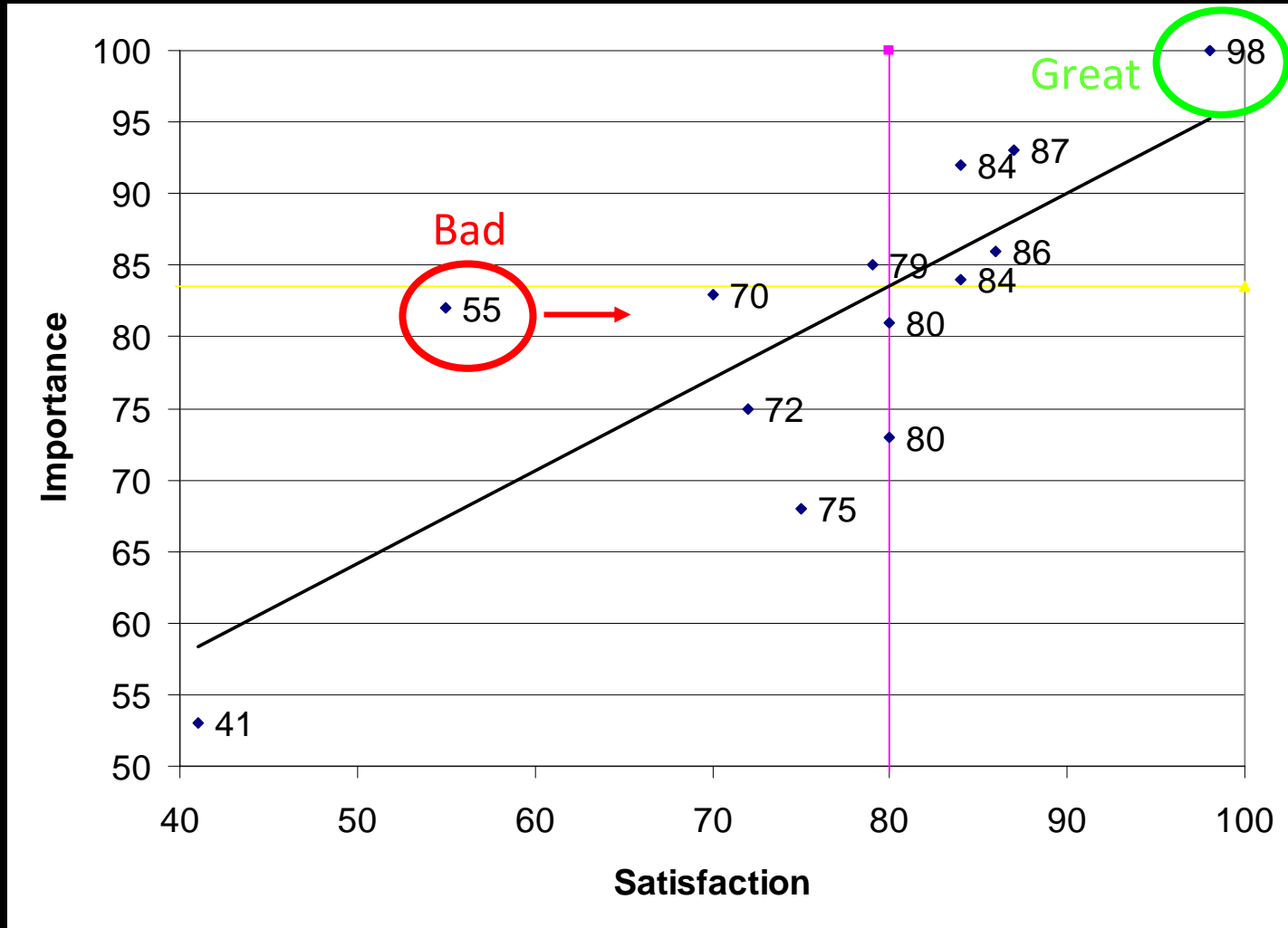
- How do you prioritize:
 - Which user benefits should you address?
 - Which product features to build (or improve)?
- Importance vs. Satisfaction
 - Importance of user need (problem space)
 - Satisfaction with how well a product meets the user's need (solution space)

High Importance + Low Satisfaction = Opportunity to Add Customer Value



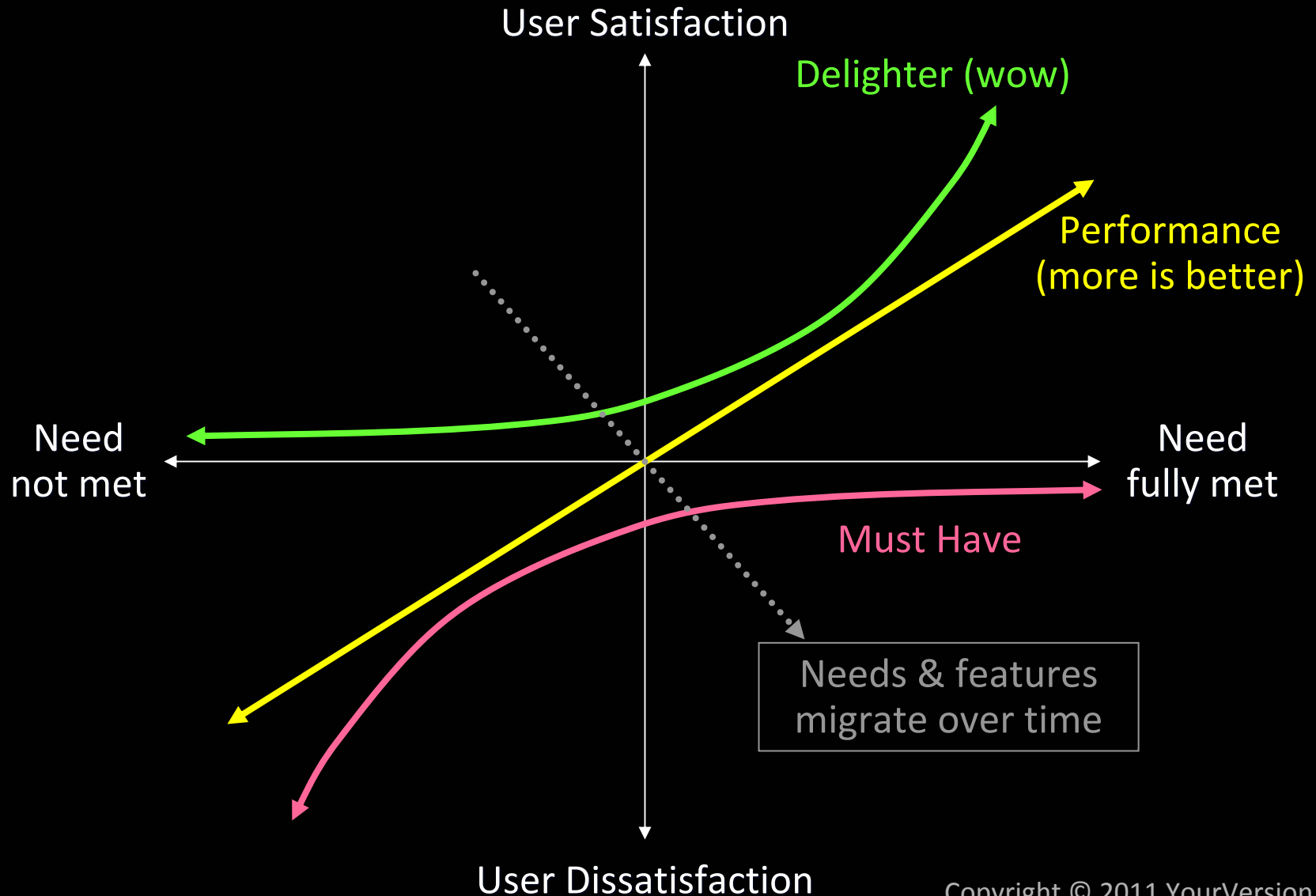
Importance vs. Satisfaction

Ask Users to Rate for Each Feature



Recommended reading: "What Customers Want" by Anthony Ulwick

Kano Model: User Needs & Satisfaction



What is Your Value Proposition?

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

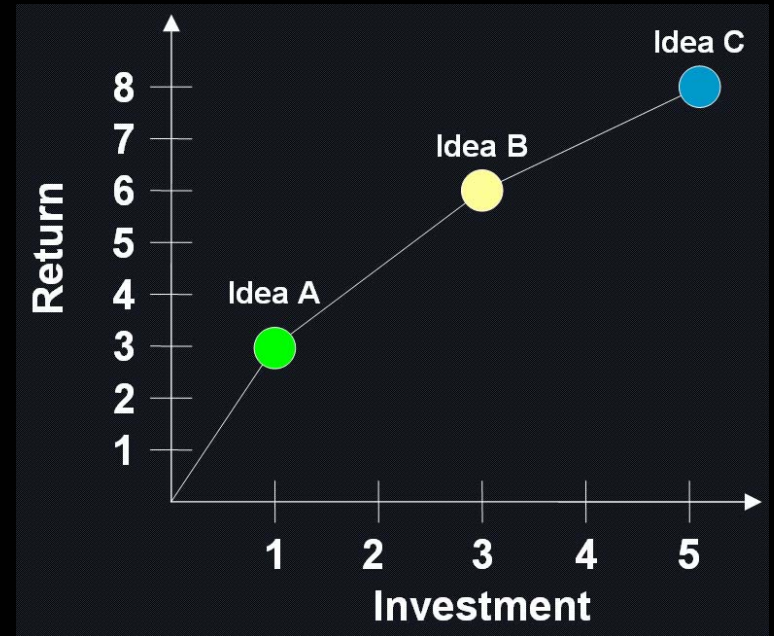
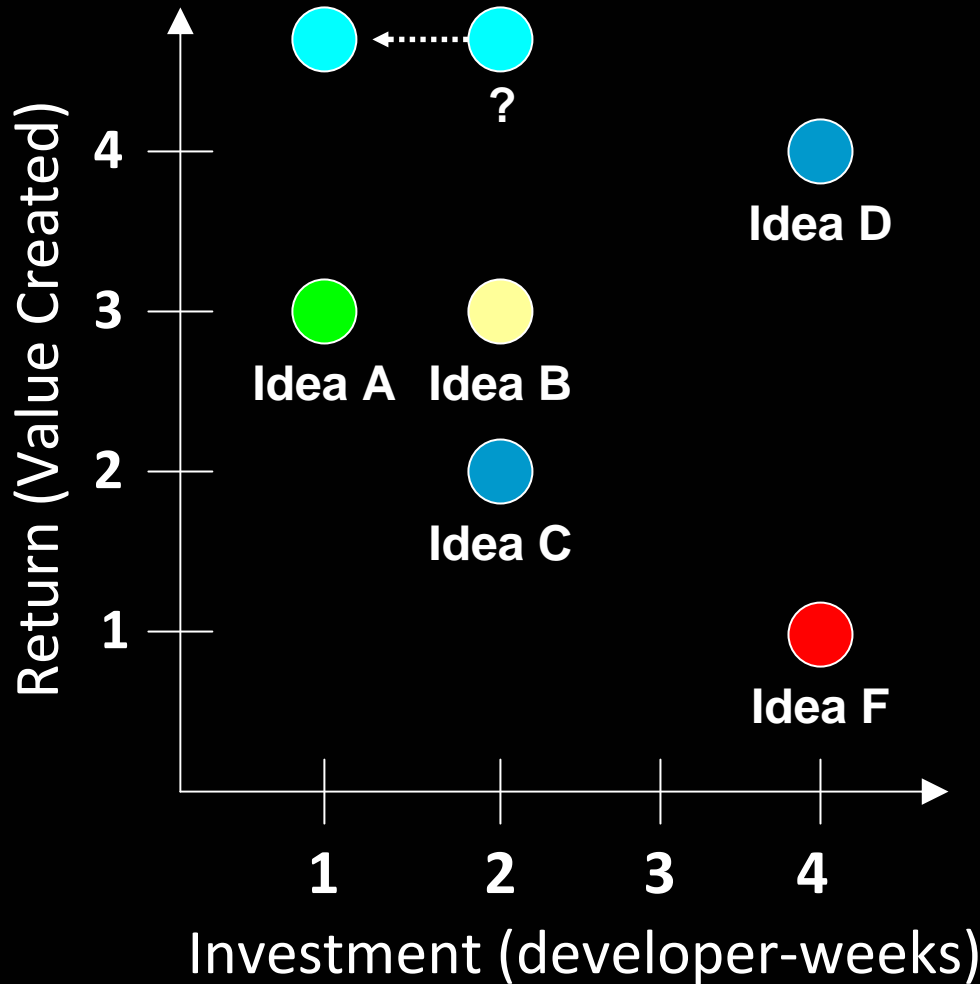
	Competitor A	Competitor B	You
Must Have Benefit 1	Y	Y	Y
Performance Benefit 1	High	Low	Med
Performance Benefit 2	Low	High	Low
Performance Benefit 3	Med	Med	High
Delighter Benefit 1	Y	-	-
Delighter Benefit 2	-	-	Y

Prioritization Part 2:

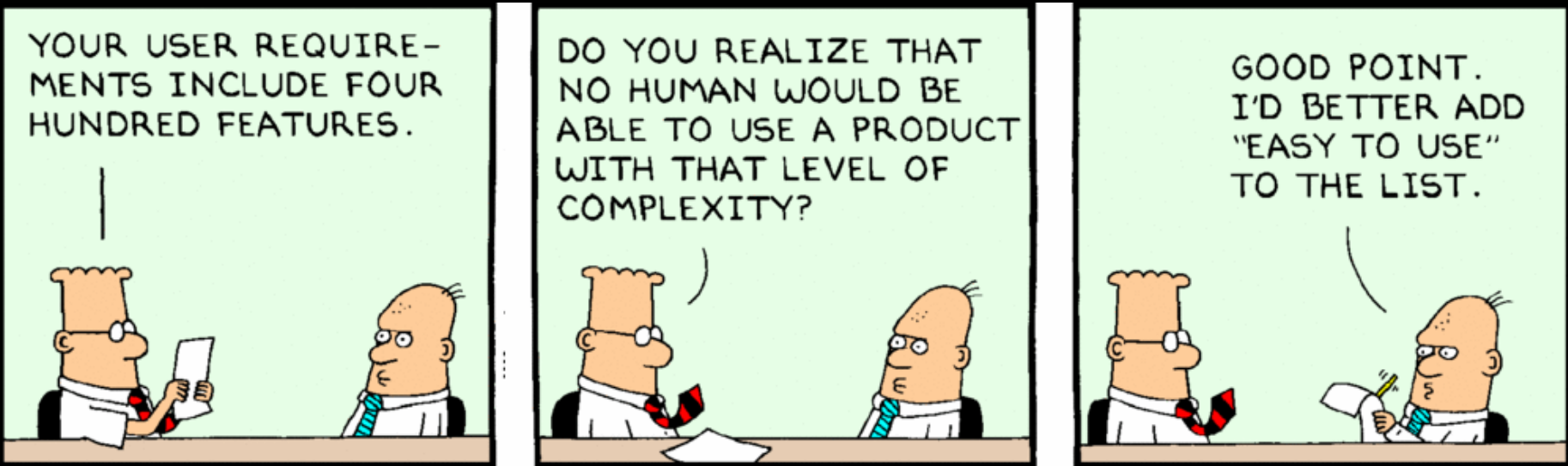
Customer Value & Engineering Effort

- 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 (10 Highs = FAIL)
- Be deliberate about scope & keep it small
 - Strategy = deciding what you're NOT doing
 - Break features down into smaller chunks
 - LAUNCH!
 - Smaller scope → faster iterations → higher cust value

Prioritizing Product Ideas by ROI



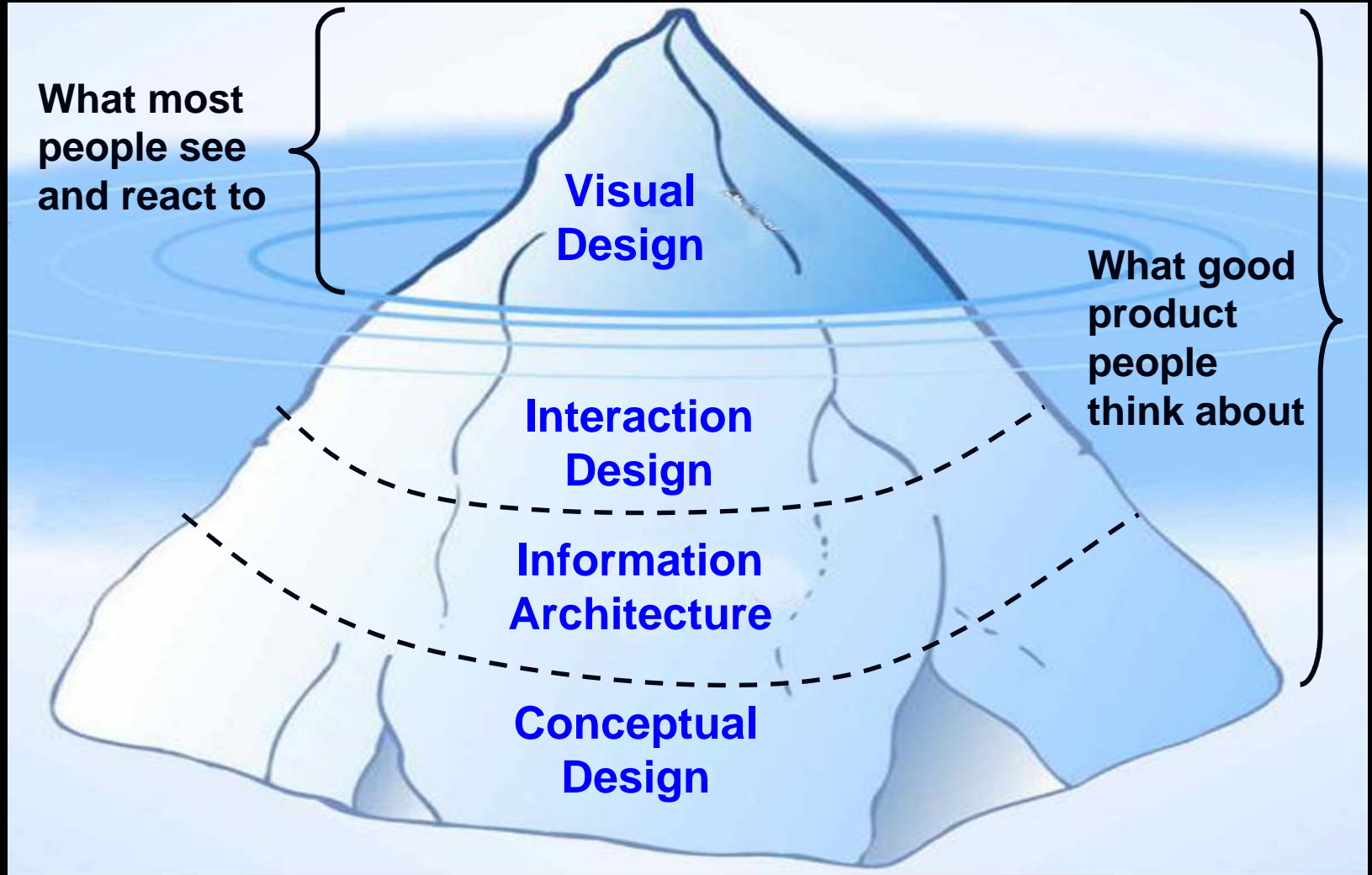
UI Design and Ease of Use



User Benefits vs. Ease of Use

- 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 & frustration
 - Makes user feel empowered
- UI Design can be differentiator
- Olsen's Law: “The less user effort required, the higher the percentage of users who will do it”

The UI Design Iceberg



Recommended reading: Jesse James Garrett's
"Elements of User Experience" chart, free at www.jjg.net

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Elements of User Interface Design

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 Customers

I'LL NEED TO KNOW YOUR REQUIREMENTS BEFORE I START TO DESIGN THE SOFTWARE.

FIRST OF ALL, WHAT ARE YOU TRYING TO ACCOMPLISH?

I'M TRYING TO MAKE YOU DESIGN MY SOFTWARE.

I MEAN WHAT ARE YOU TRYING TO ACCOMPLISH WITH THE SOFTWARE?

I WON'T KNOW WHAT I CAN ACCOMPLISH UNTIL YOU TELL ME WHAT THE SOFTWARE CAN DO.

TRY TO GET THIS CONCEPT THROUGH YOUR THICK SKULL: THE SOFTWARE CAN DO WHATEVER I DESIGN IT TO DO!

CAN YOU DESIGN IT TO TELL YOU MY REQUIREMENTS?

Customer Feedback: Problem Space vs. Solution Space

- Customers CAN'T articulate problem space
- Customers CAN react to solution space
- But, customers can't give you solutions
- Customers aren't designers
 - Multiple use cases and priorities
 - Trade-offs and constraints
 - Don't have PM, design, and technical skills

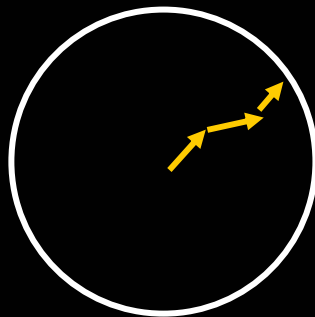
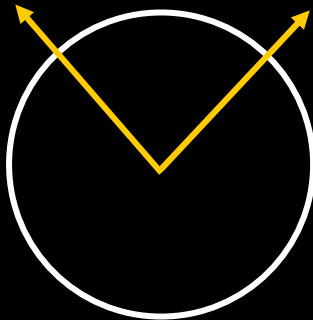
Iterating Your Product Vector Based on User Feedback in Solution Space

Problem Space

(your mental model)

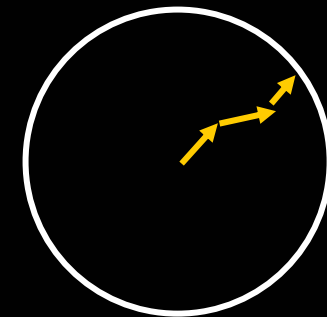
Help user
book travel

Help user
plan travel

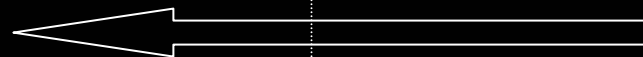
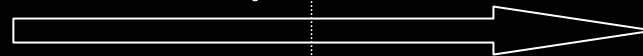


Solution Space

(what users can react to)



Mockups / Code



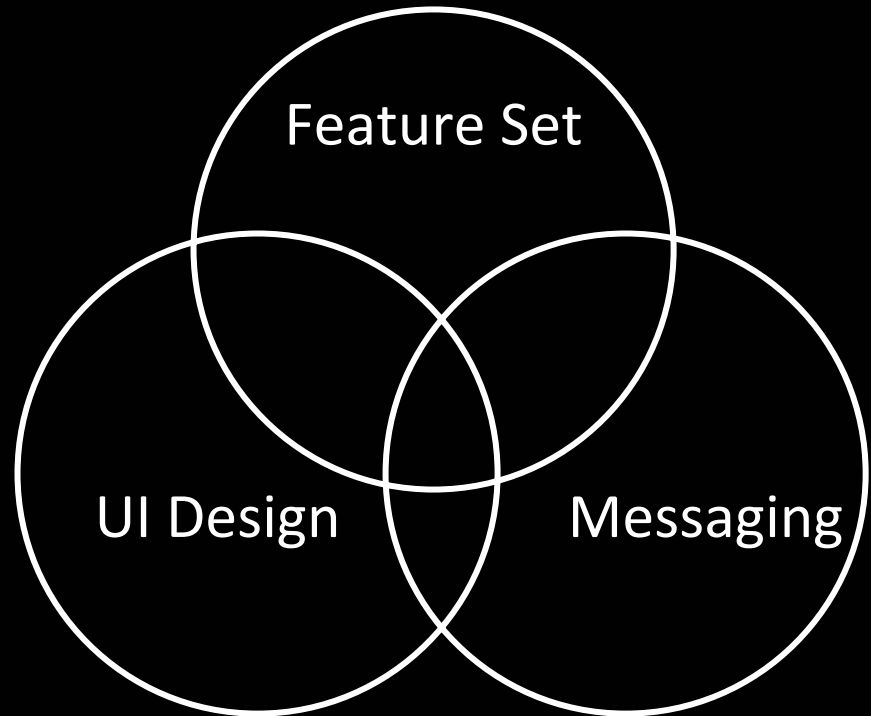
Customer Feedback

What Are You Getting Feedback & Learnings About?

Problem Space
(your mental model)



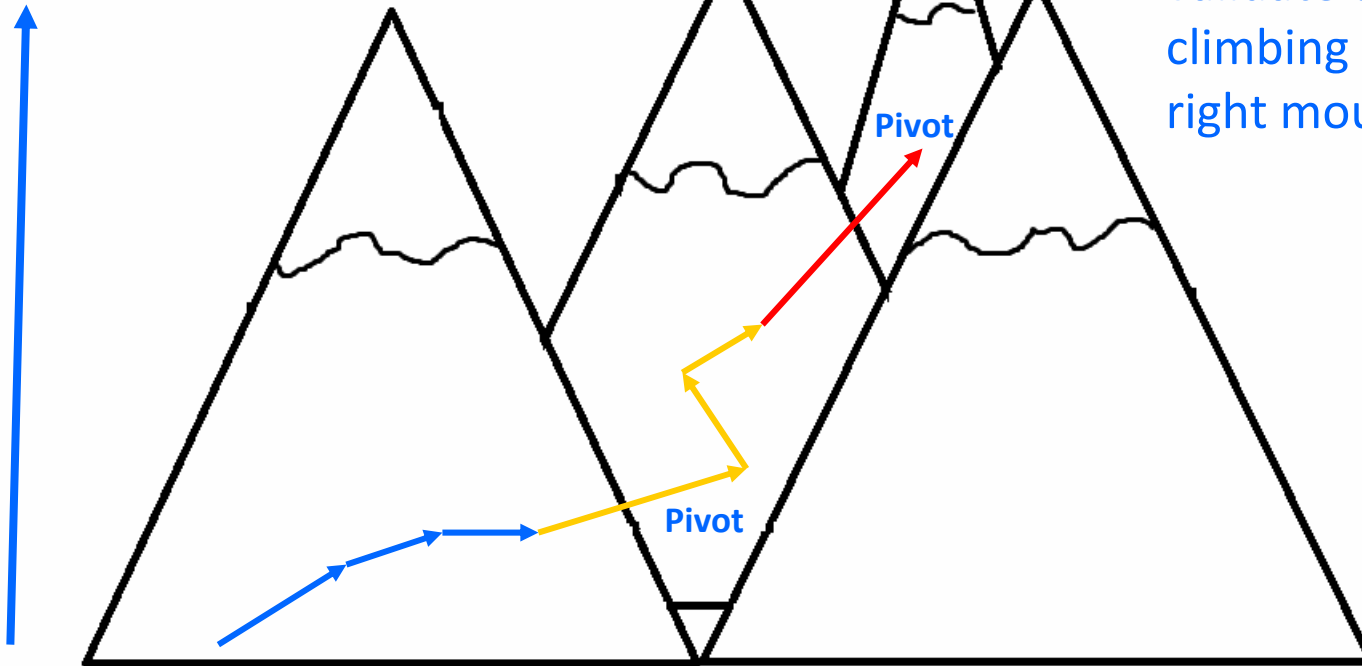
Solution Space
(what users can react to)



Persevere or Pivot?

Increasing
Product-Market
Fit

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



“Ramen” User Feedback for Startups

- 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

- 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

- 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 I 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)



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The Secret to Saving Hundreds of Dollars!

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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.

[Learn More](#)

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:

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For additional details, please review MarketingReport's complete [Privacy Policy](#) and [Terms of Use](#).

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

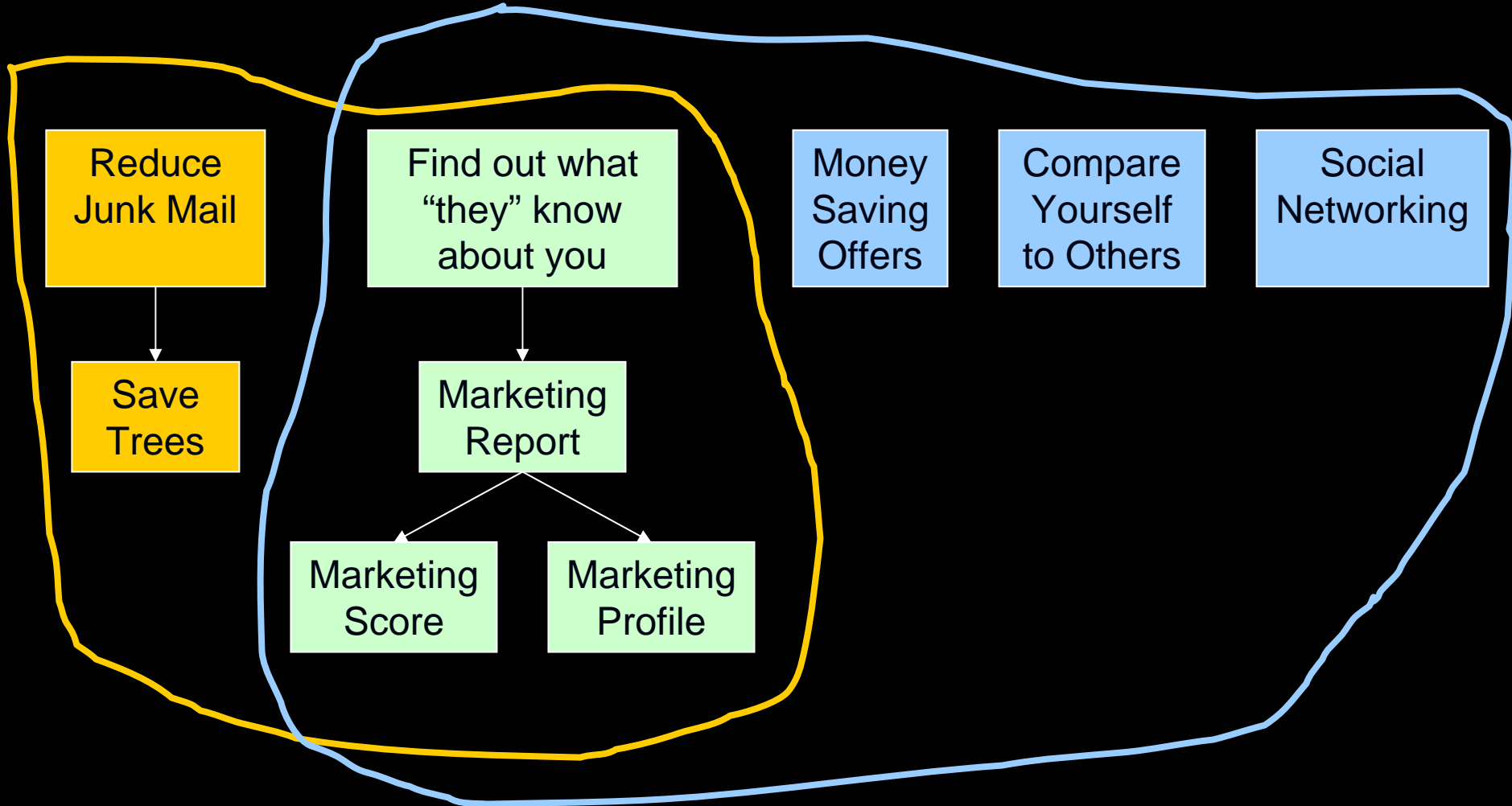
[Learn More](#)



Clustering Potential User Benefits to Create Product Concepts

“Shield” Concept

“Saver” Concept



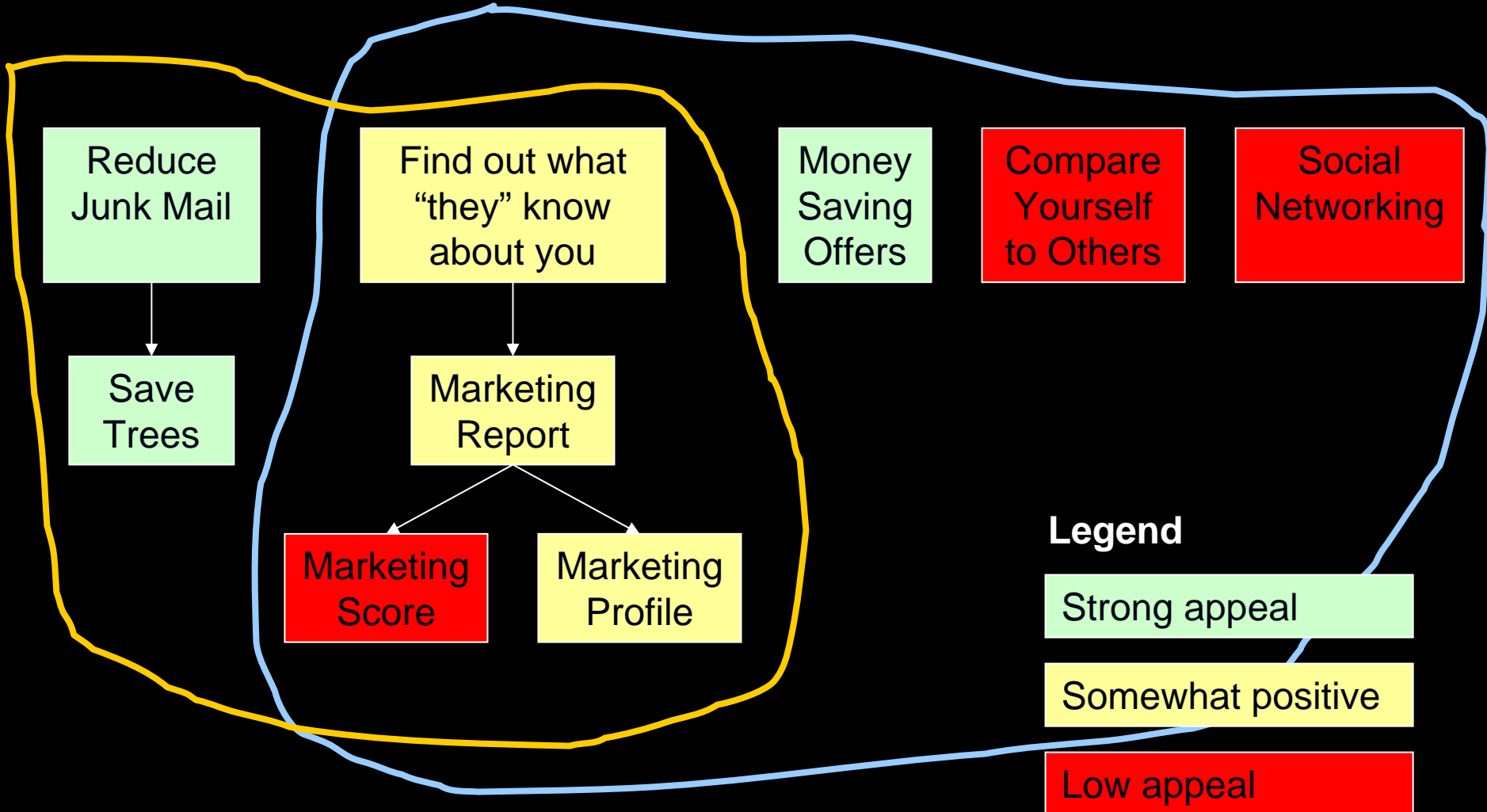
Product-Market Fit Case Study: Recruiting People

- 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 2nd 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

- 4 weeks from 1st meeting to validated product concept with zero coding
- Cost \$1,500 to talk to 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

How to Track Your Metrics

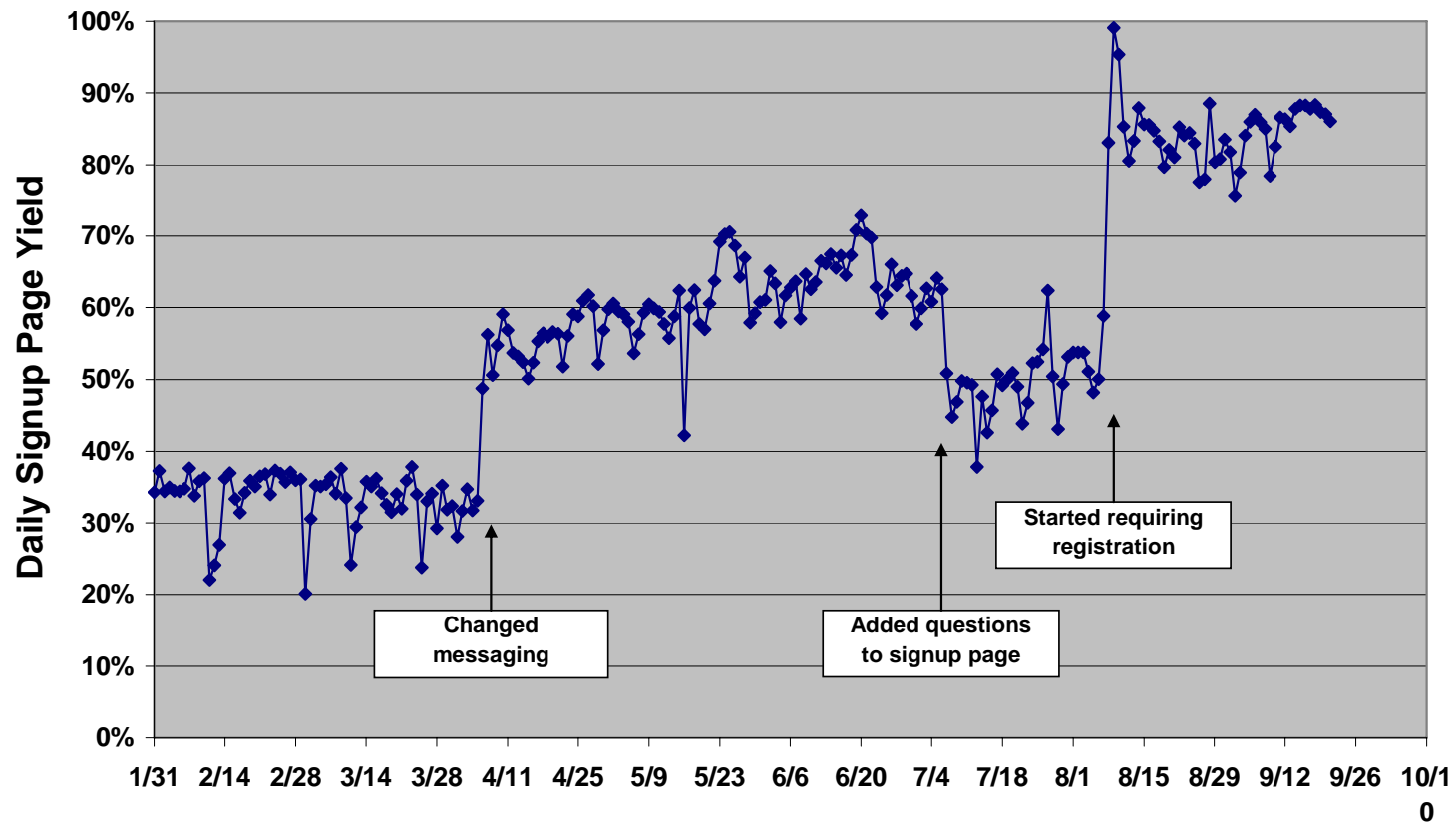
- Track each metric as daily time series

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

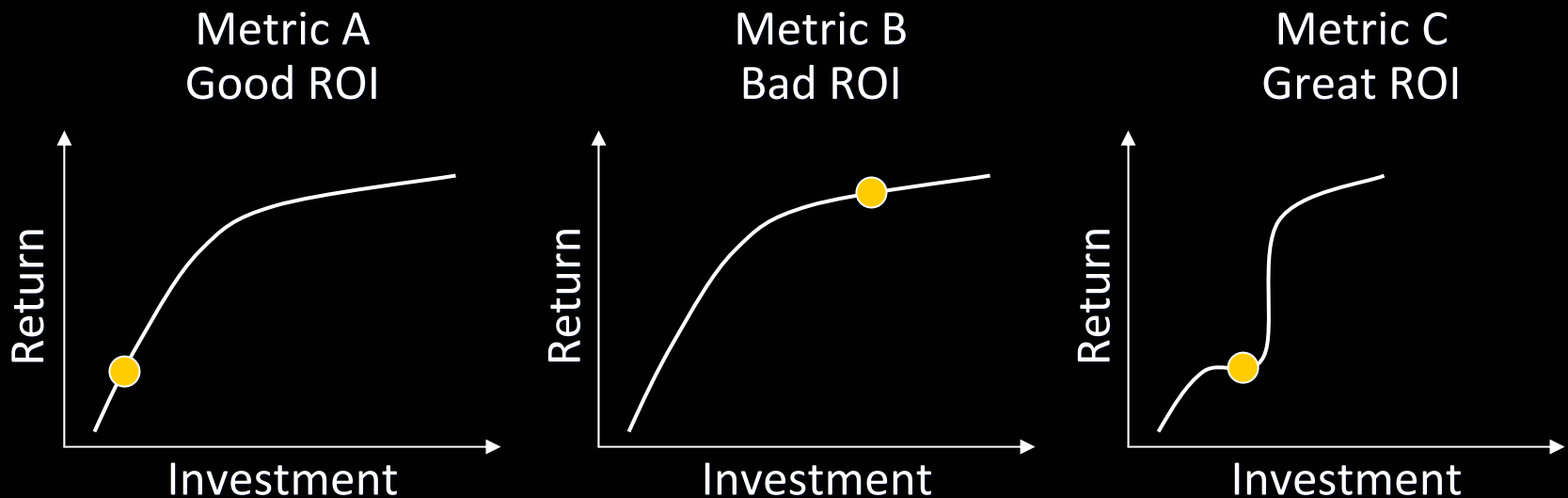
Sample Signup Page Yield Data

Daily Signup Page Yield vs. Time
New Registered Users divided by Unique Visitors to Signup Page



Identifying the “Critical Few” Metrics

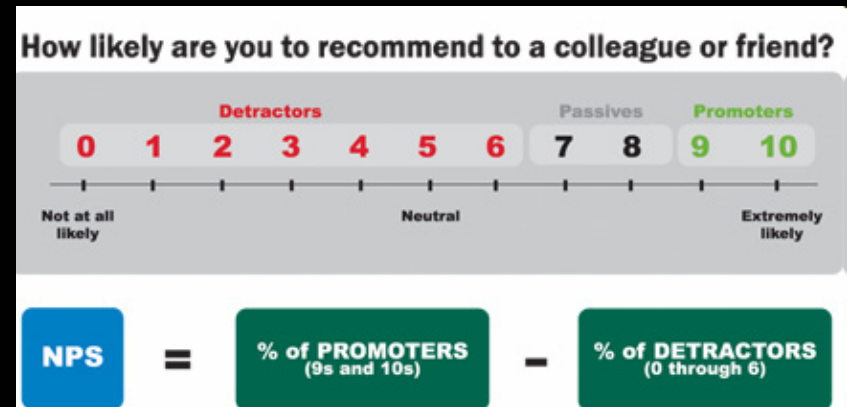
- What are the metrics for your business?
- Where is current value for each metric?
- How many resources to “move” each metric?
 - Developer-hours, time, money
- Which metrics have highest ROI opportunities?



Metrics to Validate Product-Market Fit

■ Survey results

- Importance & Satisfaction
- Net Promoter Score



■ Survey.io

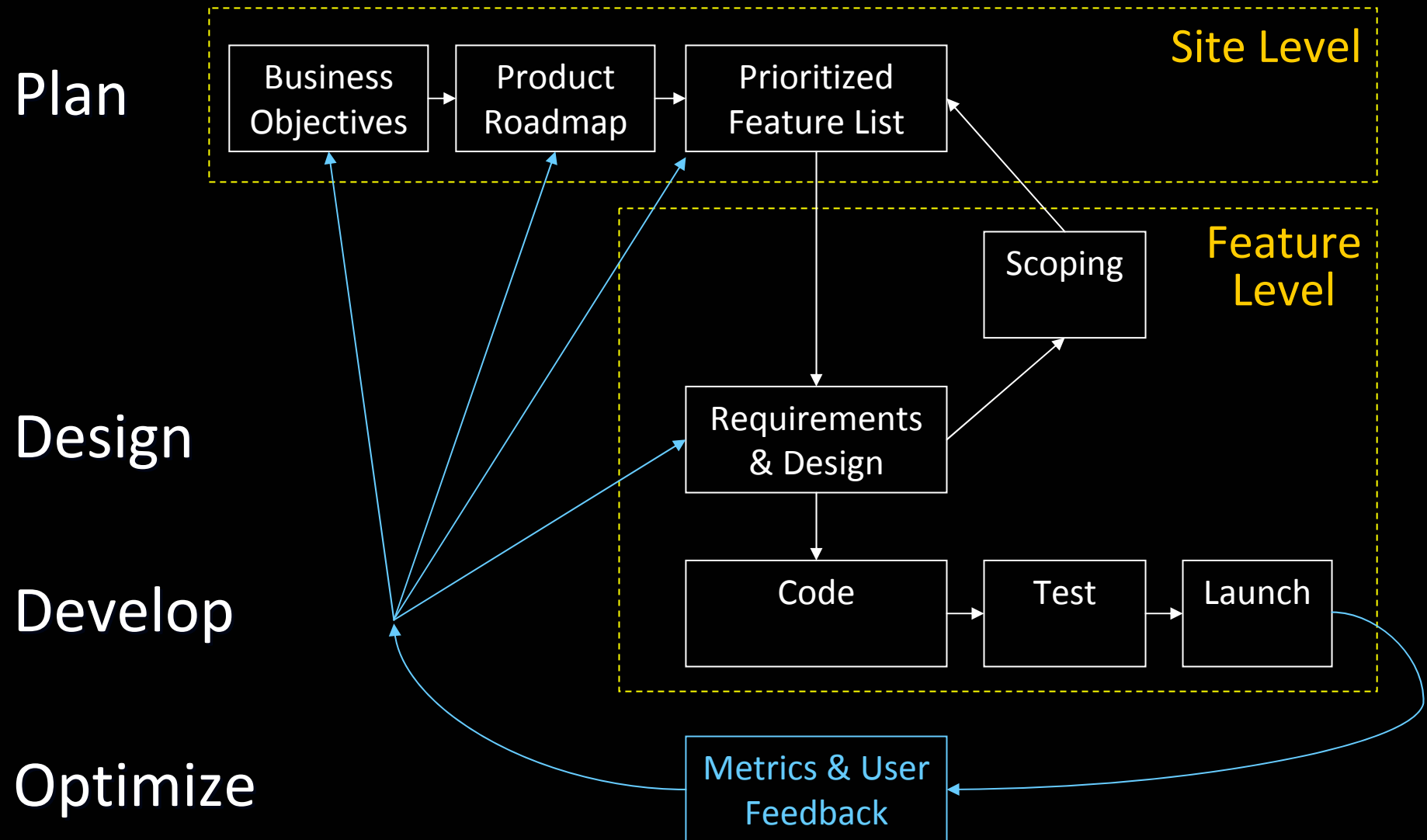
- “How would you feel if you could no longer use Product X?”
 - Very disappointed, Somewhat disappointed, Not disappointed

■ User behavior

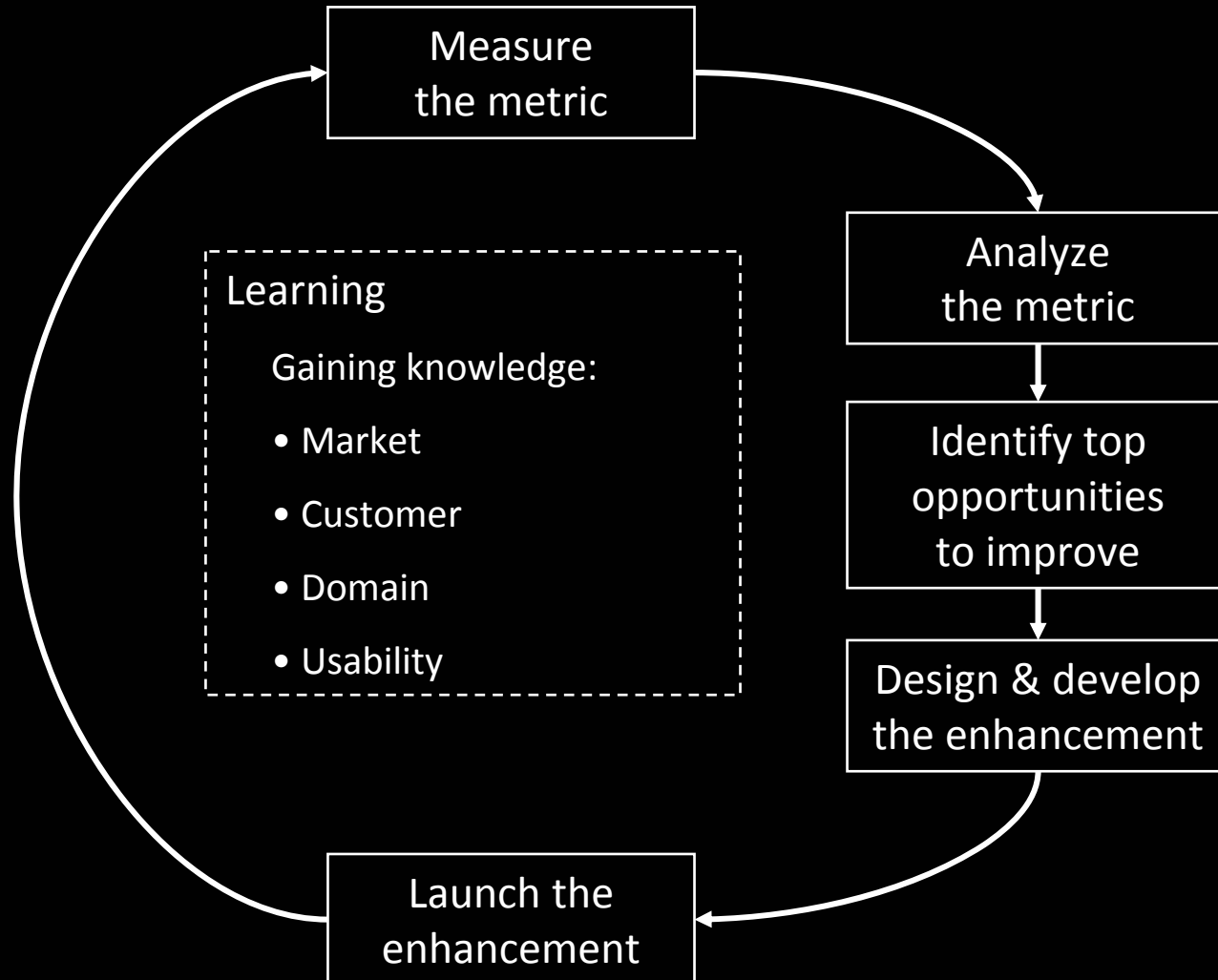
- Prospects sign up (high conversion rate)
- They keep using it (high retention rate)
- They use it often (high frequency of use)

Continuous Improvement

Adding Metrics and Optimization to your Product Process



Optimization through Iteration: Continuous Improvement



Web 2.0 Product Hero Cheat Sheet

- 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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