

Software Engineering

Part (X)- UX Design

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Shahid Beheshti University, Fall 2023

UI
Design



UX
Design

Color Blocking
Air Unit
Cropped Swoosh
Flexibility

User Experience

- User experience (UX) design defines the experience a user would go through when interacting with a company, its services, and its products.

UI Elements

- Colors
- Typography
- Content layout
- Buttons and icons
- Menus
- Forms
- Images
- Fonts

UX Key Components

- User research
- Information architecture
- Visual hierarchy
- Wireframing
- User flows and personas
- Prototyping
- Iterative testing and feedback
- Accessibility

UX Research

- User experience (UX) research is about diving deep into **how customers interact** with your brand on a practical, functional level, and observing **how easily** they can **complete their tasks** and meet their goals.

Zenprint: 7% reduction in bounce rate

- Zenprint provides order and wholesale digital printing services in the Australian market.
- Zenprint's biggest challenge was identifying factors leading to drop-offs on their website. The brand's marketing team struggled to figure out:
 - Where people spent their time
 - What users were interested in
 - What caused them to drop off

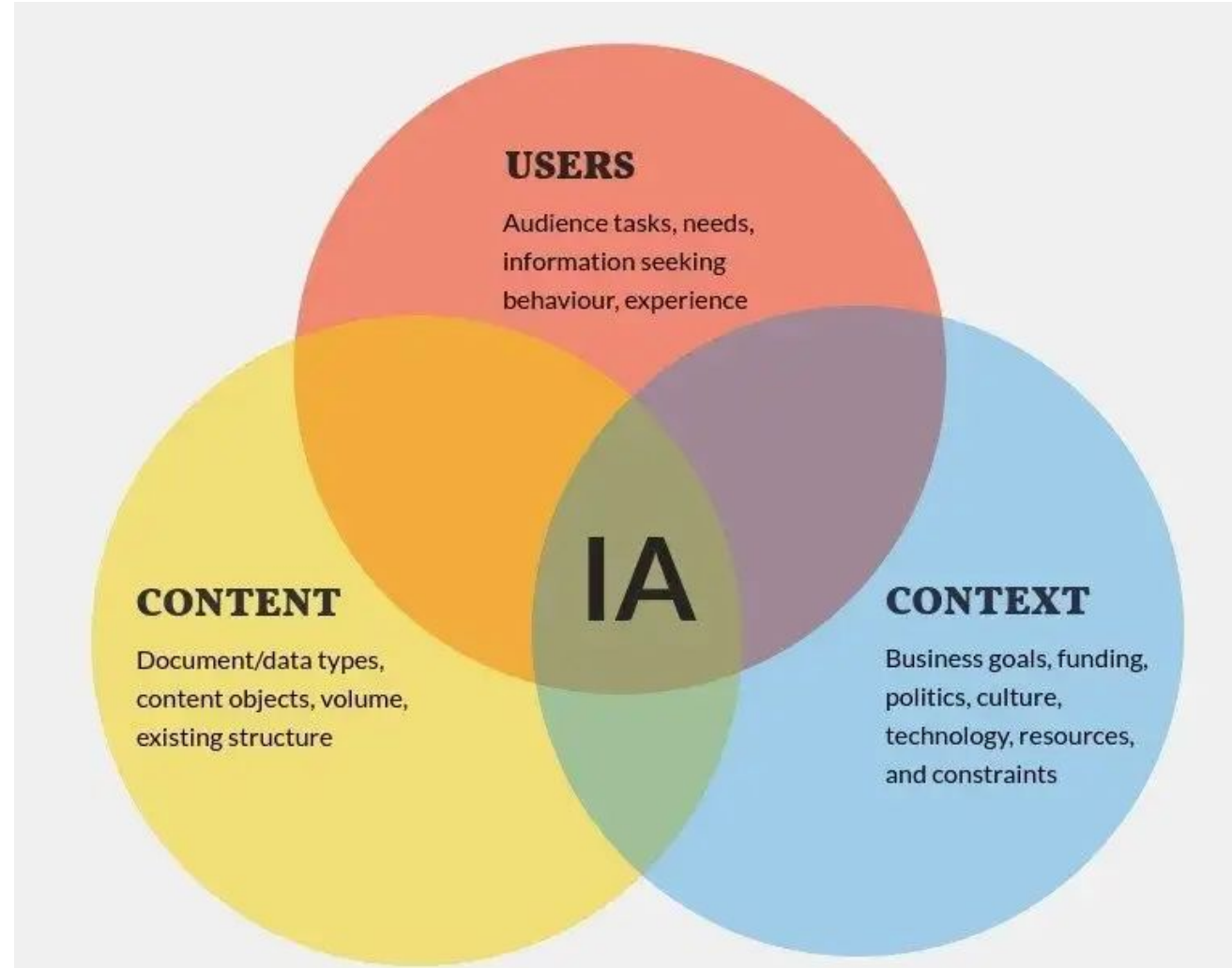
Zenprint: 7% reduction in bounce rate

- Action Plan
 - Session recordings
 - Heatmaps
 - Funnels
- This action plan helped the team zero in on their [pricing table](#) as a major blocker.

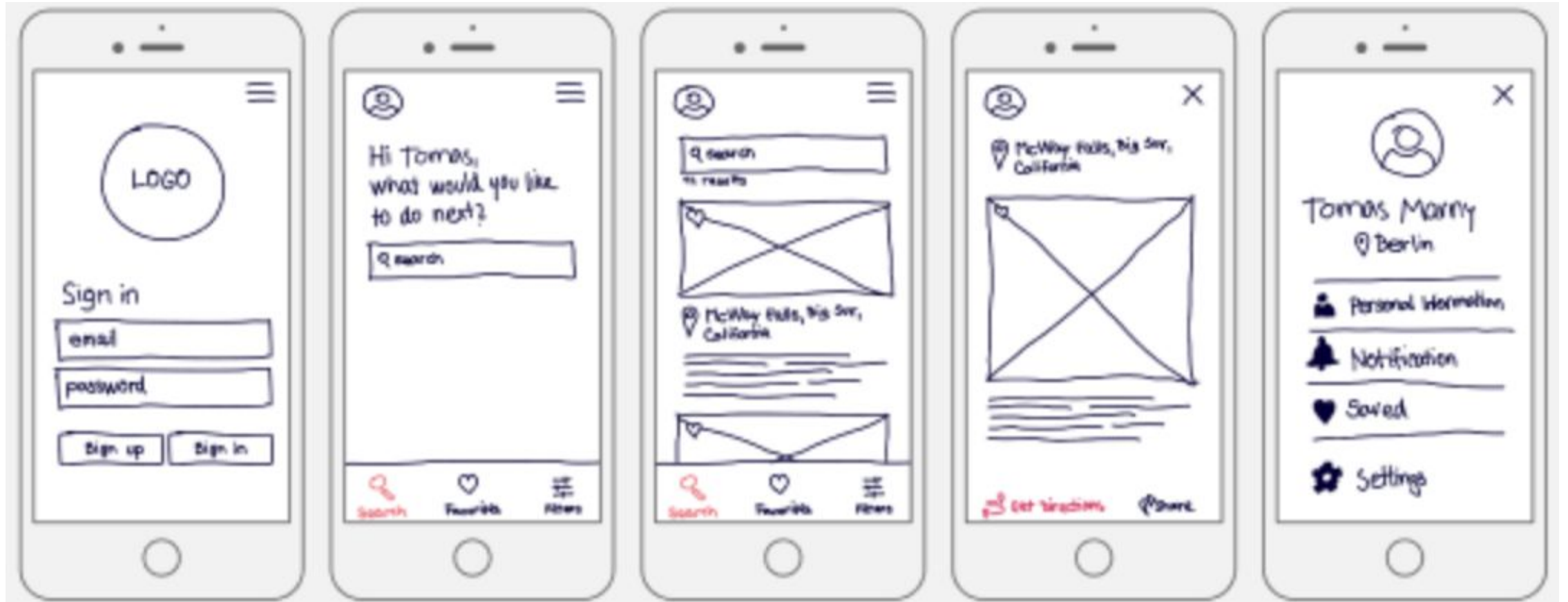
Zenprint: 7% reduction in bounce rate

- Once Zenprint identified the problem, the next step was split **testing multiple layouts** to optimize the pricing table.
- With a simple change in their pricing plan, the Zenprint team reduced drop-off rates by 7%.

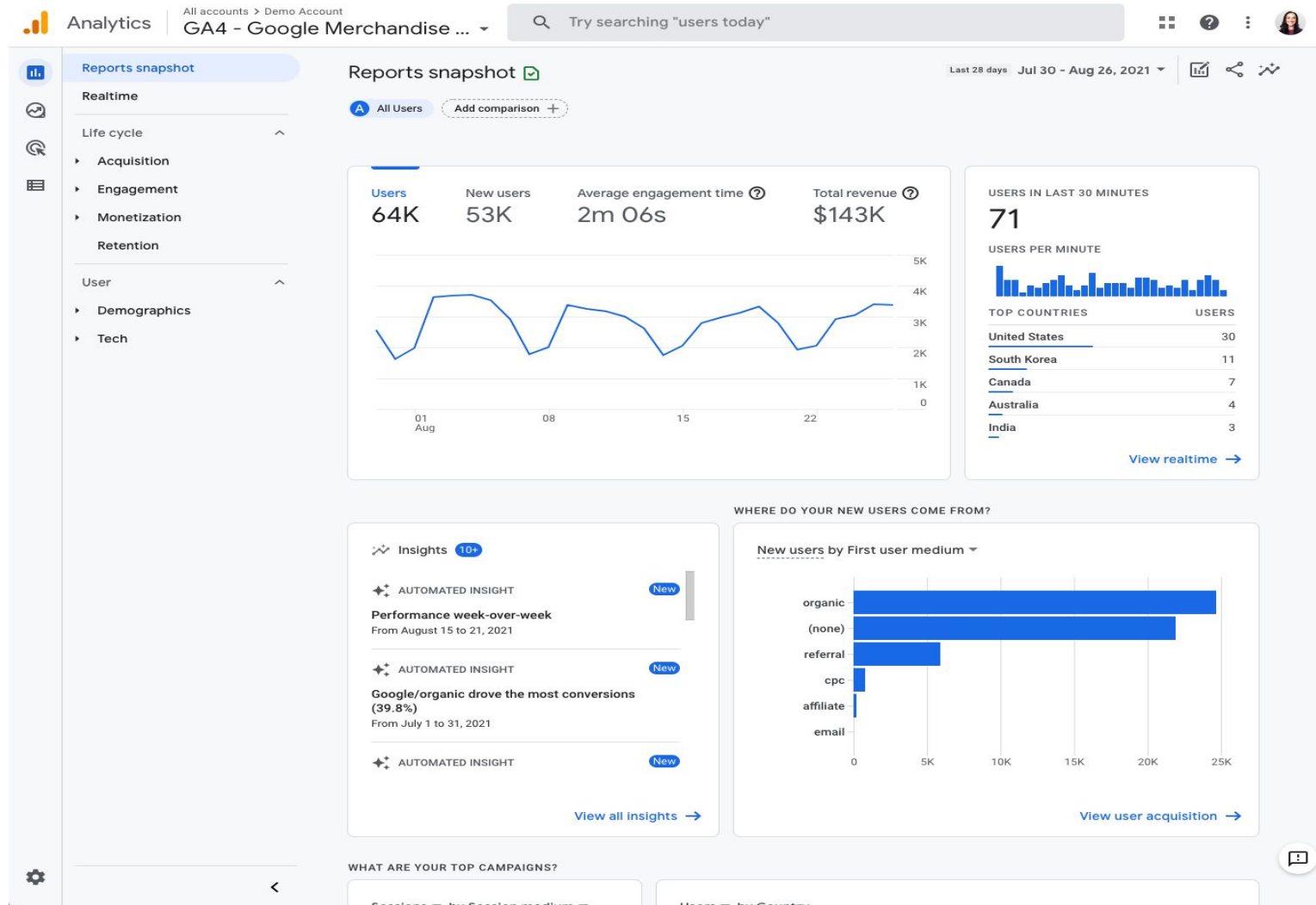
Information Architecture



Wireframe



Data Driven User Testing



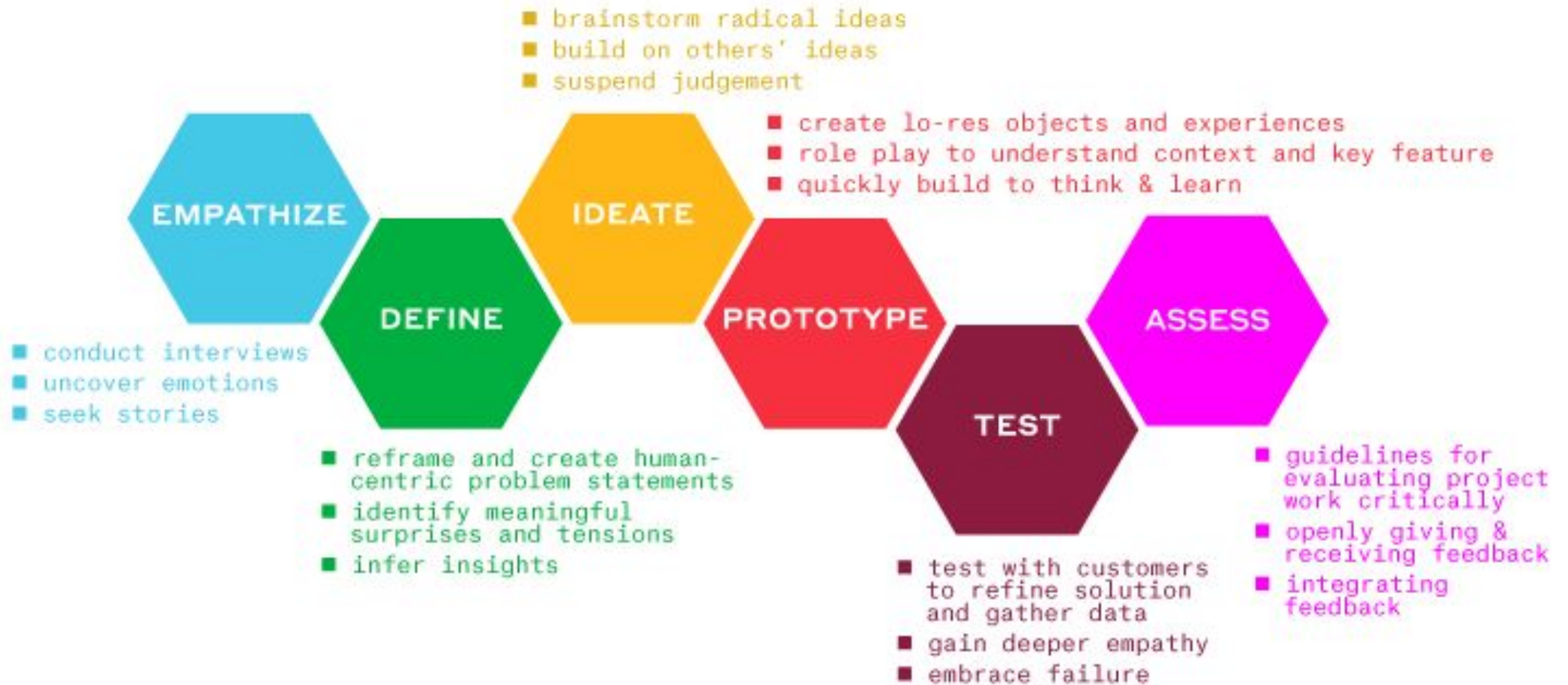
UX Metrics

- Bounce Rate
- Events (scrolling, first visit, menu click, file download)
- New Users
- Page Views (by source and devices)
- User Engagement
- View per Users
- User Retention
- Churn Rate

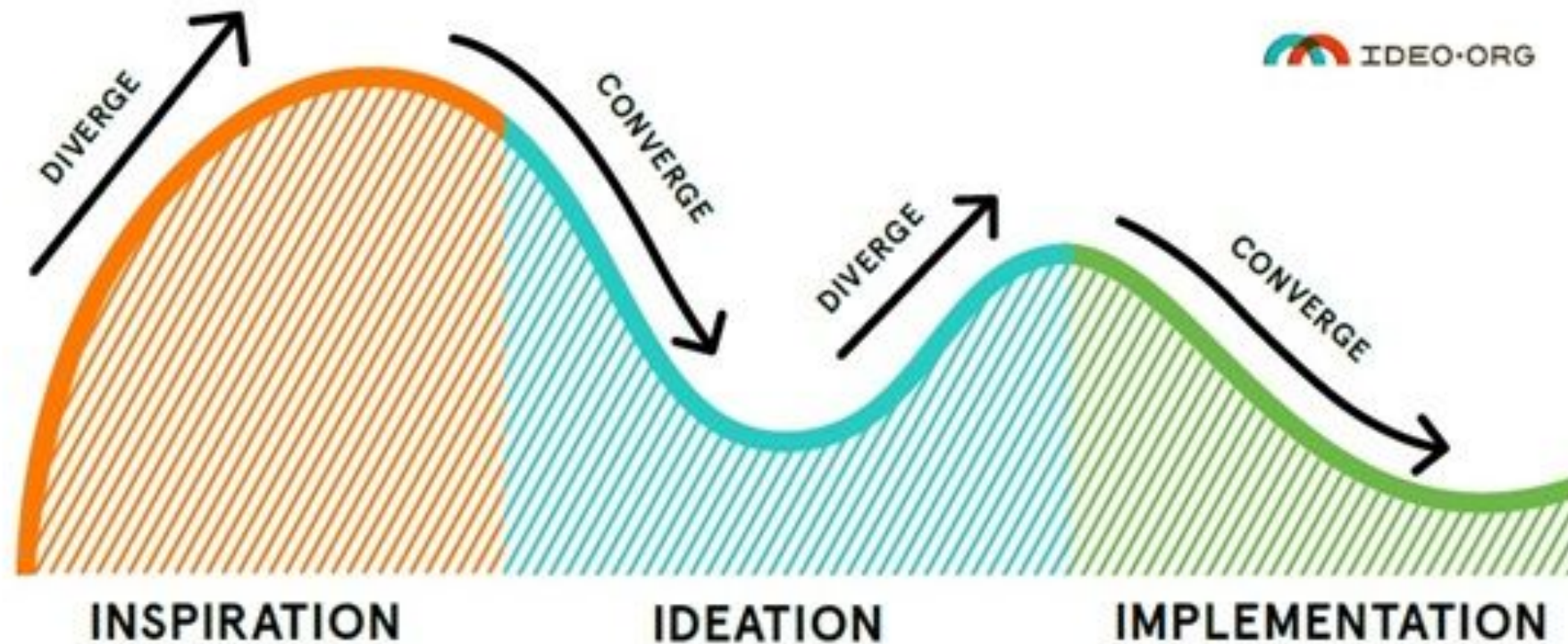
Design Thinking

- Design thinking is a **problem-solving and innovation** methodology that originated in the field of design but has since been applied to various disciplines and industries.
- It places a strong emphasis on **understanding the needs and perspectives of users or customers** in order to develop creative and effective solutions

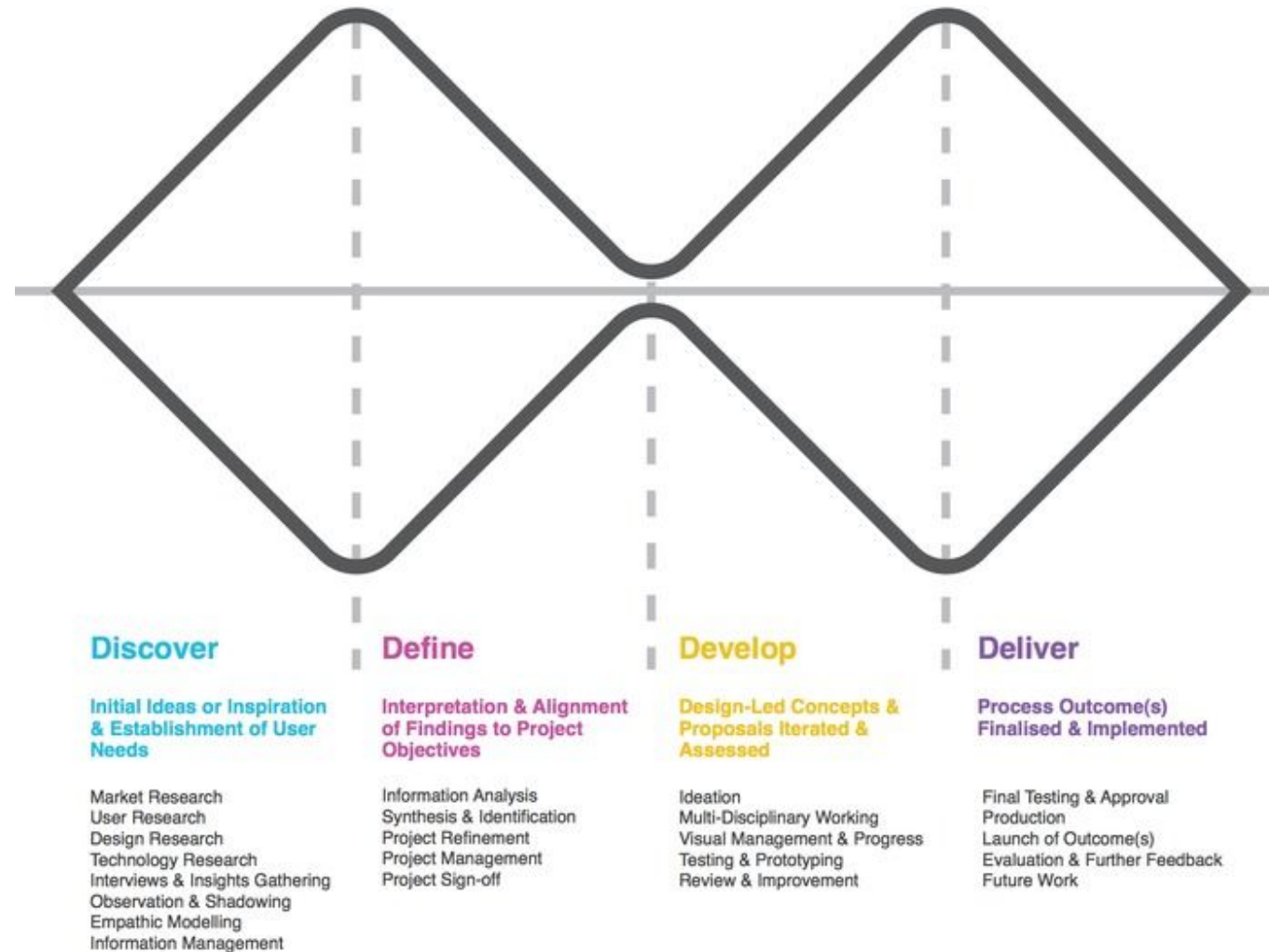
Design Thinking Process



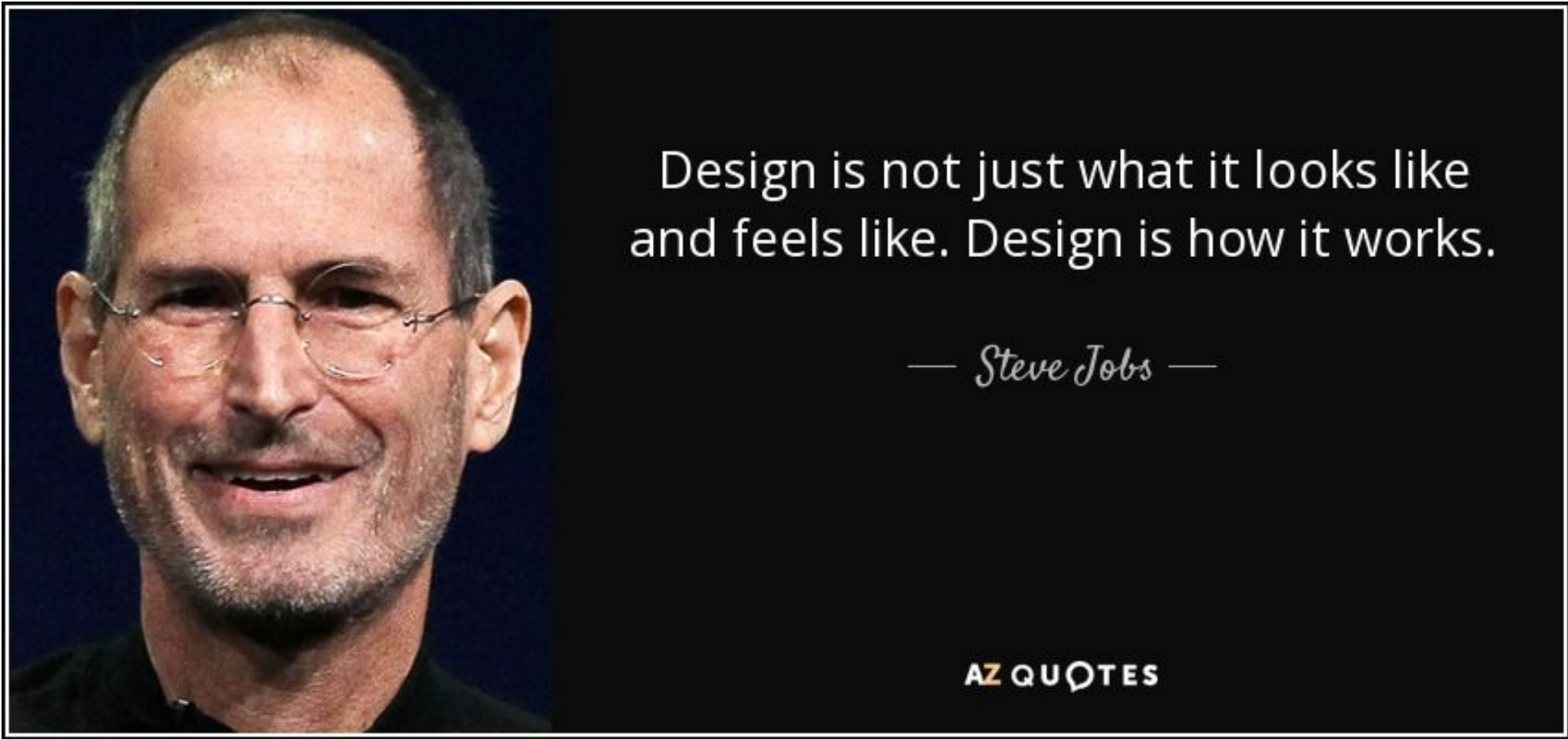
IDEO Design Thinking Framework



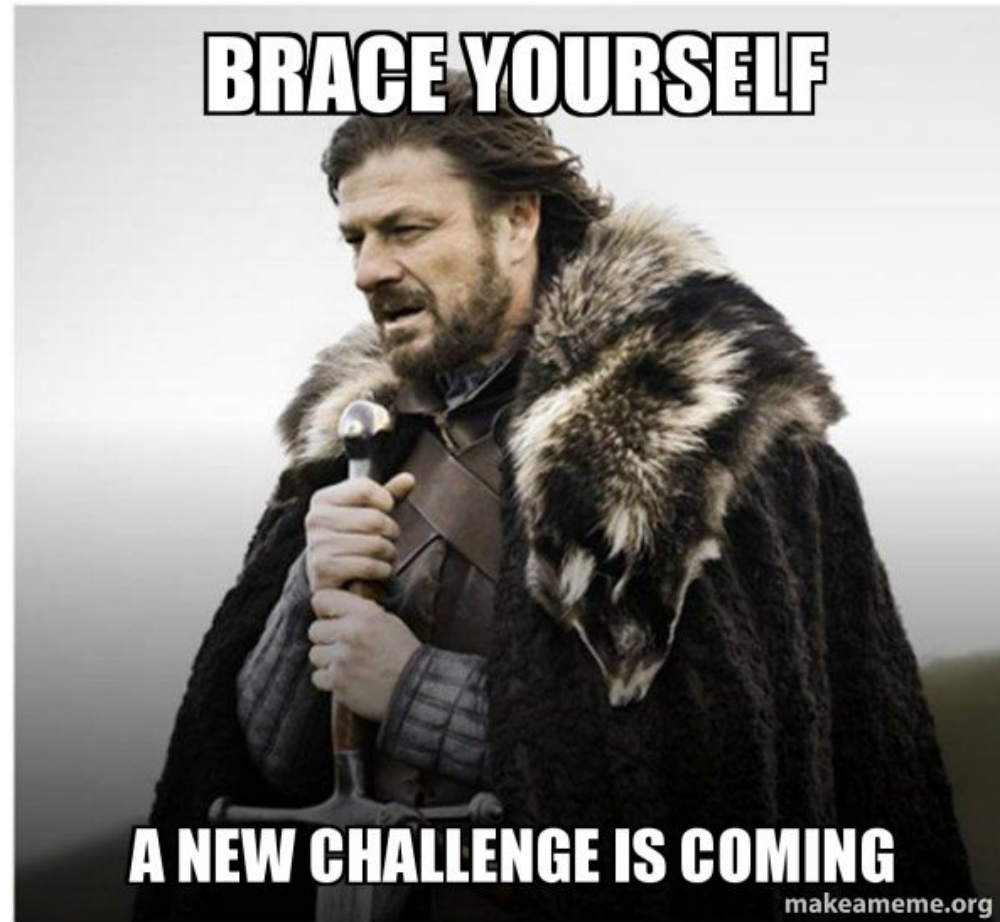
Double Diamond Framework



Quote of the Day



On-Site Challenge!



Readings

- Software Engineering: A Practitioner's Approach, Roger Pressman and Bruce Maxim, 9th Edition, September 2019, Chapter 12.
- <https://www.hotjar.com/ux-research/examples/>
- <https://empathizeit.com/what-is-design-thinking/>