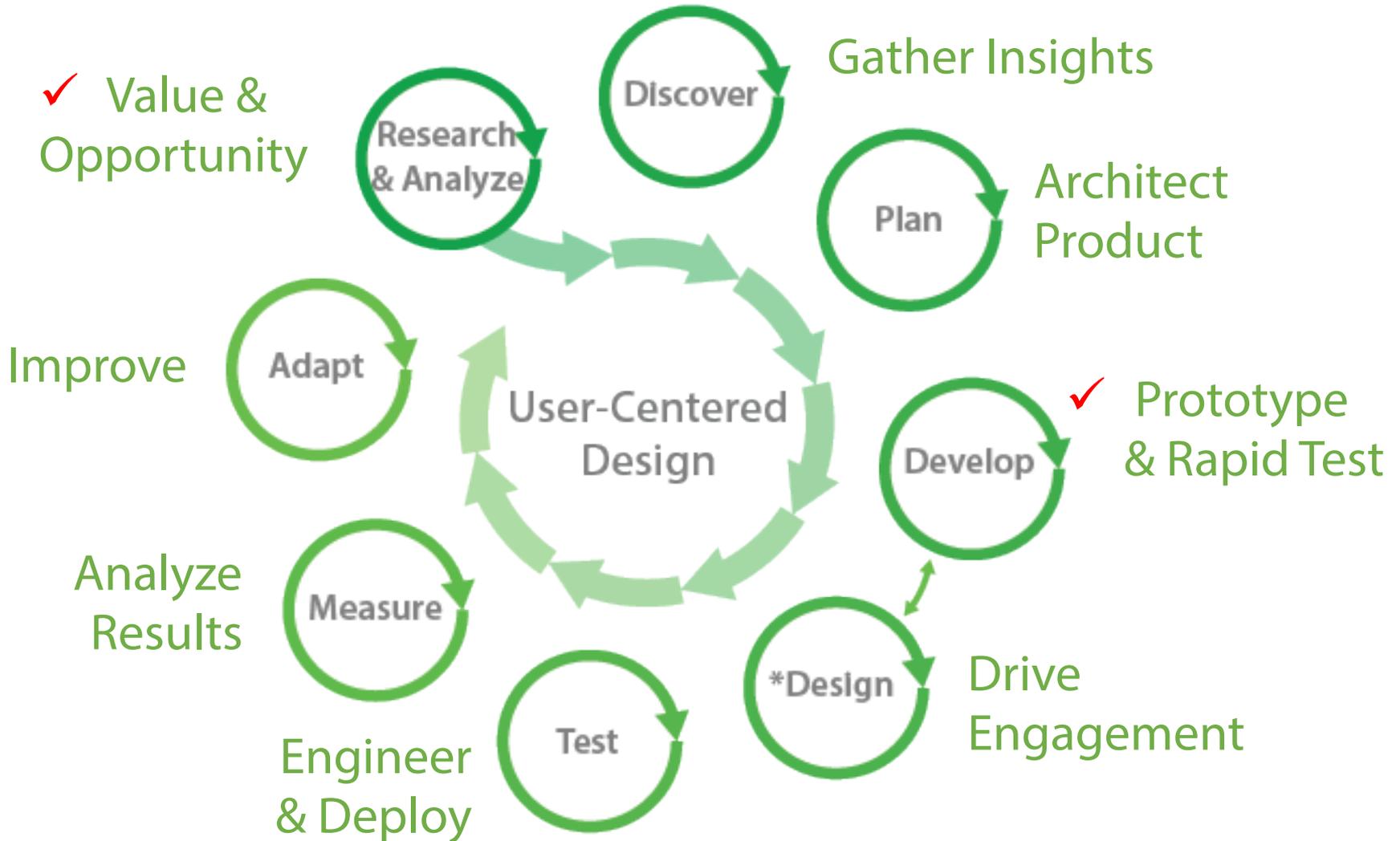


# User Centric Design

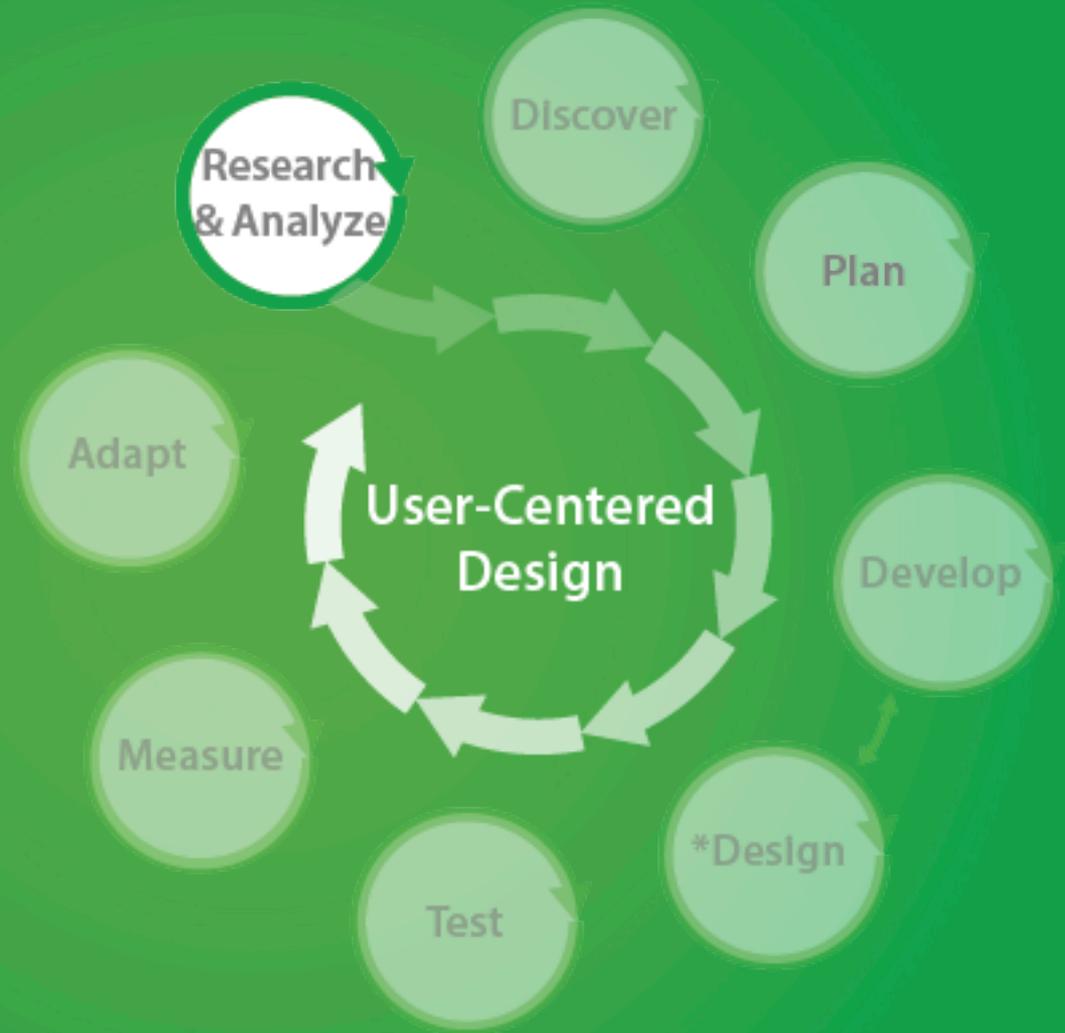
On Steroids...



# User Centric Design



## Research & Analyze



# Market Research & Analysis

## SWOT/ Competitor Analysis

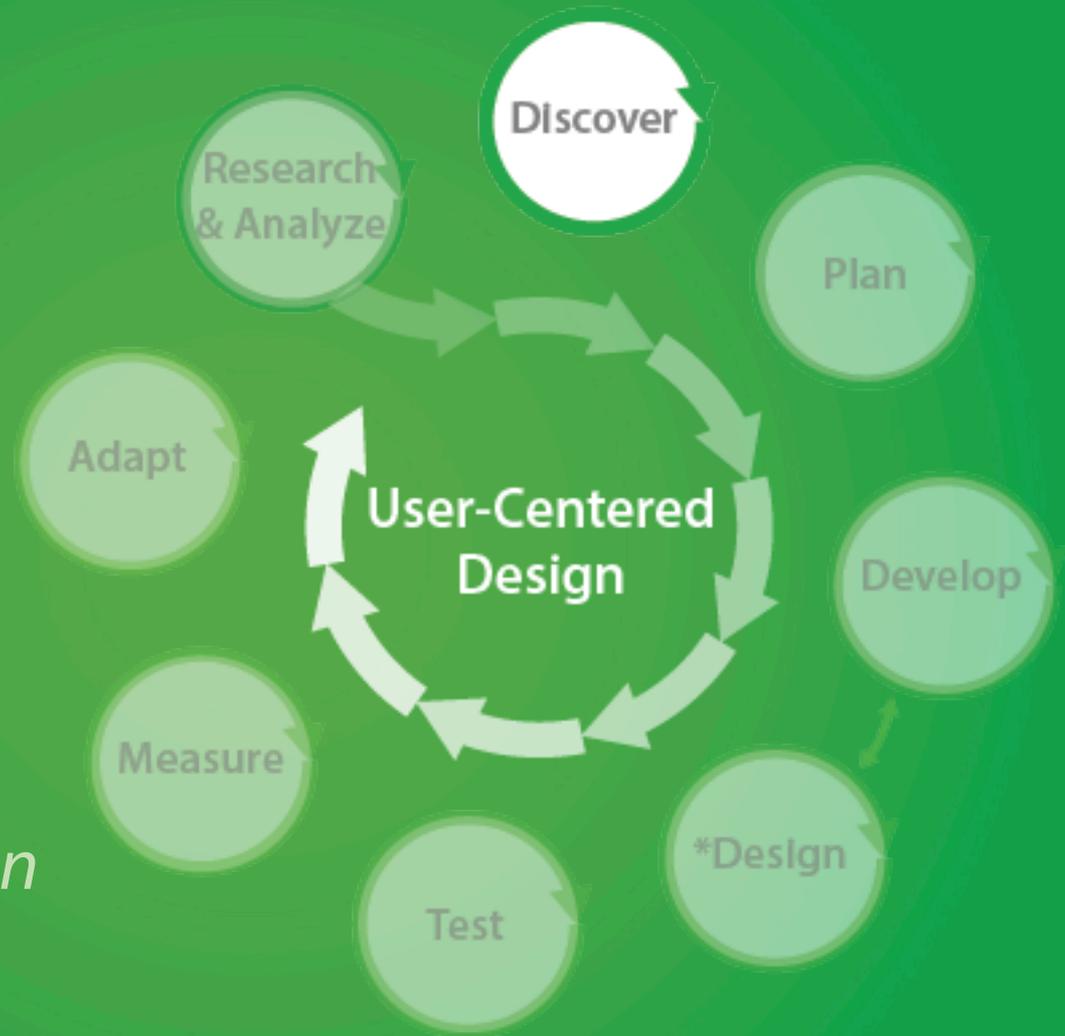
- Are there gaps to fill
- Are our customers needs being met

## Which market drivers support user-needs?

- Disruptive technology
- Does our product meet our user's needs?
- Who are our direct competitors and what are they doing?
- Tailor unique selling proposition

## Discover

- *User Personas*
- *Buyer Personas*
- *Task Analysis*
  - *Task Flow*
  - *Task Grid*
- *Optimize with Knowledge Design*



# User Discovery

## User Personas

- Define segments
- Define demographics
- Values and beliefs
- Get under their skin
- Define how they perceive value
- Give them a face and name
- Share personas
- Refine personas

# User Discovery

## Office 365 Enterprise Personas



### Transforming

- Customers with propensity to increase/decrease employee count regularly
- Require agile scalability and flexibility
- E.g. acquisitions, layoffs, temporary seasonal workers
- Business Value Deck: [Office 365 Transforming Enterprise Customer](#)



### Cost Saver

- Customer primarily looking to cut costs, value a focus on TCO
- Interested in moving from capex to opex
- Business Value Deck: [Office 365 Cost Saver Enterprise Customer](#)



### Google Compete

- Customer in active discussions with Google
- Greater focus on collaboration and messaging workloads
- Business Value Deck: [Office 365 Google Compete Enterprise Customer](#)



### Task Worker

- Population of structured task workers who don't have dedicated PCs
- Prevalent in retail, hospitality, manufacturing and healthcare industries
- e.g. Manufacturing Plant Floor worker, Nurse, Barista
- Business Value Deck: [Office 365 Task Worker Enterprise Customer](#)



### Dated Environment

- Customers on older versions (N-2+) of Exchange, SharePoint and Office who don't have new version rights
- Want to adopt new business productivity capabilities and stay current
- e.g. Customer deployed on Exchange 2003 without Software Assurance
- Business Value Deck: [Office 365 Dated Environment Enterprise Customer](#)

Presentation relevant to all: [Office 365 Enterprise Core Business Value Deck](#)  
Main Resource for Deeper Assessment: [Customer Decision Framework](#)

# User Discovery

## Marcus

Marcus is a 35-year-old software engineer who lives in Cape Town, although he'd ideally like to be somewhere else (he spent a couple of working for a bank in Hong Kong and misses it a lot). He's worked around telecoms and finance for the past decade, but finds his current job pretty boring and dreams of starting his own internet company.

He drives to work each morning and spends most of his day glued to a PC—mostly coding or fixing bugs behind the scenes at the company where he works. But there's plenty of time spent reading forums and keeping up with exciting new stuff on the web—he loves sites like Hacker News, where he feels like the rest of the audience get him.

He's not really interested in social media, but likes to mess around online in his spare time: in the evenings, after his two-year-old daughter goes to bed, he tends to watch TV with his wife while playing on his laptop.

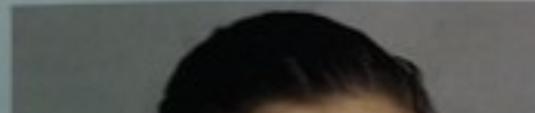
He wants to get an iPad but can't really justify it: he's secretly hoping his wife will buy him one for his birthday.

Photo by Andy Clement



## Shannon

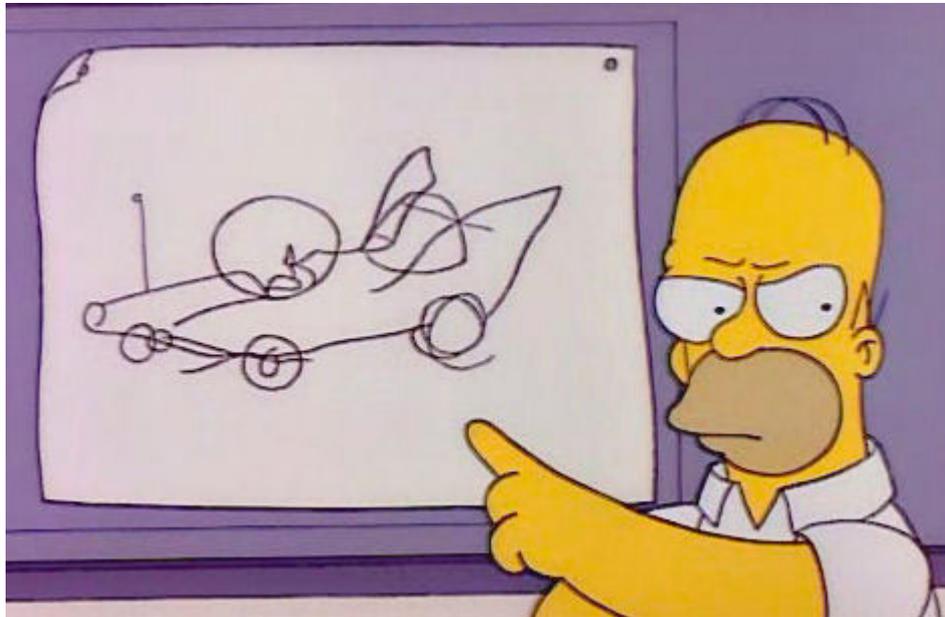
Shannon is a graphic designer in her early 30s, working for a small agency in New York. She prides herself on knowing a lot about the world around her—she spent a year traveling around Asia after



# User Discovery

## User Personas ARE NOT

- A list of customer likes and dislikes
- A focus group for users to dictate features



# Discovery > User Personas

## Creating User Personas

- Interview/ users and stakeholders
- Survey using quantifiable methods
- Review market research re: user behavior

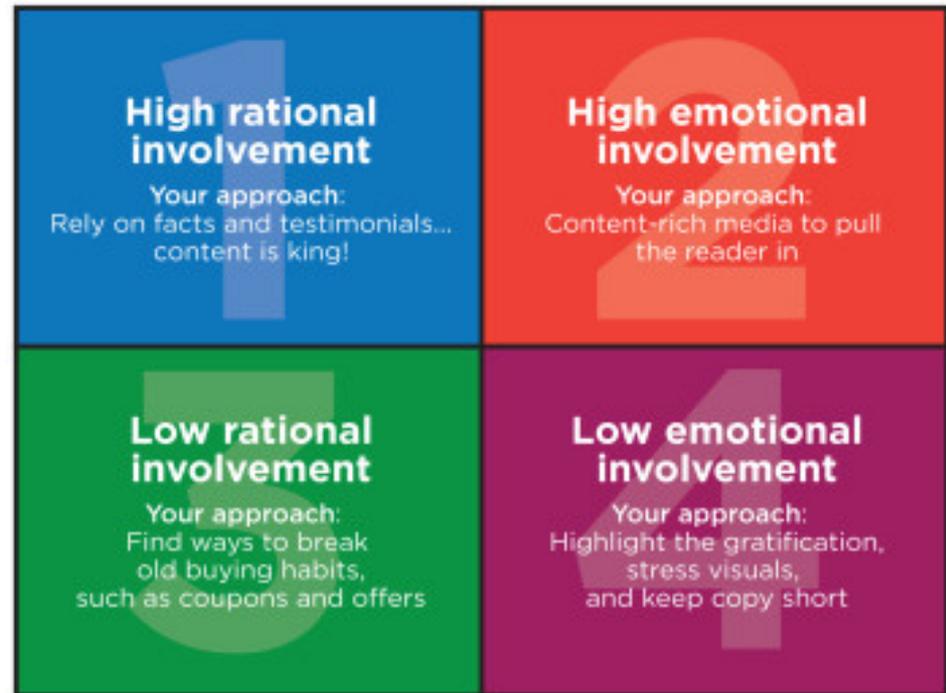
## What do personas do?

- Guide content development
- Focus analysis activities like “\*Task Analysis”
- Help serve user segments better rather than all user at once poorly

# Discovery > Buyer Personas

## Consumer Involvement Theory

- Guides messaging or CTA strategy across personas
- Establishes testable communication strategies
- Opportunity for enhanced consumer targeting



# Discovery > Task Analysis

## Work backwards from the problem

- Define the problem
- Define the intended outcome

## Remain solution agnostic

- Avoid simply performing time and motion studies on current implementation



# Discovery > Knowledge Design

Watch & observe buying/user behavior

**Trigger:** What gets users to start their task.

**Desired Outcome:** How they will know when the task is complete.

**Base Knowledge:** What will the users be expected to know when starting the task.

**Required Knowledge:** What they actually need to know to complete the task.

**Artifacts:** What tools or information do they use in the course of the task.

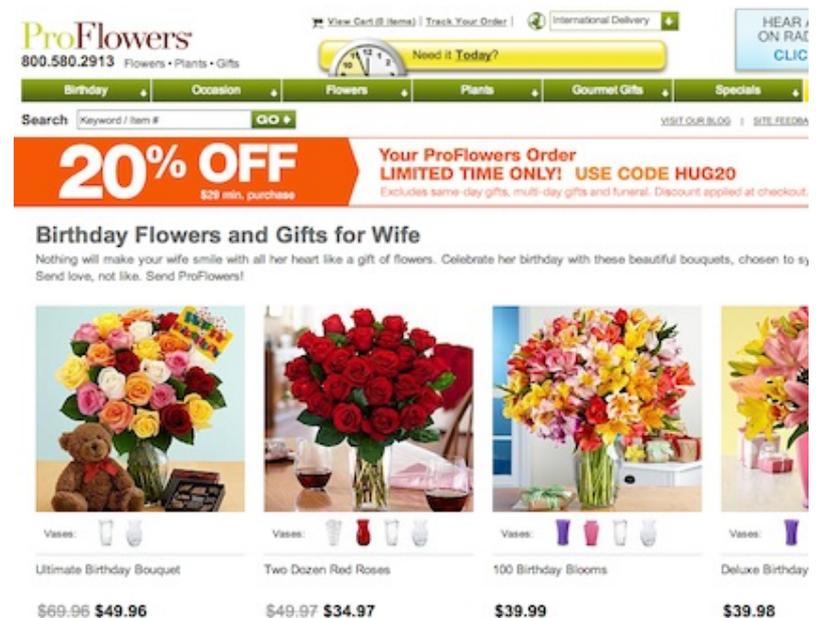
# Discovery > Task Analysis

## Use Cases (observed > predicted)

- Look at actual outcomes of the system that differ from the intended outcomes

## Proflowers/ Cart

- Assumed scenario
- Actual scenarios
  - Looks for 1 item
  - Realizes they need 2 items
  - Looking for several items
  - Just browsing
  - Wish-list for comparison shopping



The screenshot shows the ProFlowers website interface. At the top, there's a navigation bar with links for 'View Cart (0 Items)', 'Track Your Order', and 'International Delivery'. A search bar is present with the text 'Need it Today?'. Below the navigation bar, there's a prominent orange banner for a '20% OFF' discount, valid for orders over \$29. The main content area is titled 'Birthday Flowers and Gifts for Wife' and features a grid of four flower bouquet options:

Item Name	Original Price	Discounted Price
Ultimate Birthday Bouquet	\$69.96	\$49.96
Two Dozen Red Roses	\$49.97	\$34.97
100 Birthday Blooms	\$39.99	\$39.99
Deluxe Birthday	\$39.98	\$39.98

# Discovery > Task Analysis

Choose scenario that BEST fits your users

- Optimize for the most congruent design pattern
- Avoid the temptation of accommodating too many different scenarios



VS



# Discovery > Documentation

## Task Flow diagram [<<view example>>](#)

- Addresses tasks through the lens of a user
- Should be color coded by **required actions**, **steps the system can accomplish**, **required information** and **task questions/issues**

## Task grid [<<view example>>](#)

- Looks at sub-tasks and scenarios
- Define pain or decision points
- Lists prioritized functionality by sub-task

# Discovery > Optimize the Flow

## Optimize the task along that scenario

- Eliminate user steps
- Get the system to do more
- Turn “greens to yellows”
- Reduce oranges

*(Use Task Flow)*

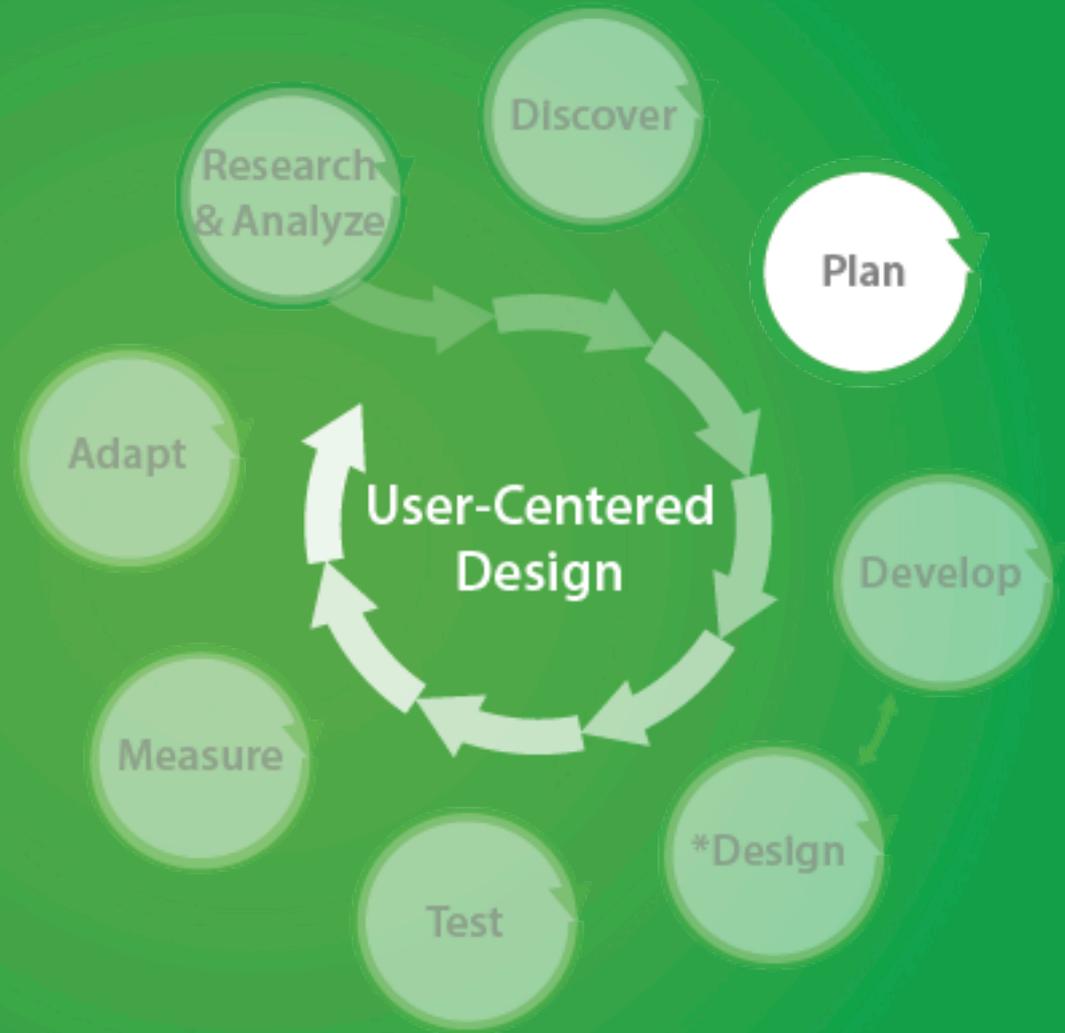
- required actions
- steps the system can do
- required information
- task questions/issues

## Use Knowledge Design

- How/where can we influence users' **required knowledge** with artifacts
- Proflowers example

## Plan

- *Goals & Assumptions*
- *Measureable Results*
- *Prioritized Functional Requirements*
- *Information Architecture*



# Plan

## Document product goals & assumptions

- Define goal(s) of product
- Prioritize user-discovery insights
- State UX hypothesis for achieving product goals

## Document Functional Requirements

- What the software **MUST** do to satisfy stakeholders
- Connect functionality to product goals
- Define metrics for success

# Plan > Information Architecture

## Sitemap

- Screen by screen map of interactions
- Includes decision and interactive points
- Directs paths to all content

## Card-sorting/ Folksonomy

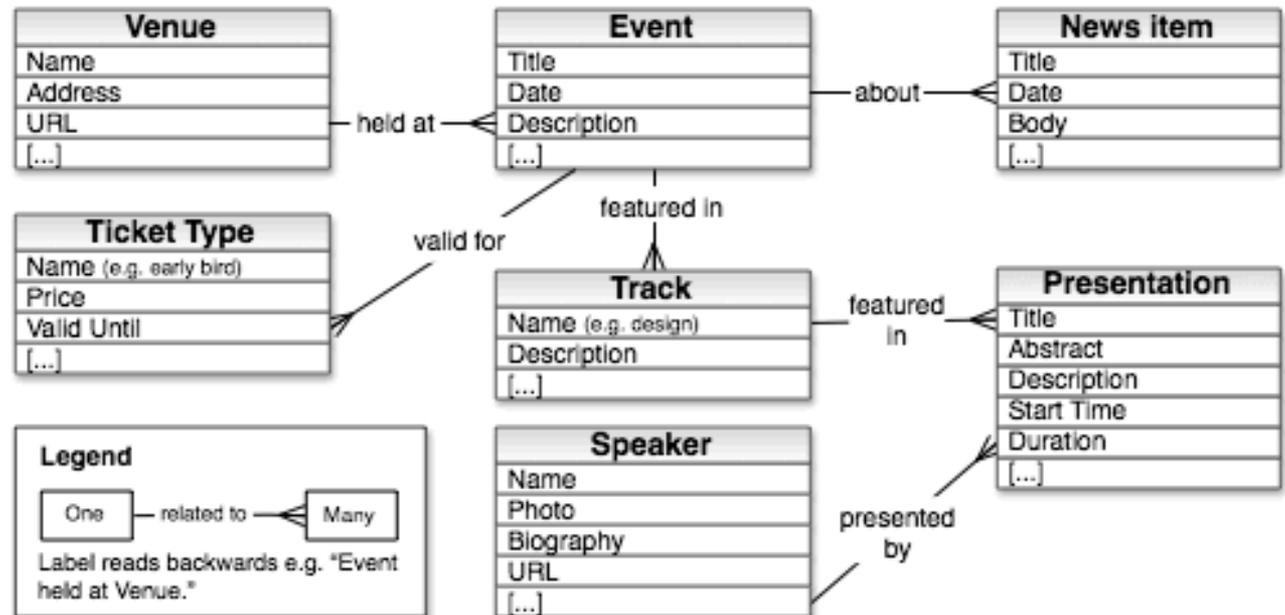
*(Most relevant for organizing heavy content)*

- Open card sorting
- Closed card sorting
- Reverse card sorting

# Plan > Information Architecture

## \*Content Modeling

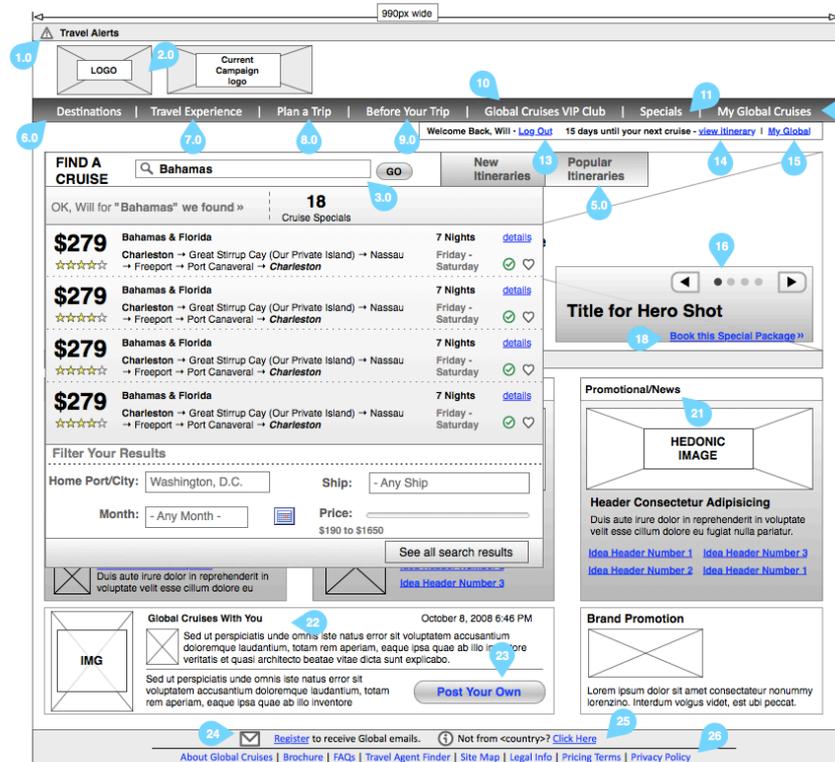
- Content Types (themes)
- Elements
- Names
- Types



# Plan > Information Architecture

## Wireframes

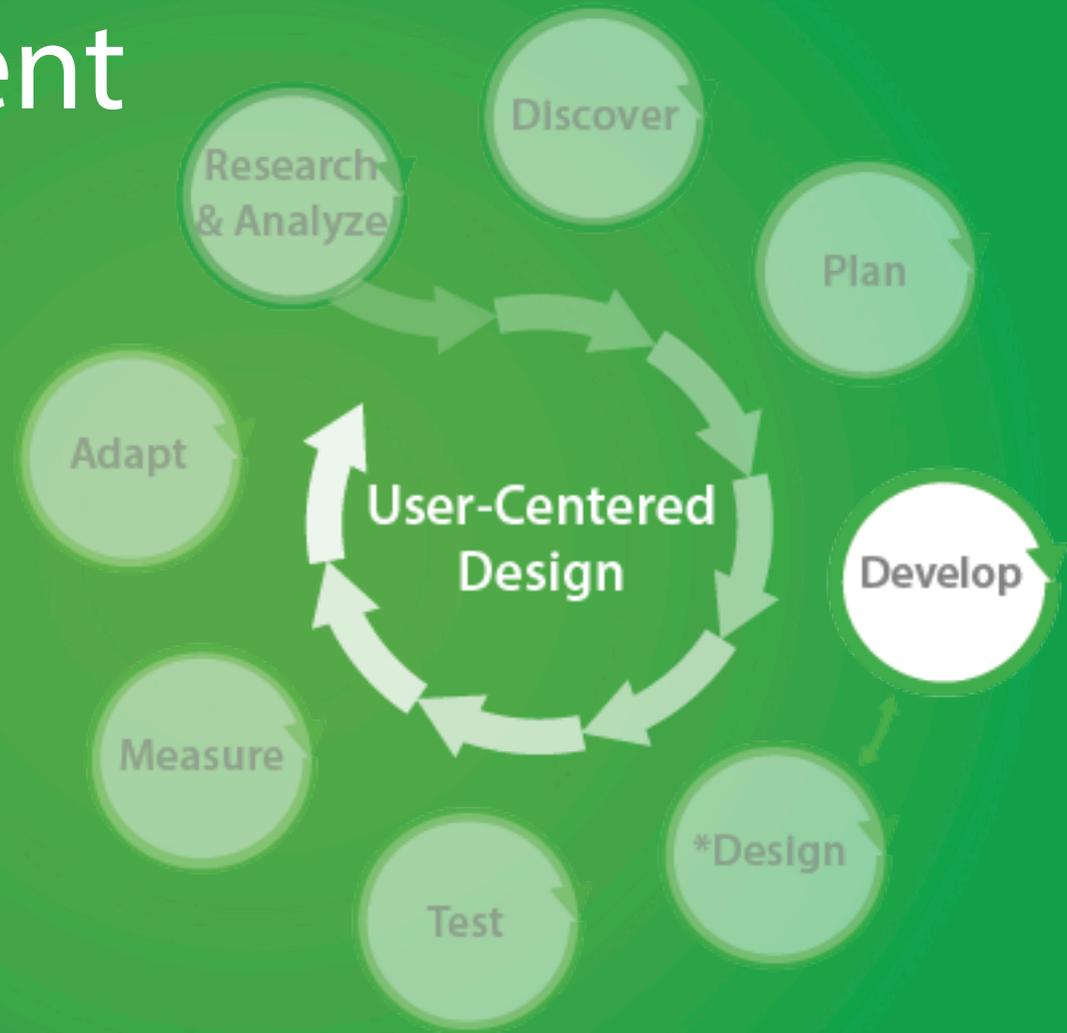
- Information hierarchy
- Screen by screen, low design
- Prototyping
  - Paper (rapid)
  - Clickable (guerilla)



Annotated Notes	
1.0	Travel Alerts: link through to 0.2.0.0
2.0	Branding/Logo links Home Page
3.0	Search with predictive suggestion defined user scenario 3.X
4.0	New Itineraries drop down with link: display itinerary w/link to section 4.x
5.0	Popular Itineraries - dropdown showing top 5 most popular itineraries
6.0	Destinations Link: goes to section X.0
7.0	Travel Experience Link: goes to section X.0
8.0	Plan a Trip Link: goes to section X.0
9.0	Before Your Trip Link: goes to section X.0
10	Global Cruises VIP Club Link: goes to section X.0
11	Specials Link: goes to section X.0
12	My Global Cruises Link: goes to section X.0
13	LogOut Link: logs user out of session
14	View Itinerary Link: Goes to My Global/View my Itineraries page.
15	My Global Link: Goes to personalized page
16	Carousel of specials/packages image
17	Starring You Moment Crowdsourcing link
18	Link to Book Specials tied to the Image in the large Hero shot.
19	Need Help Planning your Cruise
20/21	Promotional CTAs/Partner Promotions
22	Global Cruises with You Callout, with member profile
23	Post your own Starring Your Moments link to crowdsourcing page.
24	Sign up to receive emails
25	Change Country link
26	Global Footer Links

1 unit of time here can save up to ~20 units of time later

## \*Development



# Development

## Agile Process

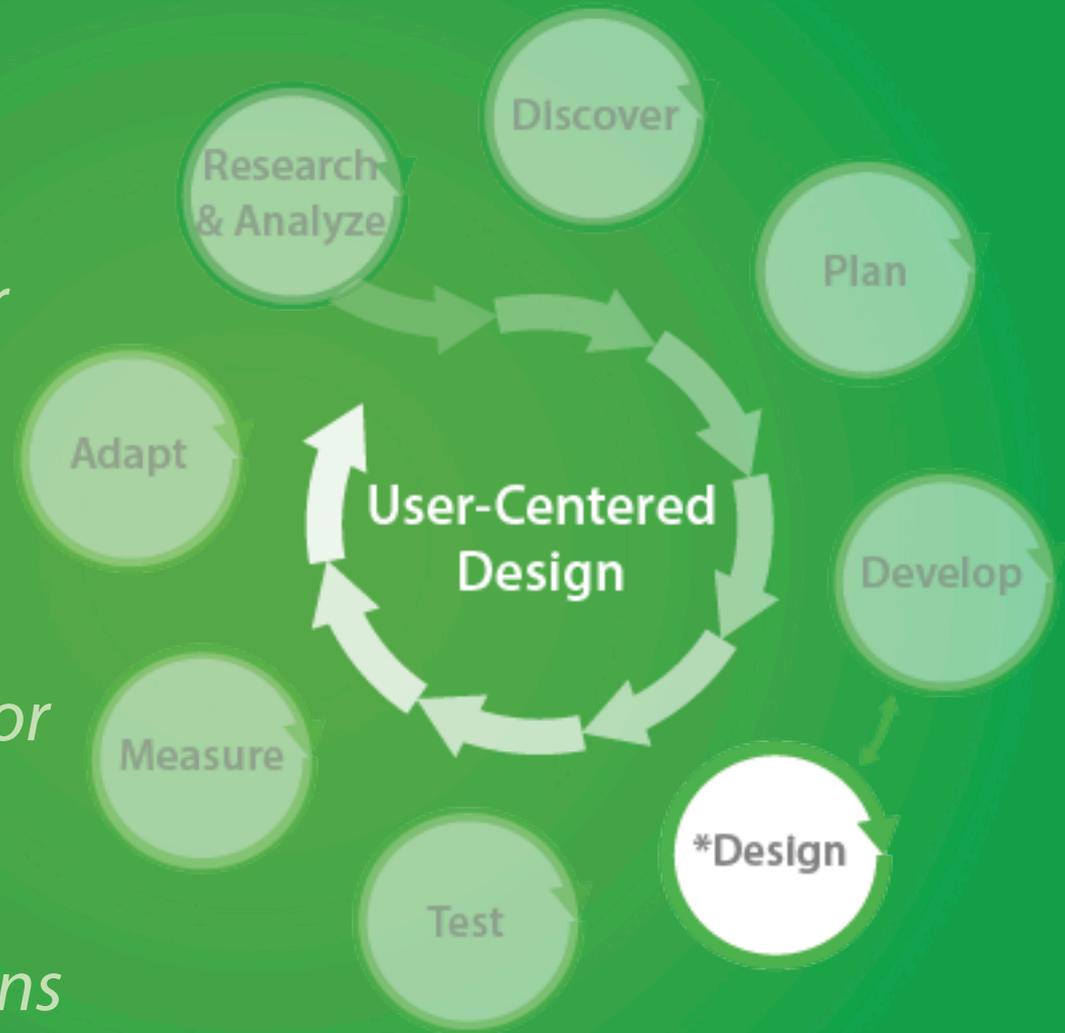
- None of this model should affect or dictate development (though it may help with planning)

## Rapid prototyping & User-testing

- Gather feedback early and often
- Prototype documented workflows and features
- Scenario test with user-groups
- Alpha test internally
- Beta test externally

## Design

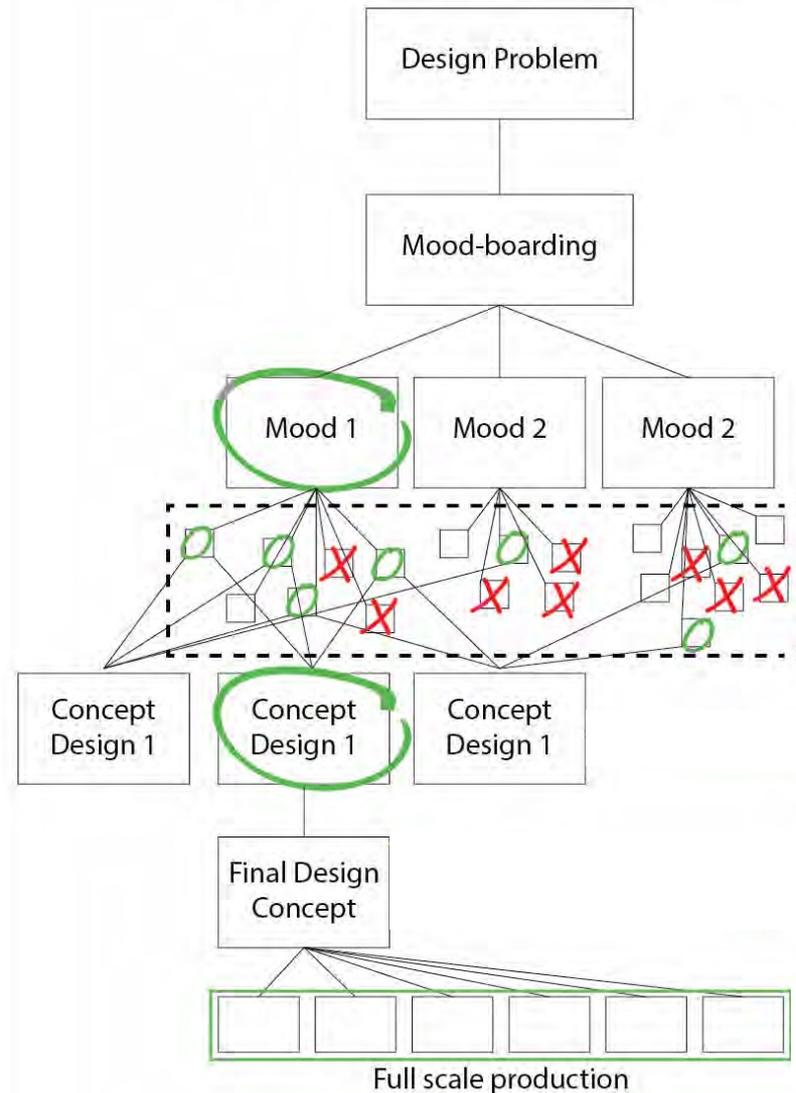
- *Visual challenge*
- *Visual competitor analysis*
- *Mood-boarding*
- *Concept Design*
- *Full-scale design or style guide*
- *Post production design annotations*



# Agency Design Process

## Incremental Design Process

- Prevents “I’ll know it when I see it”
- Minimizes “random creative decisions”
- Shows most amount of design spec with the lowest effort
- Visual charting



# Design > State Visual Challenge

## Design Problem

- What are the objectives you're looking to achieve

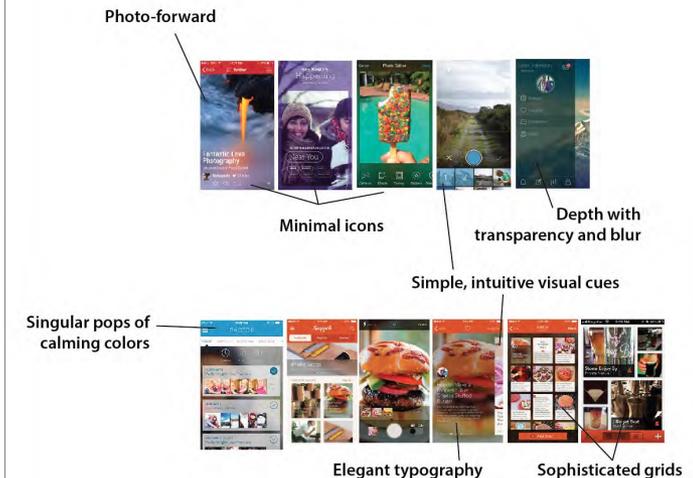
## Design Brief

- Target Audience
- Single most important thing to say
- Brand positioning adjectives
- Do's/ Don'ts

### The Design Problem:

- Intuitive clean design** Maintain minimal design aesthetic that doesn't overwhelm the user with choice, identify primary choices without distracting from photo content.
- Photo forward** Allowing the photo content to tell its own story while being visually intuitive for new users.
- Friendly vibe** Present an energetic and friendly tone without being too bubble-gummy and busy with visuals.
- Age friendly** Ensure the proper tone of sophistication in the design execution without isolating parties by age.
- Design principles to consider** Color, whitespace, balance, contrast, depth.

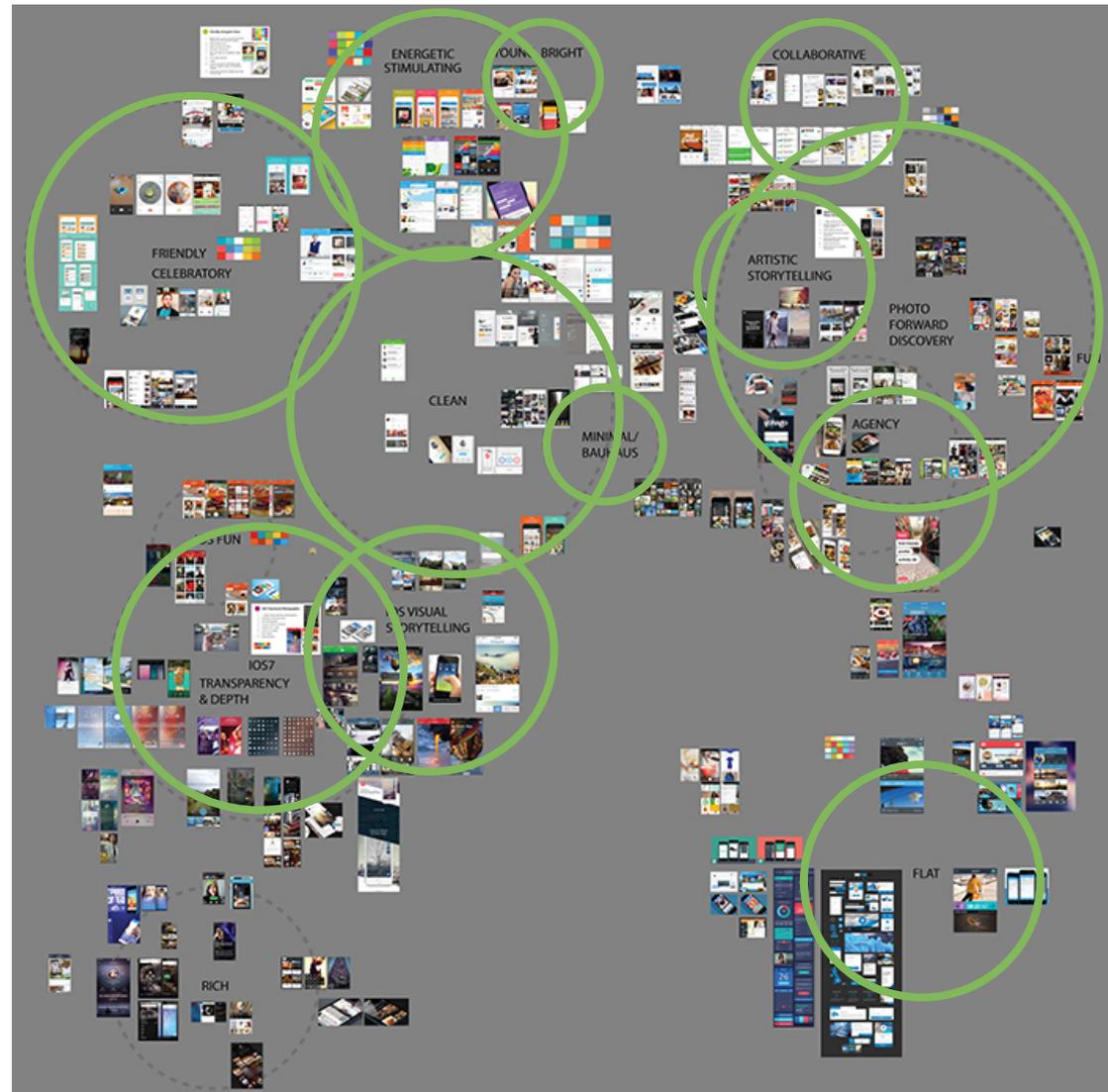
### Proposed Solution:



# Design > Mood-boarding

Gather visual insights and themes

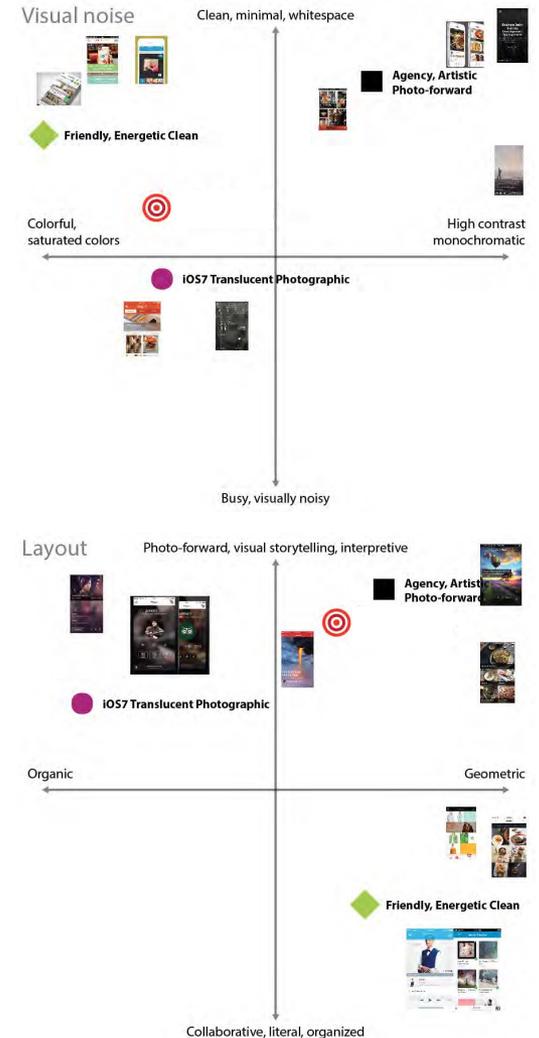
- Assess which themes perform better
- Assess which themes align most with product goals



# Design > Mood-charting

## Removing subjectivity

- Avoids “random creative decision making”
- Connects design with goals
- Creates design accountability
- Increases stakeholder engagement



# Design > Concept Design

## Mood: 70's Burgandy Vintage Texture

### Photos/Inspirations



### Screenshots



### Style Guide

#### Header



#### Sub Headers



#### List items



#### Voting Tray



#### Button states



## Mood: 60's Organic Smooth

### Photos/Inspirations



### Screenshots



### Style Guide

#### Header



#### Sub Headers



#### List items



#### Voting Tray



#### Button states



## Mood: Retro metal work /steampunk

### Photos/Inspirations



### Screenshots



### Style Guide

#### Header



#### Sub Headers



#### List items



#### Voting Tray



#### Button states



# Design > Final Designs

## Full production vs. Style Guide

- Can adapt workflow to meet agile development needs

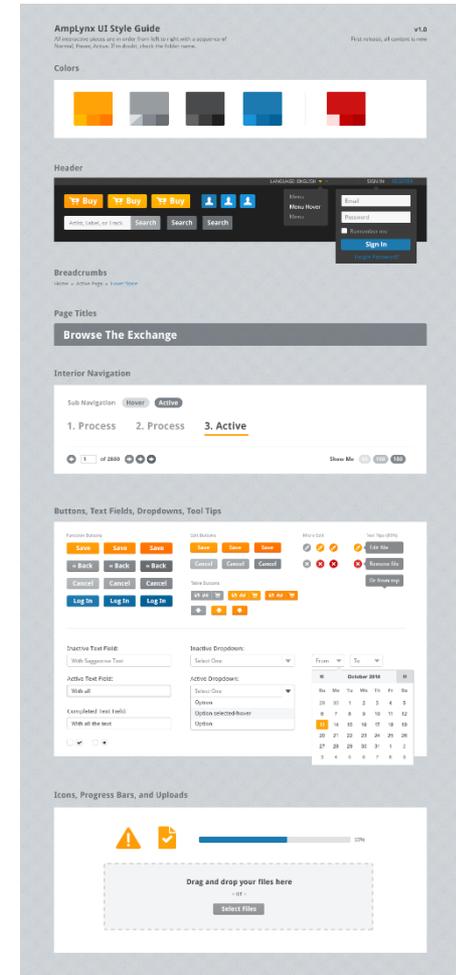
## Post production

- Documenting styles for development speeds implementation

QA

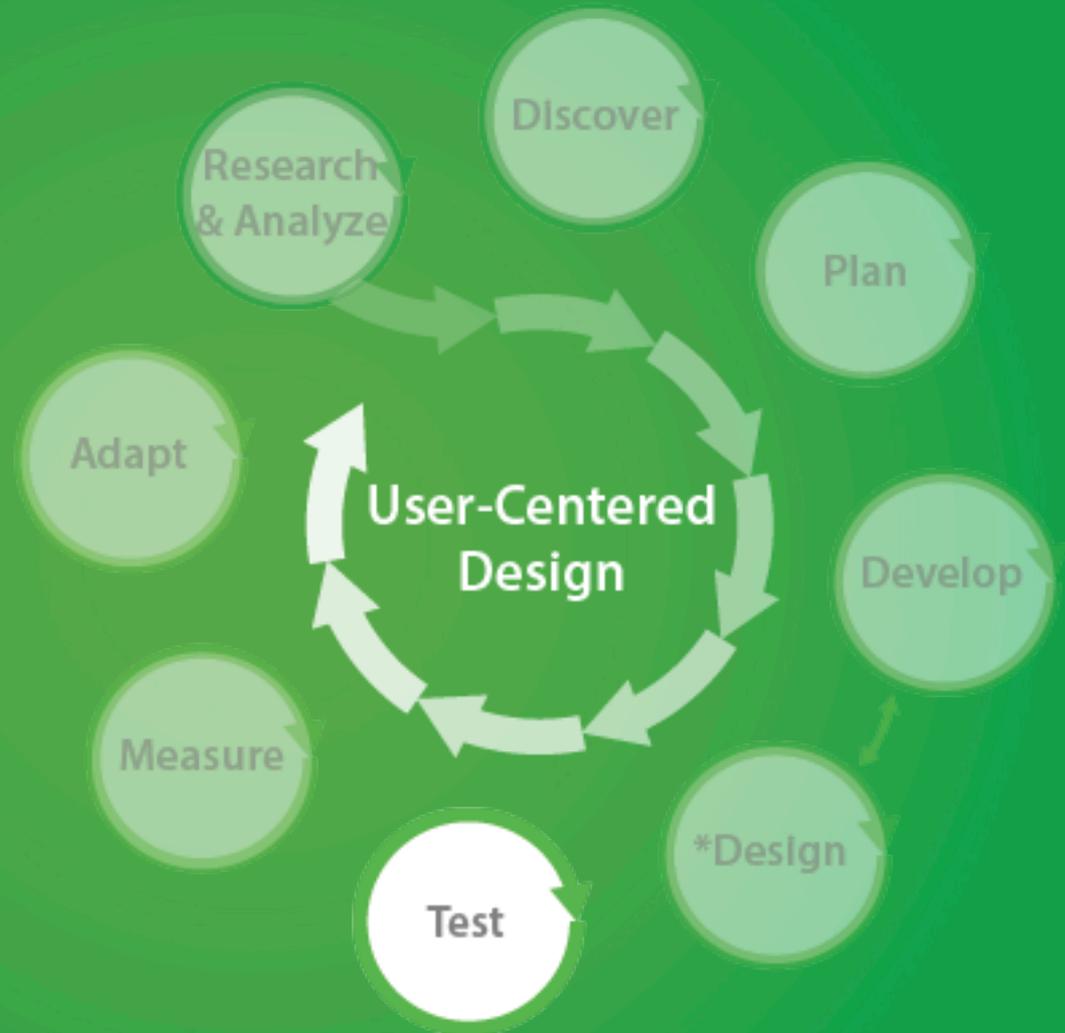


Development



## Test

- *Testing Process*
- *Do's & Don'ts*
- *A/B*



# Usability/ Performance Testing

## Usability

- Focus group testing (soft, open, qualitative feedback)
- Surveys (closed, quantitative feedback)

## Analytics

- Hard, quantitative feedback
- Refer to performance metrics
- Must maintain statistical significance
- A/B Test (*details to follow*)



# Test > What can we test?

## Paper prototypes

- Internal resources, F&F

## Clickable prototypes

- Online test participants, F&F

## Developed prototypes

- Alpha/ internal “gut-checks”
- Individual participants

## Real/existing products

- Individual subjects or small formal focus groups



# Test > Process

1. Develop Test-plan
2. Choose testing environment
3. Find/select participants
4. Prepare test materials
5. Conduct the sessions
6. Debrief with participants & observers
7. Analyze data and observations
8. Create finding & recommendations

# Test > 1. Develop Test-plan

## Test-plan [<<view template>>](#)

- Define baseline for user-performance and user-satisfaction levels
- Define testing roles (*trainer, facilitator, data logger, test observer, test participant*)
- Define/test usability tasks (re-cycle use cases)
- Define/test Usability metrics
  - Scenario completion (time)
  - Critical errors (severity)
  - Non-critical errors (frequency)
  - Subjective evaluations

# Test > 2-3. Environment & Participants

Environment	Pros	Cons
In Person	<ul style="list-style-type: none"><li>Can see/hear reactions</li><li>Can record convo and click-path</li><li>Stakeholders can watch</li></ul>	<ul style="list-style-type: none"><li>Participants have to travel</li><li>Less accessibility from outside regions</li></ul>
Remote	<ul style="list-style-type: none"><li>Don't have to travel</li><li>Have access to participants from other regions</li><li>Can record convo and click-path</li></ul>	<ul style="list-style-type: none"><li>May not be able to view reactions</li></ul>
Unmoderated	<ul style="list-style-type: none"><li>Easier for participants to complete on their own time</li><li>have access to outside participants</li></ul>	<ul style="list-style-type: none"><li>Can't ask follow-up questions</li><li>Don't hear participants think out loud</li><li>Don't see reactions</li></ul>
Guerrilla	<ul style="list-style-type: none"><li>See and hear reactions</li><li>See participants use product on different devices (theirs)</li></ul>	<ul style="list-style-type: none"><li>Need location/manager approval</li><li>Customers may not be target audience</li><li>Stakeholders can't participate</li></ul>

# Test > 4-5. Prepare and Conduct Test

## Test scripted scenarios

- Walk through scenarios of the system
- *Record interaction, identify points of interest, identify patterns of behavior*

## Monitor

- Screen capturing (Inspectlet)
- Heat maps (Crazy Egg)
- Micro analytics (per/user actions) (Mixpanel)
- Macro analytics (Google)

# Test > Do's & Don'ts

## DO

- Test the product not the participant (task oriented)
- Note participant's successes in completing tasks
- Ask open ended follow-up questions
- Compensate participants

## DON'T

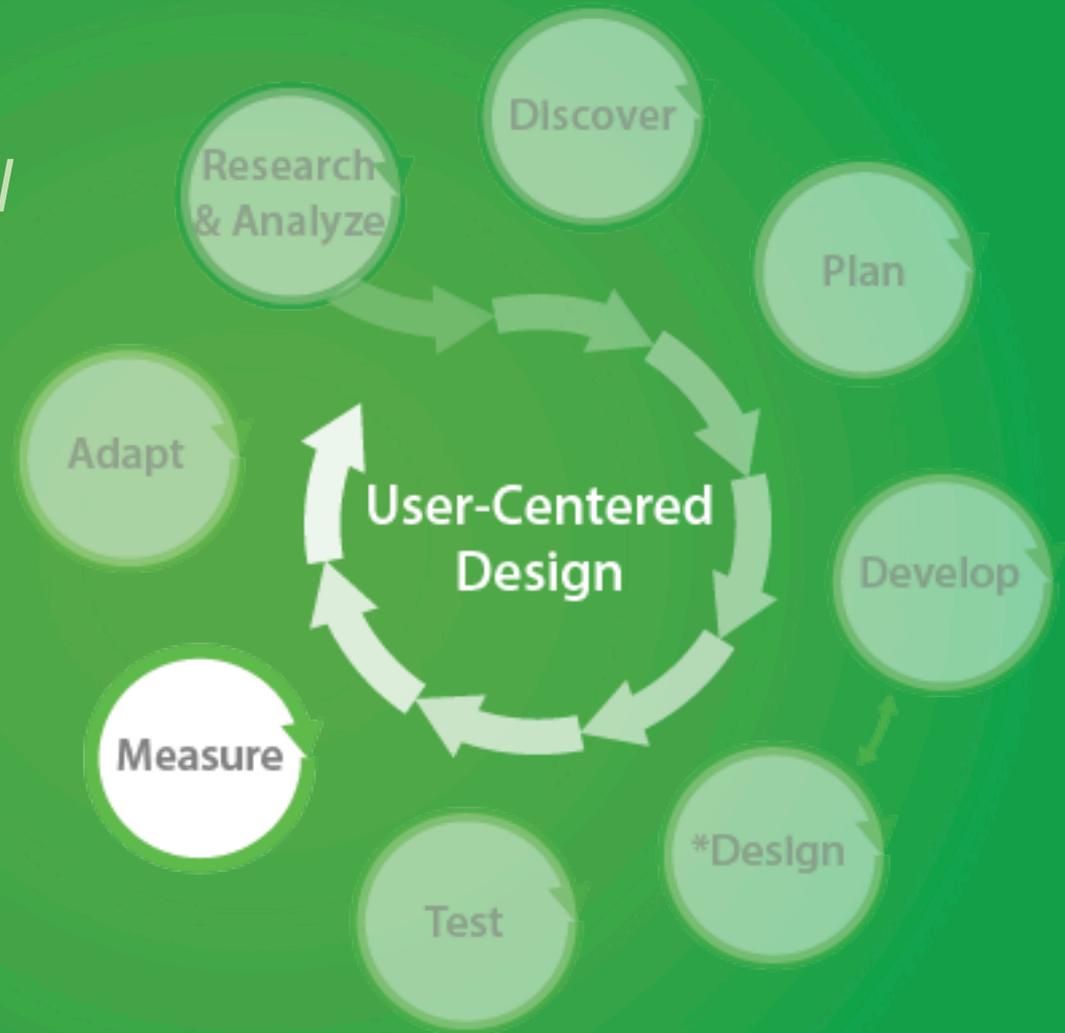
- Give participants tasks that cannot be completed
- Guide participants
- Answer questions until the end
- Take comments personally

# Test > A/B Testing

1. Make hypothesis you can prove or refute
2. Always test one variable
3. Define **one success metric** that will determine the winner
4. Check volume and \*statistical significance
5. \*Randomize your test group selection
6. Test but gut-check to avoid over-testing
7. Be diligent about documenting

## Measure

- *Define purposeful metrics*



# Define Metrics that Measure:

1. Mental effort necessary to use (ease)
2. Mistakes and their severity
3. Speed of using the system
4. Speed of user-activation  
(understanding the system)

# Measure

## 1. Requires less mental effort to use:

### **Quantitative**

- # seconds to complete a testing scenario
- # questions user has when given a testing scenario
  - Refine “required knowledge”
  - Adjust “artifacts” in UX

### **Qualitative**

- Interview participant for straining tasks

# Measure

## 2. Mistakes and their severity:

### **Quantitative**

- # Mistakes made per scenario
- # Minutes/seconds wasted after mistake is made before getting back on track

### **Qualitative**

- Interview responses re: mistakes and UX frustration

# Measure

## 3. Speed of using the system

### Quantitative

- Re-test “**activated**” users on repeat scenarios, measure time
- Aggregated change of transaction frequency
- Average time to complete transactions



# Measure

## 4. Speed of “figuring out” the system

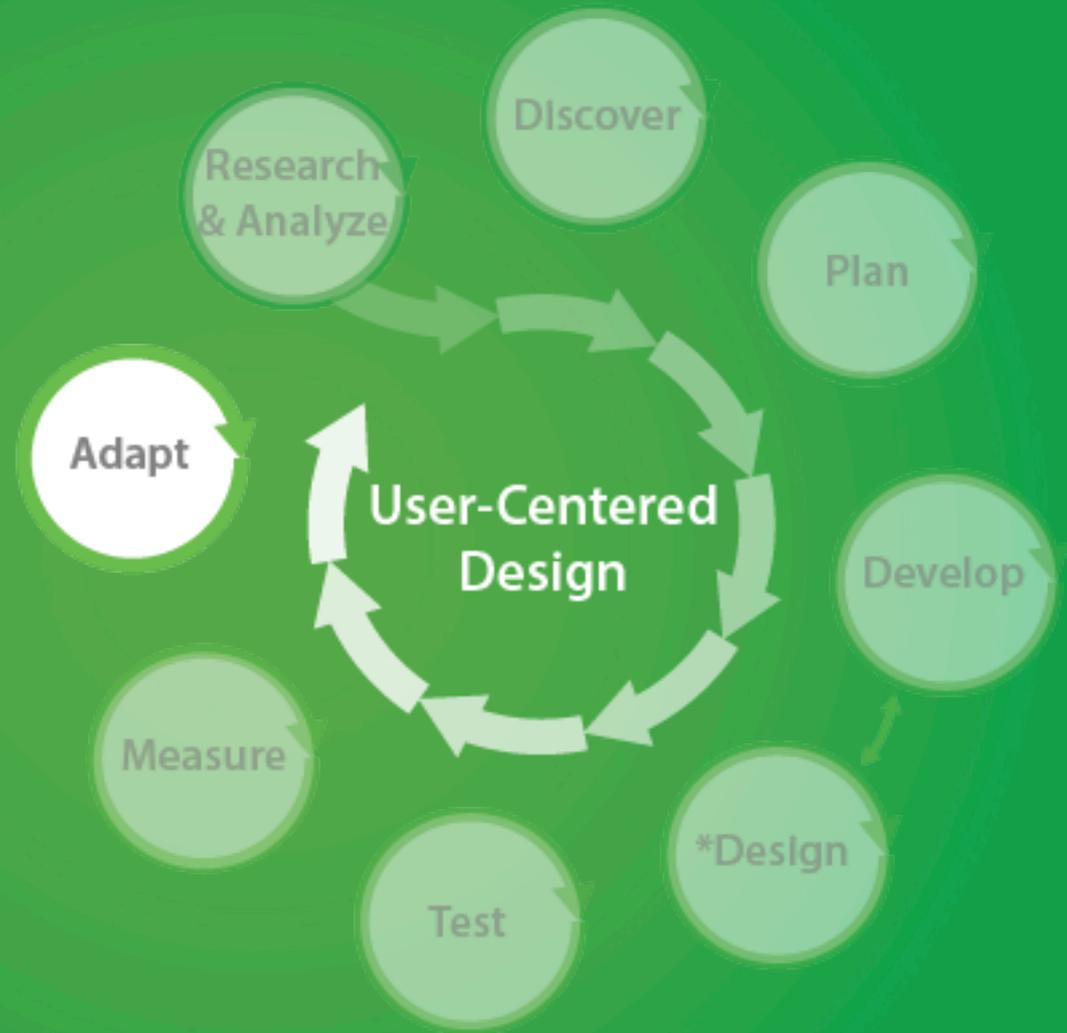
### **Quantitative**

- Time required to “activate” user
- # of questions prior to completing a task

### **Qualitative**

- Type and severity of questions prior to completing a task

## Adapt



# Adapt (if necessary)

## Make it better

- Analyze your results
  - Do they meet/exceed your user-performance levels from the test-plan?
  - Do they meet/exceed your user-satisfaction levels from the test-plan?
  - Do they meet/exceed your business goals for the product?
- **No?** feed back into “discovery” and gather new insights to rapid-test.