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EXPERIENCE DESIGN ENGINEER

March 11, 2020

Footings and Fixtures

Foundations of Design

TorCHI

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Popularity is not a
guarantee of quality

Indira Gandhi



GA \Leftrightarrow AP

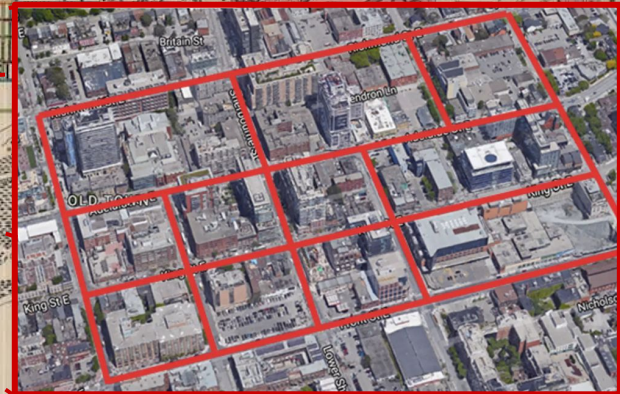


PLAN of the CITY OF TORONTO

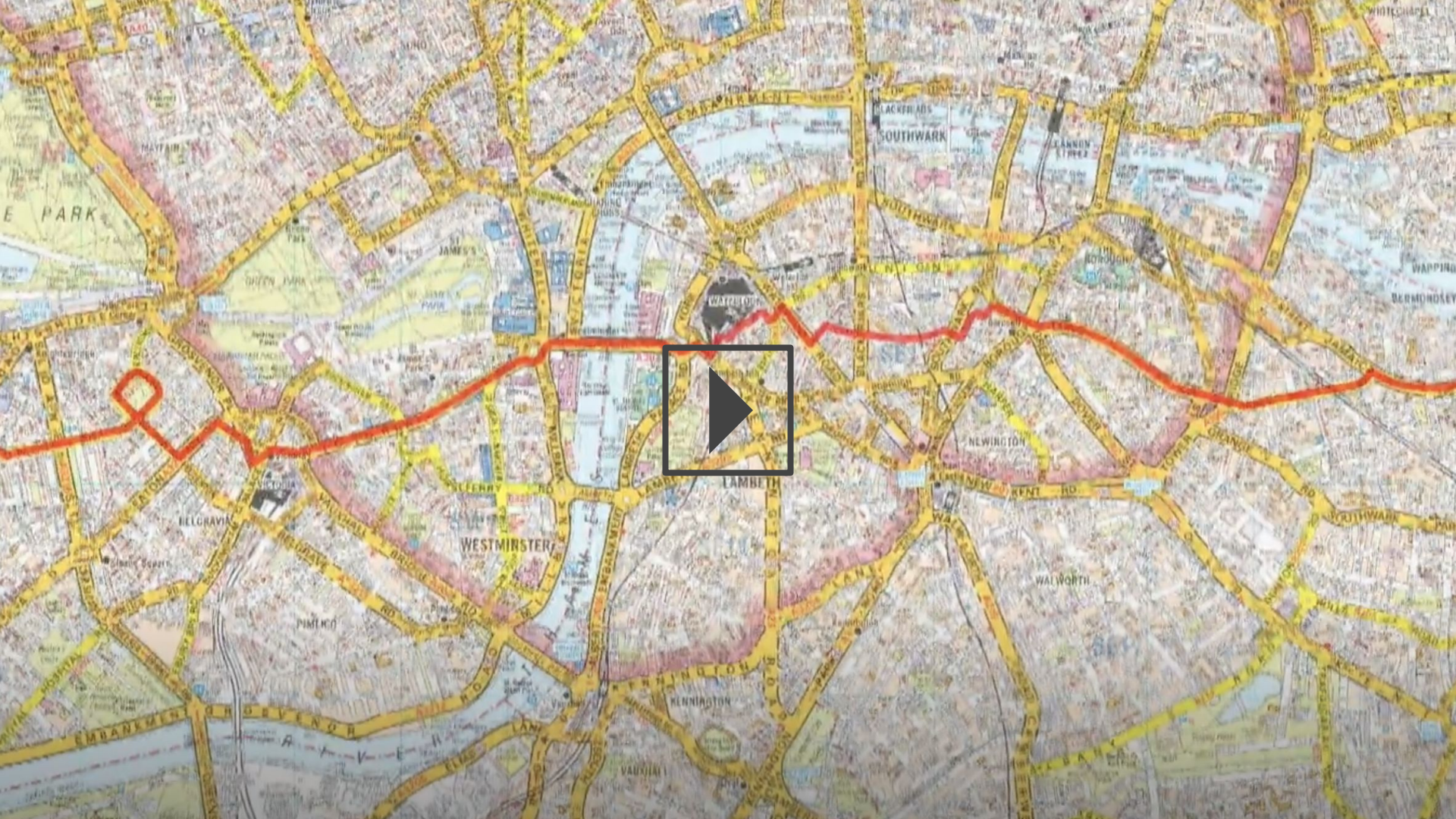
SCALE 2000 FEET TO INCH

CHAS. H. SPENCER & CO. TORONTO

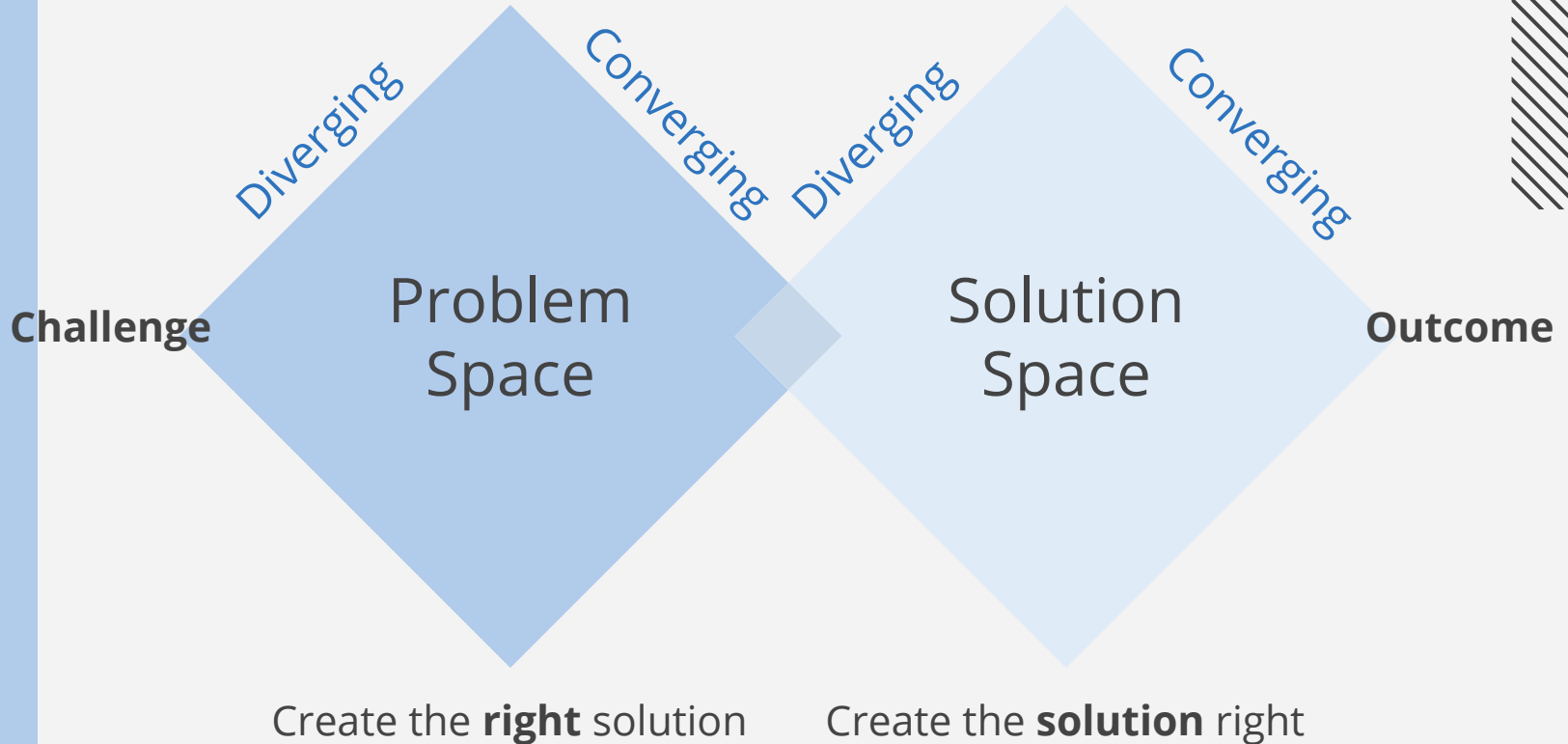
RECENT ANNEXATIONS SHOWN IN RED



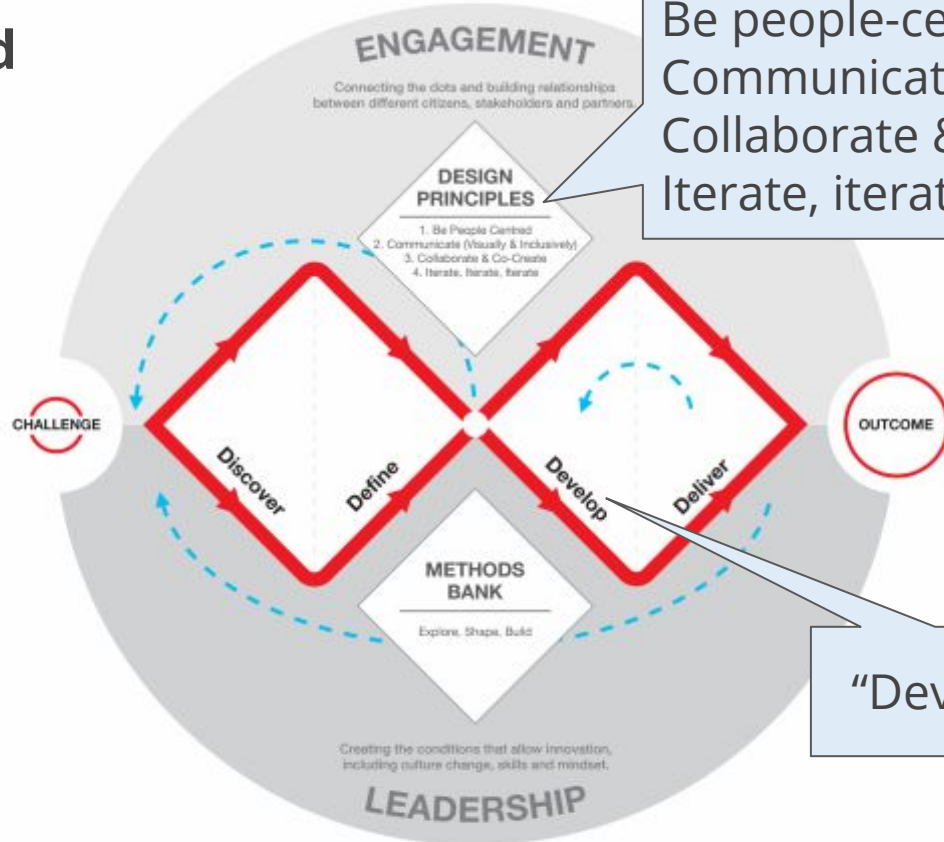
- BRICK
 - CEDAR BLOCK
 - TREATED WOOD BLOCK
 - GRAVEL
 - MACADAM
 - OLD MACADAM
 - TAR MACADAM
- CITY ENGINEER



Design Thinking Process – High Level



Design Thinking Double-Diamond



Design Principles
Be people-centred
Communicate
Collaborate & Co-create
Iterate, iterate, iterate.

“Develop”



Design Thinking Process

Awareness

Research
Empathy

Define

Measurable
result

Ideate
Prototype

Validate

Impact

Iterate

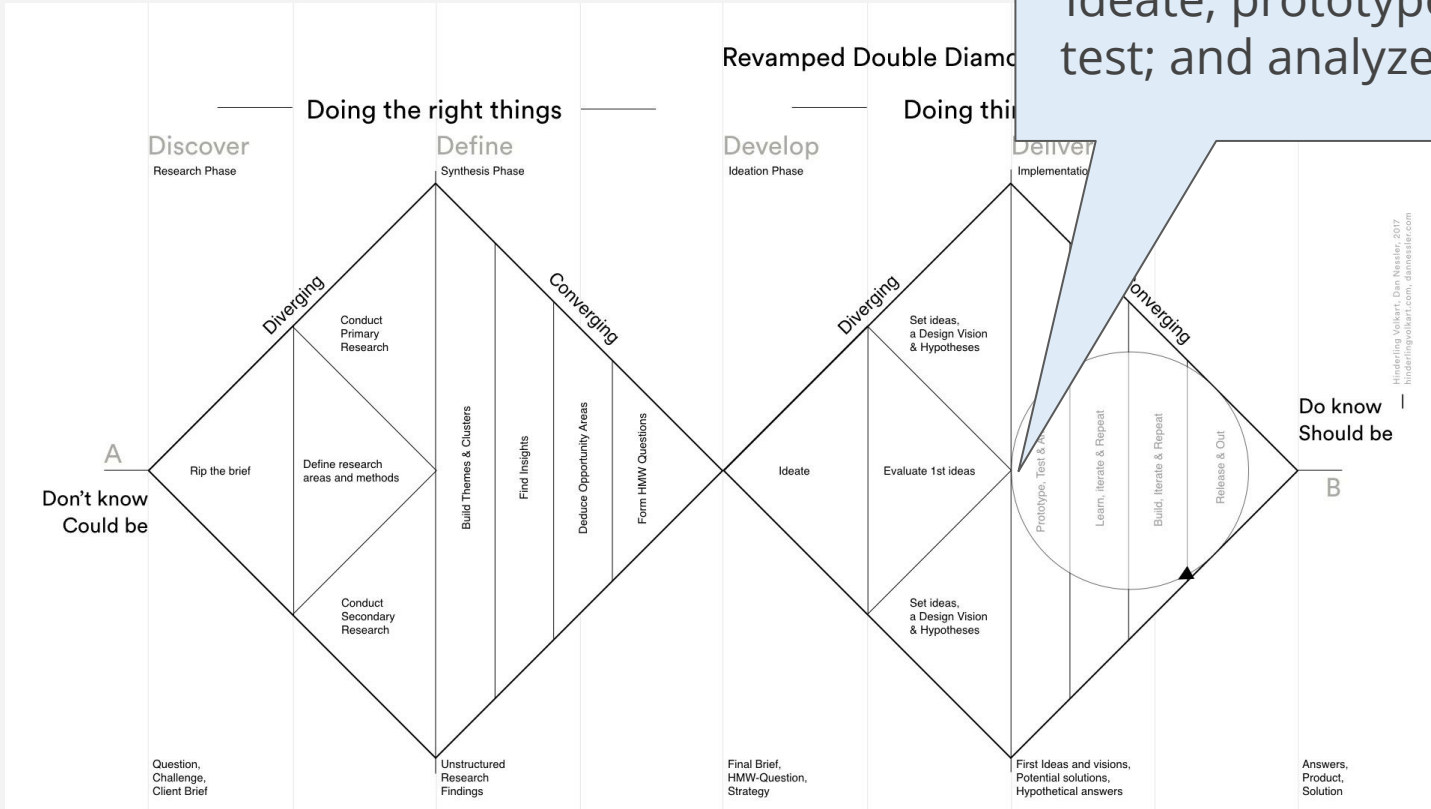
Iterate

"Ideate; Prototype"

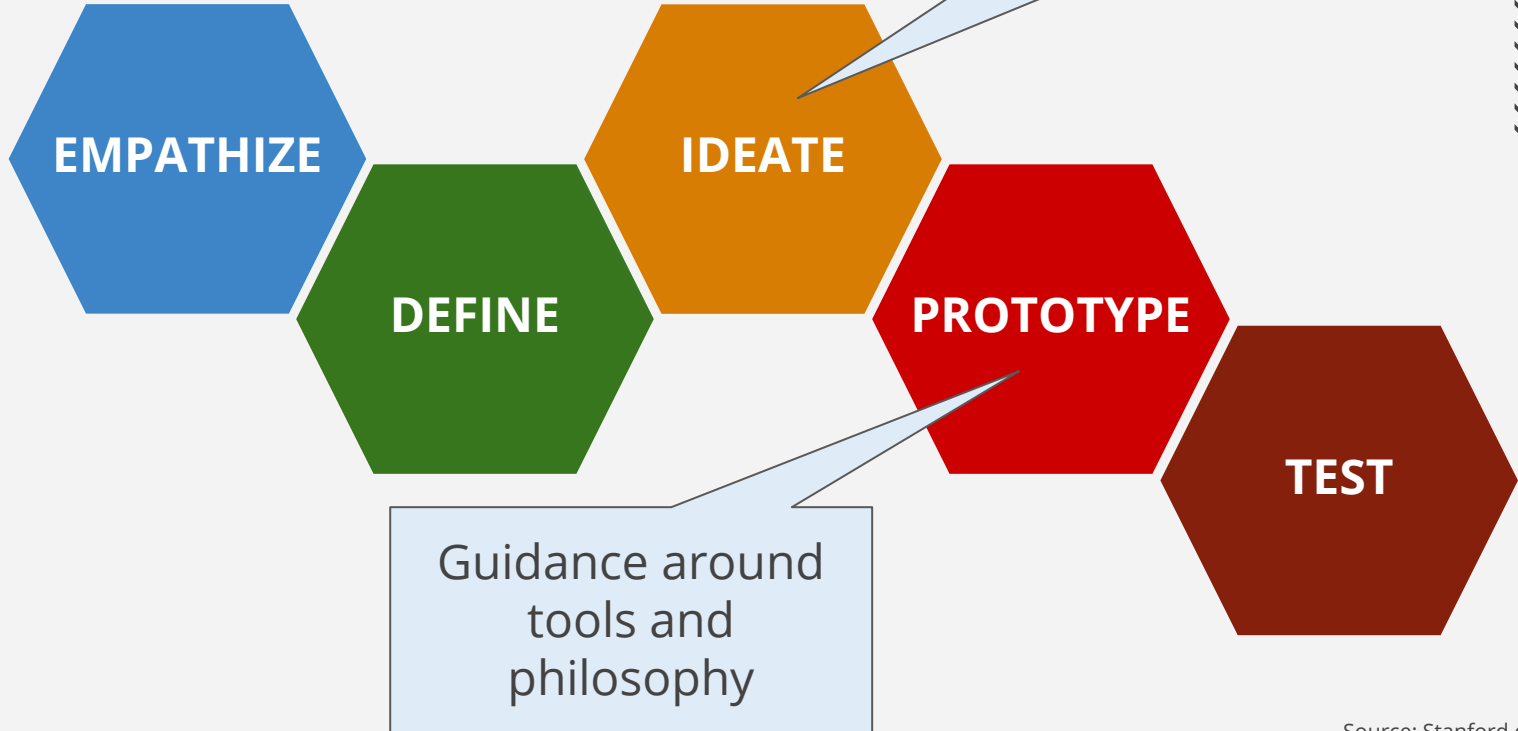
Source: Santos, González Lema, Miño Puga, Párraga, and Calderon (2017)



Design Thinking Process



Design Thinking Process – 5-step



Build and Craft Intentionally

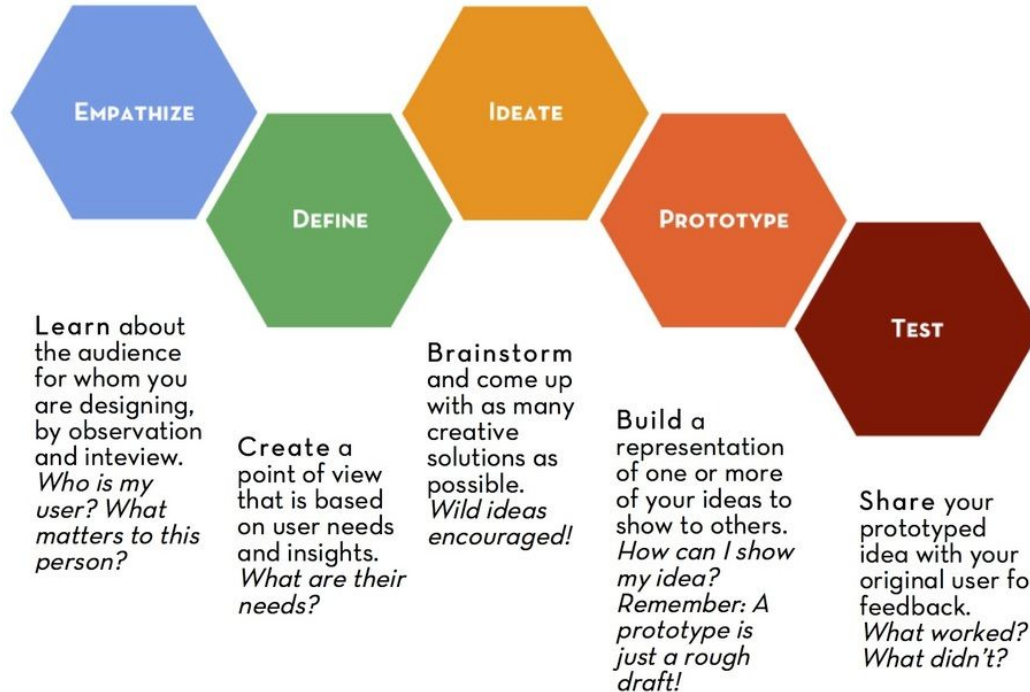
This ability is about thoughtful construction: showing work at the most appropriate level of resolution for the audience and feedback desired.

There are many sub-disciplines of design, each with their own set of tools and techniques. This ability requires a sensitivity to the tools needed to create meaningful work in your domain. UX designers have a specific set of tools to create human-centered digital interfaces. Architects have an arsenal of particular techniques to bring new structures into the world.

Every discipline – immunology, macroeconomics, K12 education, whatever it may be – has its own building methods, and in every case, the details matter.

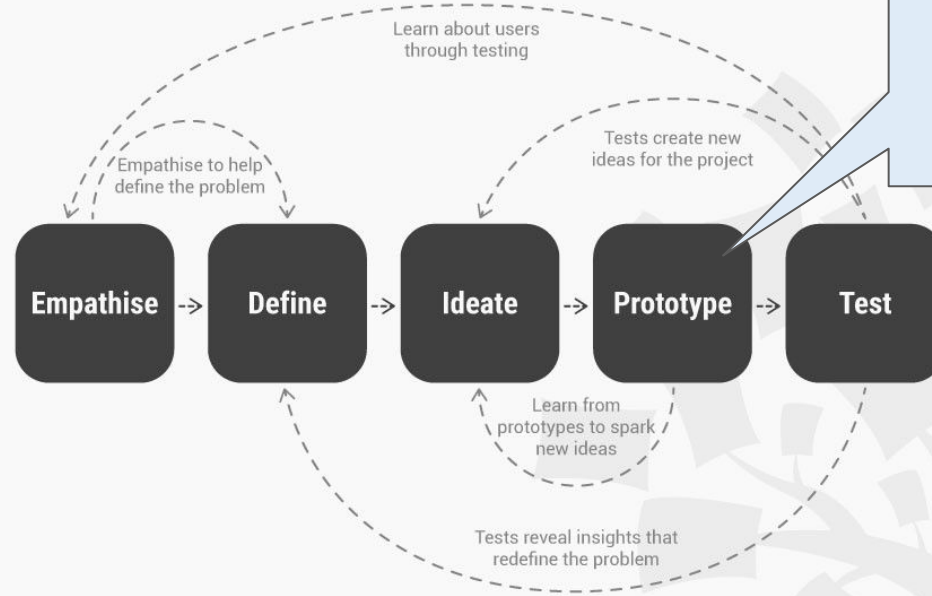
Design Thinking Process – 5-step

We are all DESIGNERS!



Design Thinking Process – 5-step non-linear

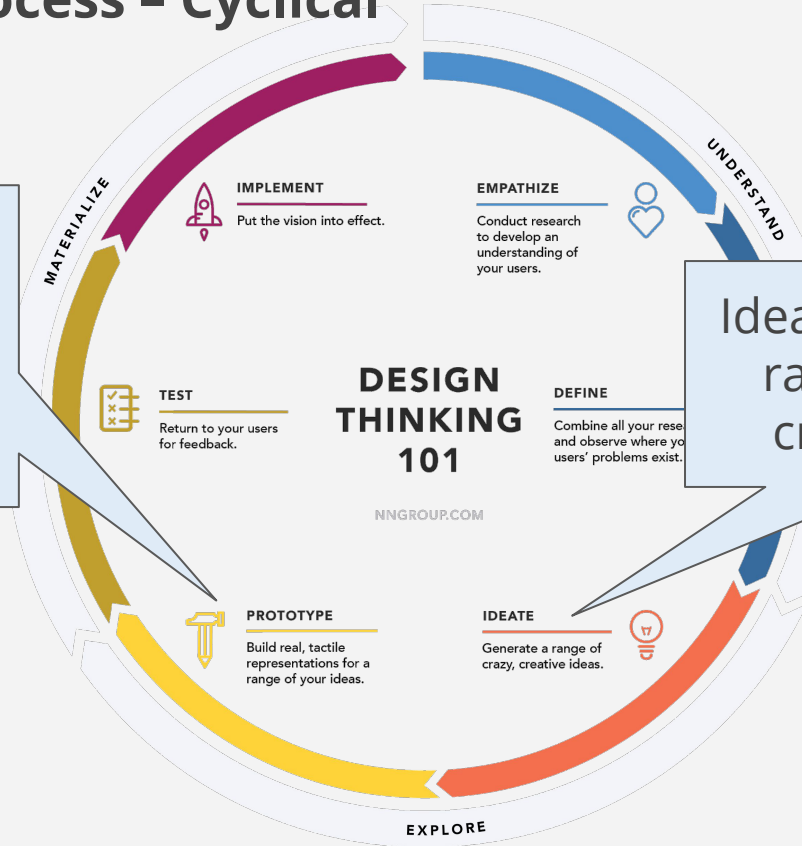
DESIGN THINKING: A NON-LINEAR PROCESS



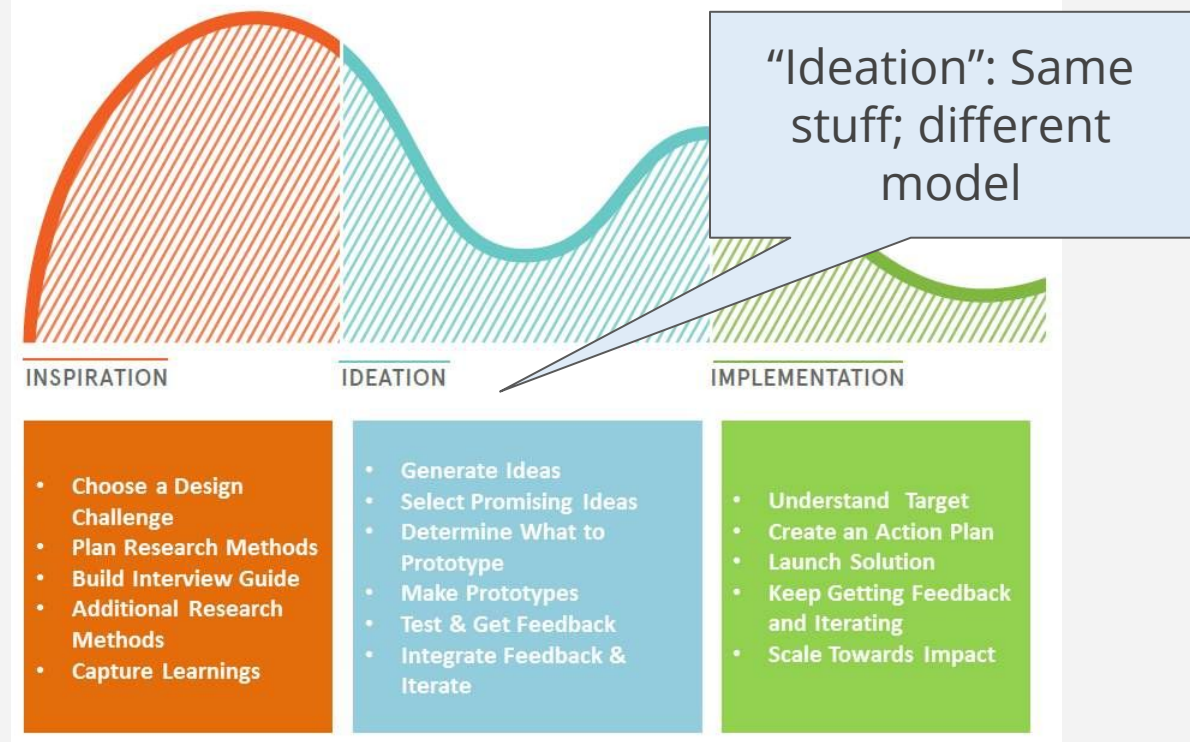
Design Thinking Process – Cyclical

Prototype: Build real, tactile representations for a range of your ideas

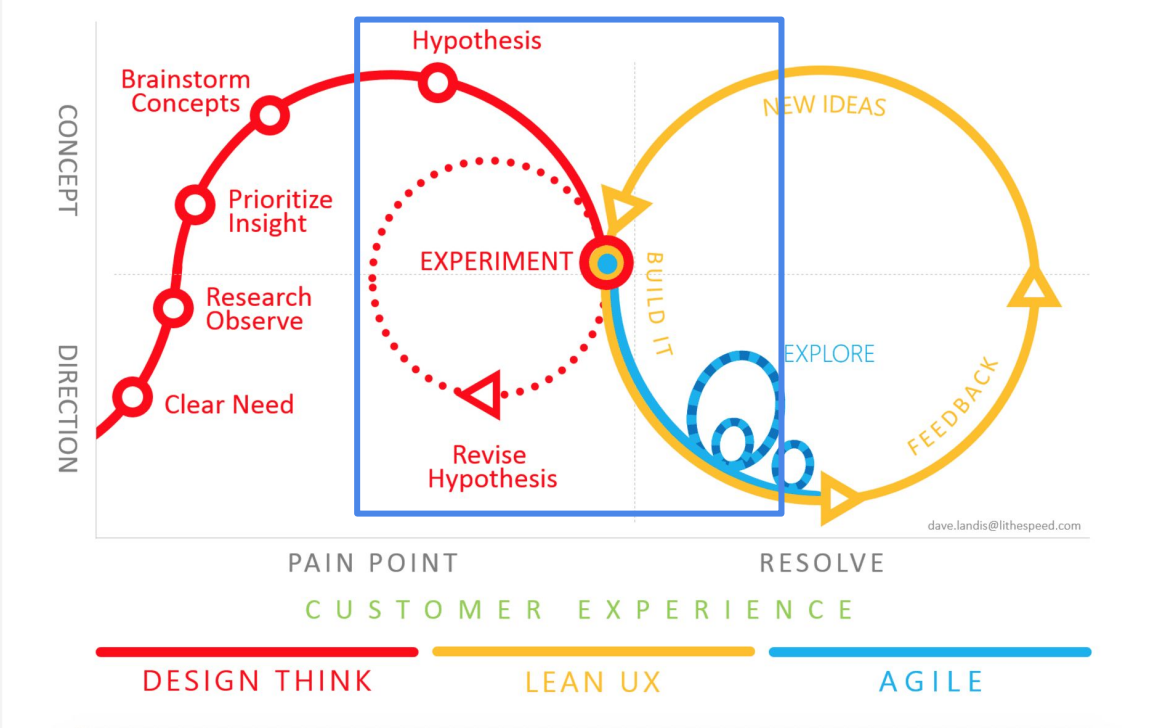
Ideate: Generate a range of crazy, creative ideas



Design Thinking Process – Roller Coaster



Design Thinking Process – Lean UX





MINIMIZE IMPACT OF CHANGE

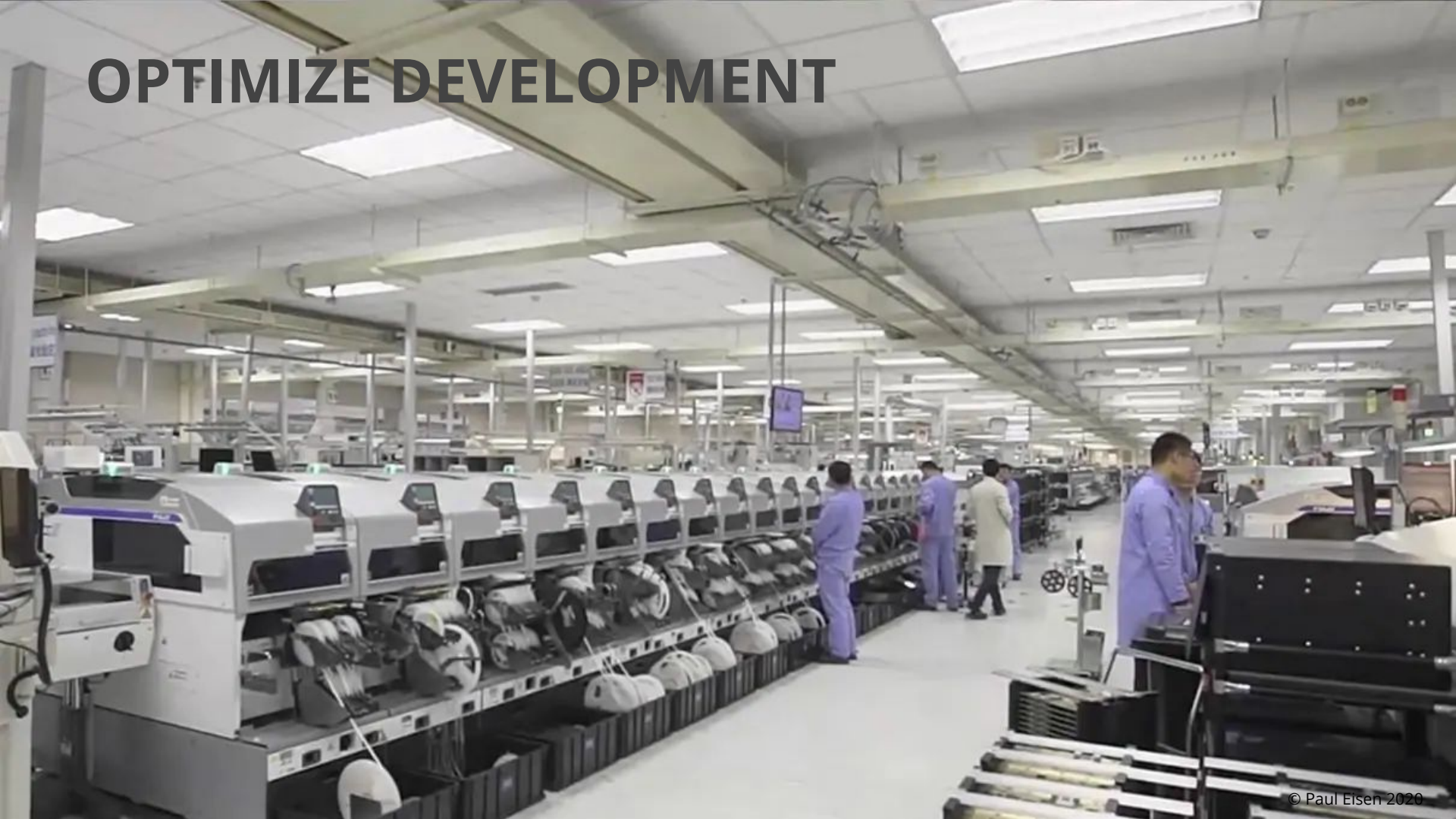
SCALE



OPTIMIZE EXPERIENCE



OPTIMIZE DEVELOPMENT



EARLY BUY-IN



Purpose of High-Level Design - Summary

Goal

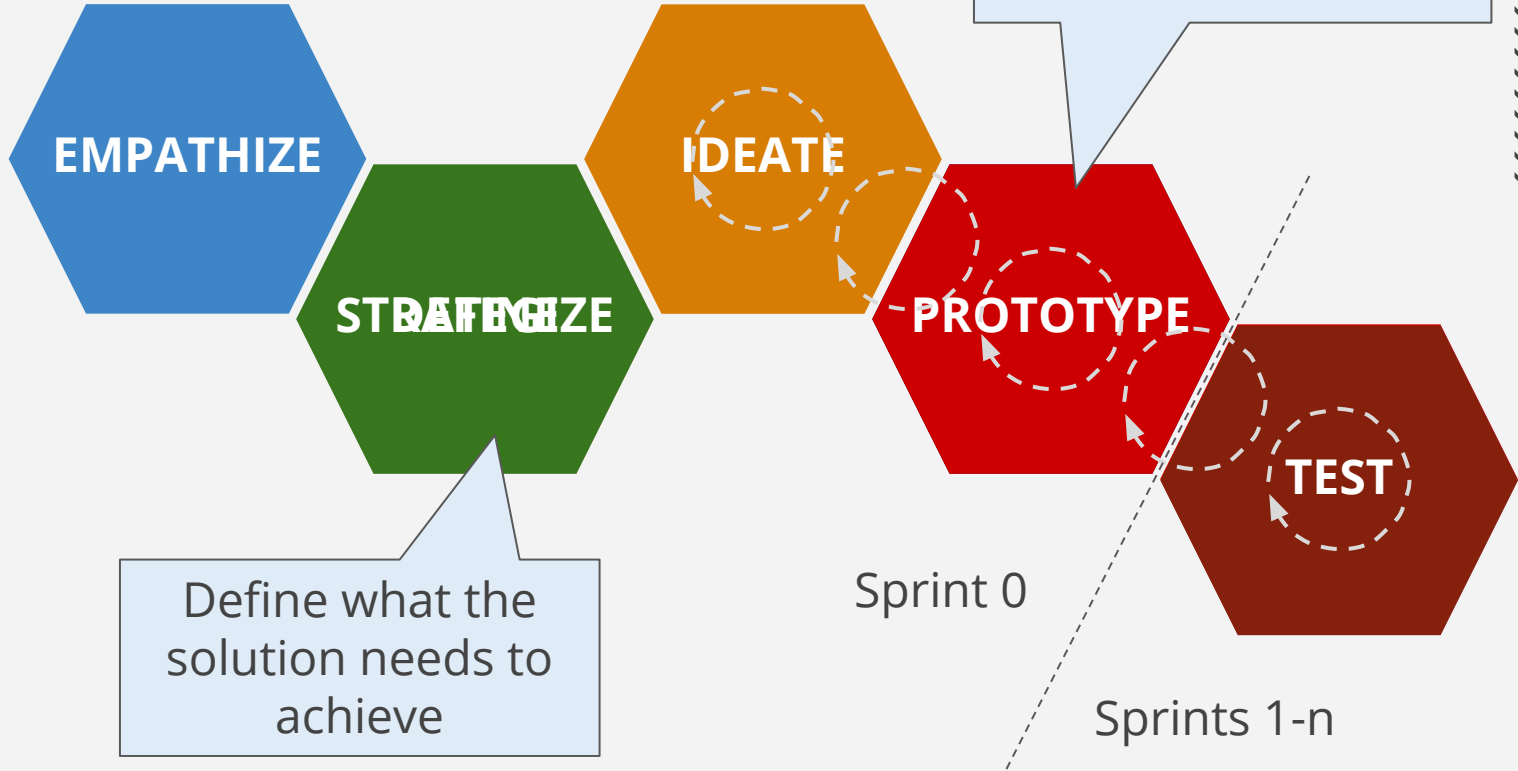
- Minimize impact of change on all stakeholders

Objectives

- Maximize the scalability over multiple releases
- Efficiently optimize the user experience
- Enable the efficient application of a design system - models, principles, guidelines, and patterns
- Gain early buy-in

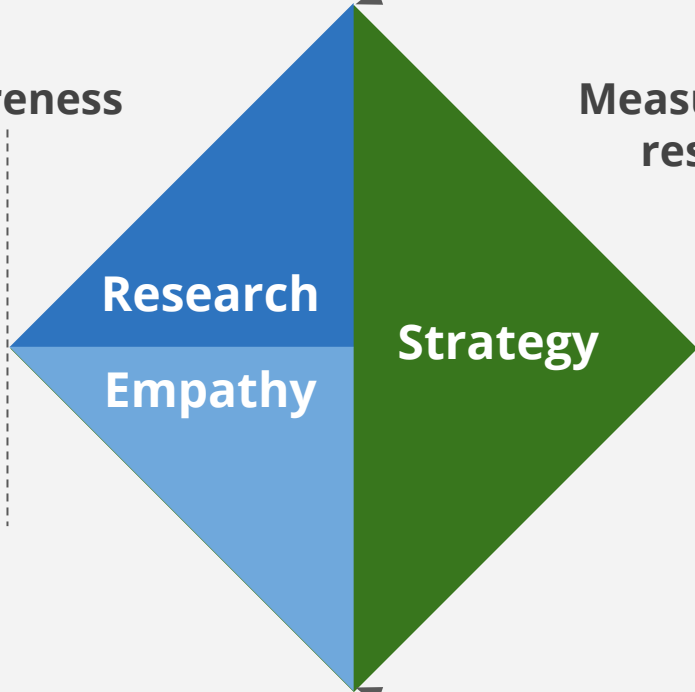


Modified 5-Step Process

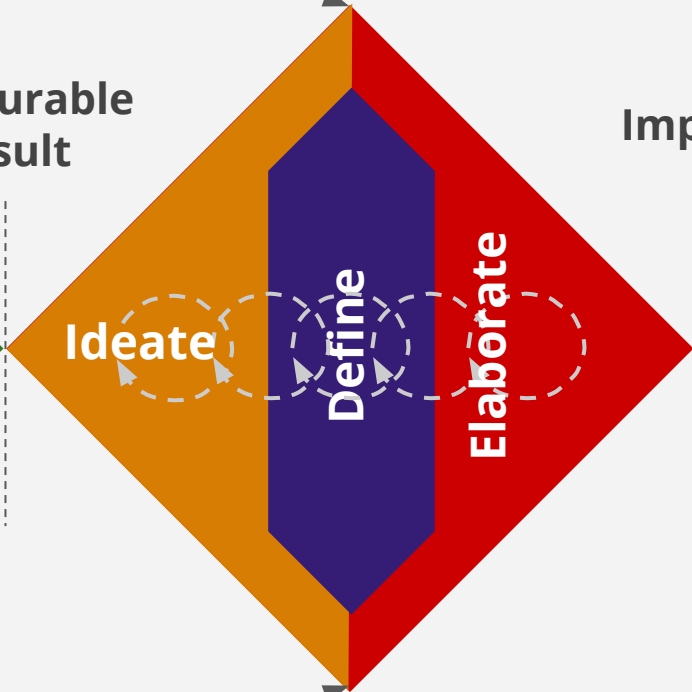


Modified Double Diamond

Awareness



Measurable result



Impact

Iterate

Iterate



5 ELEMENTS OF AN EXPERIENCE DESIGN FRAMEWORK



High-Level IA



Global components

Interaction model



Key design patterns



Primary Layouts



1. INTERACTION MODEL

Addresses

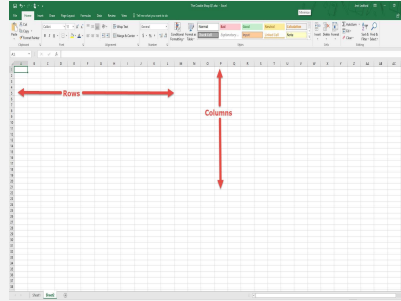
- What is the nature of the solution? What interaction style does it drive?
- What theme or metaphor does it use?
- What brand promise does it convey.
- How does it feel?



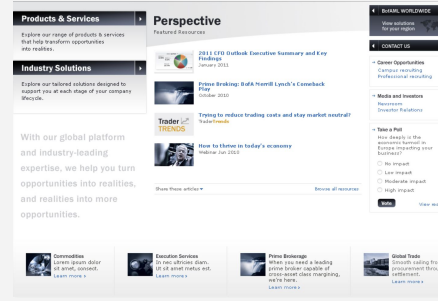
INTERACTION MODEL EXAMPLES



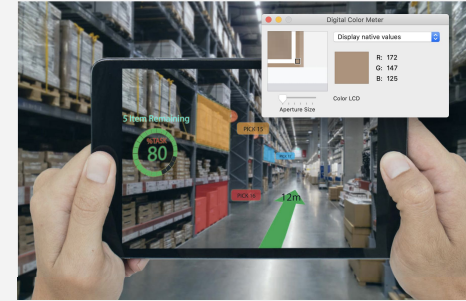
App



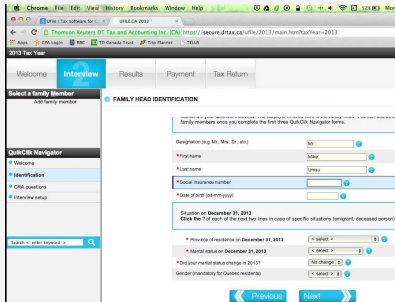
Application



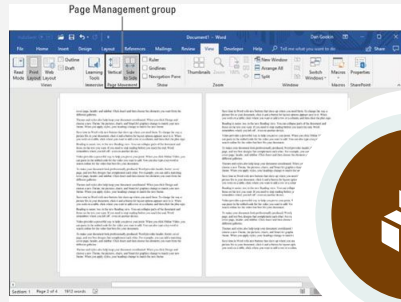
Portal/Portlets



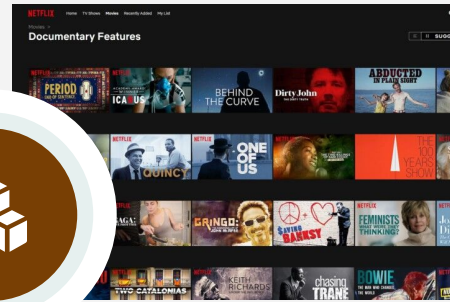
Utility



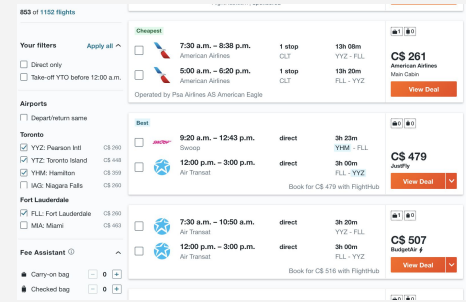
Interview



Paper doc



Browsing shelves



Faceted search



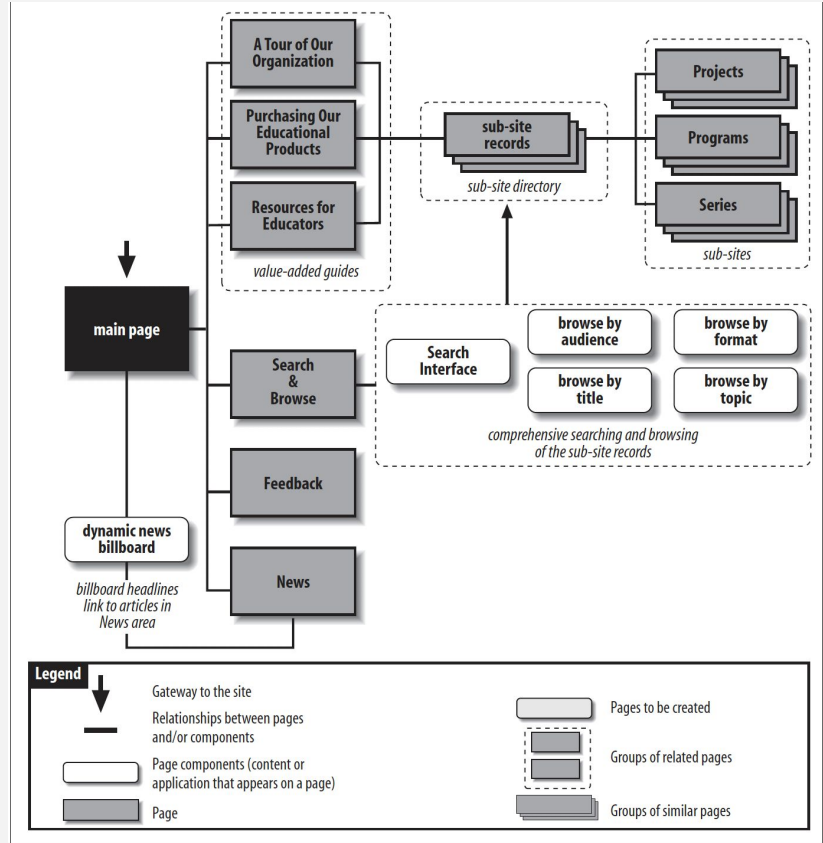
2. HIGH LEVEL IA



Addresses

- High-level structure:
 - Primary organizing concepts
 - Top-level structure of content and functionality (usually 2-3 layers)
- Supporting navigation mechanisms

HIGH-LEVEL IA EXAMPLES

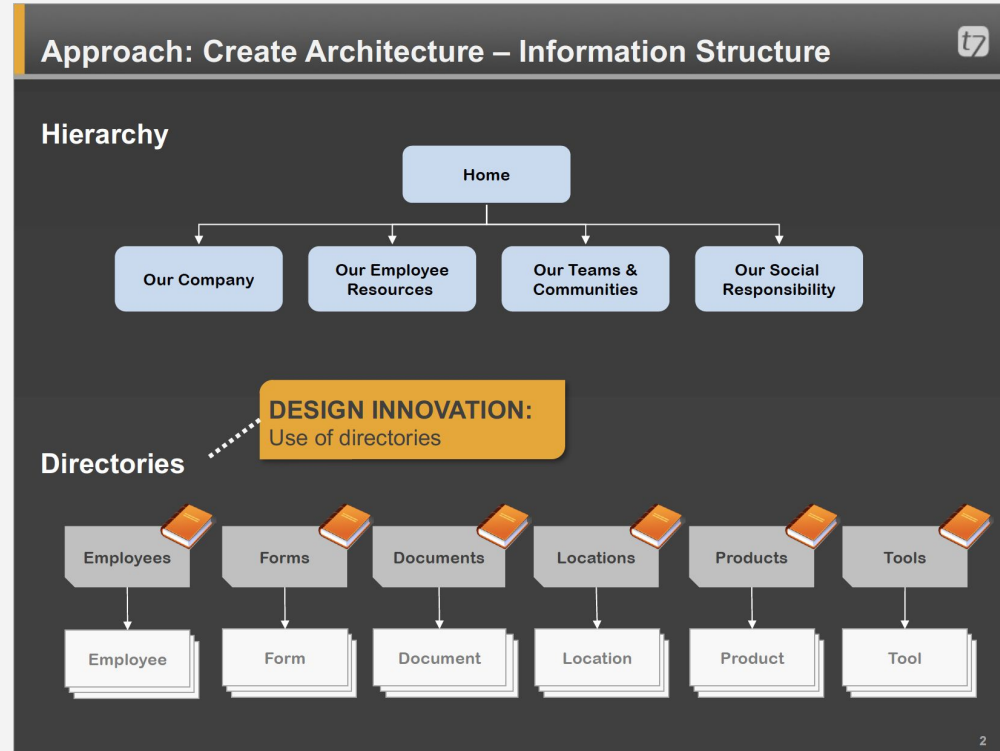


High-Level Blueprint

Source: Rosenfeld & Morville, *Information Architecture for the WWW* (2005)



HIGH-LEVEL IA EXAMPLES



High-Level Blueprint

HIGH-LEVEL IA EXAMPLES



Approach: Create Architecture – Navigational Mechanisms



- Global navigation bar for major sections
- Global directories bar
- Local navigation list within each section
- Navigational breadcrumbs
- Pop-up menu on portlets
- Global customizable shortcuts
- Global portal search controls

home our company our emp

brands forms locations policies & doc red & white pag

Business Units
Campbell Mission
CAMPBELL TODAY

Home > Our Company > Corporate Functions >
Research & Development

my shortcuts
50 Hour
Career C
CEO up
Excite
Gelco E
Preferences
Properties
Print/email/save
Minimize
Maximize
Close

Search my Campbell All Search
Advanced Search Powered by Google

9

Navigation Mechanisms

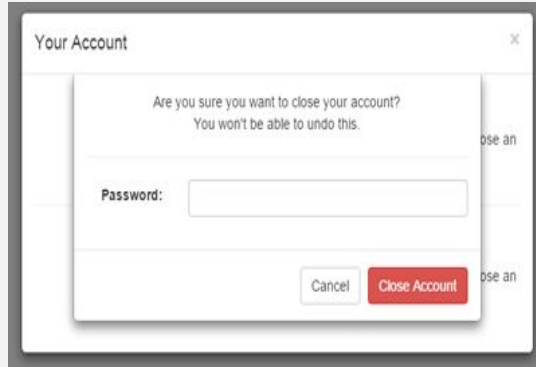
3. GLOBAL COMPONENTS

Addresses

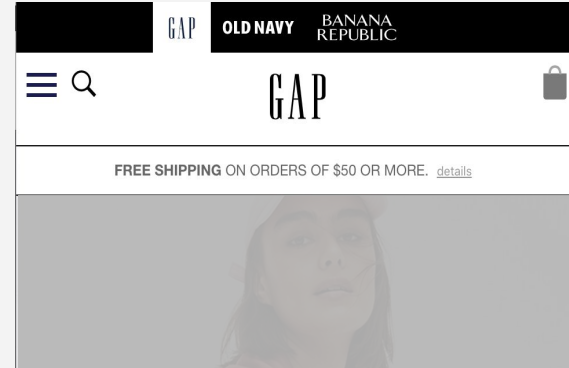
- Header and footer
- Menu bars and ribbons
- Utilities
- Search capability
- Window management



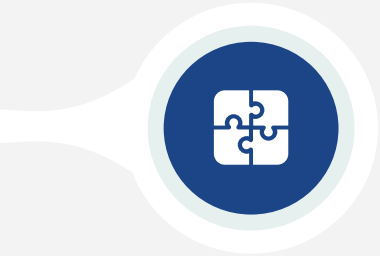
GLOBAL COMPONENTS EXAMPLES



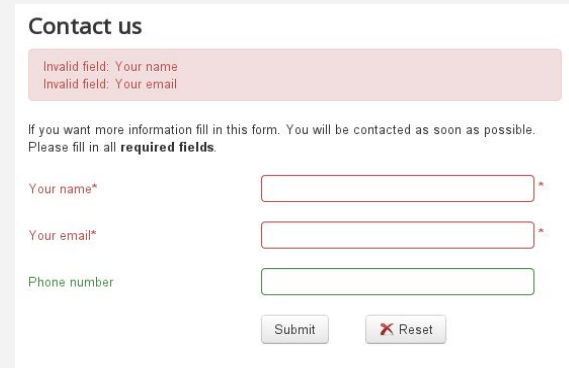
Window management



Header



Site-wide filter



Messaging architecture

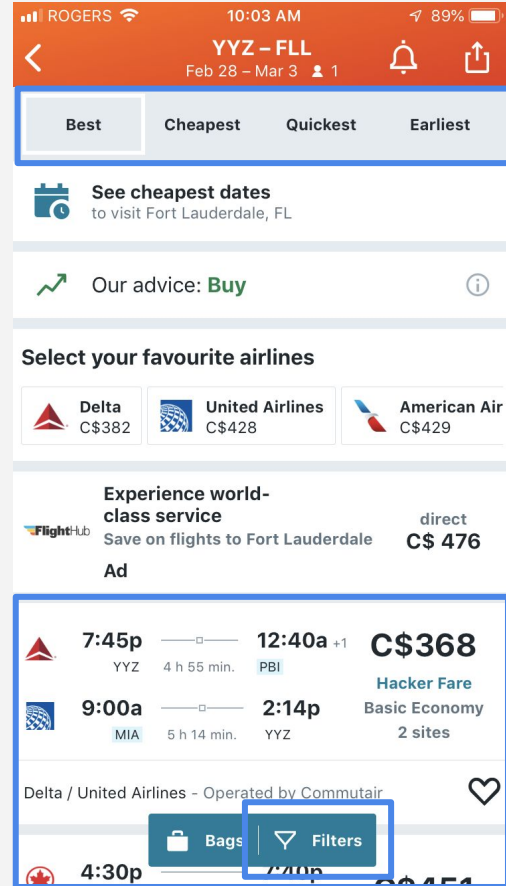
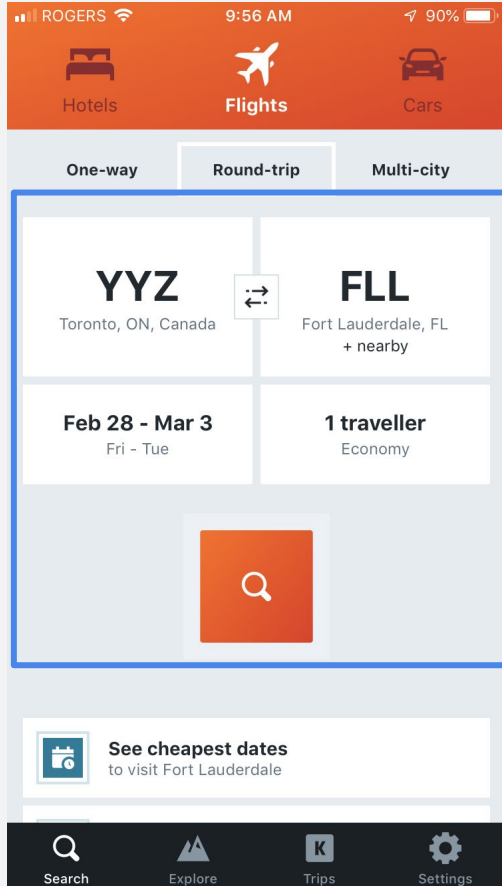
4. KEY DESIGN PATTERNS

Addresses

- The components and interactions that make your solution unique and effective. These form the core of your interactive concept.



KEY DESIGN PATTERNS EXAMPLES



KEY DESIGN PATTERNS EXAMPLES

The image shows a screenshot of the Campbell's website. At the top, there is a navigation bar featuring logos for various brands: Campbell's, V8, Huntley & Palmers, ARNOTT'S, GODIVA, Grasco, Liebig, Prego, and others. To the right of the logos, the user name "Juan Gonzalez" is displayed, along with links for "Sign off" and "Preferer".

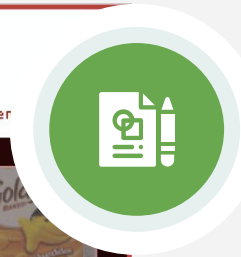
The main content area features a large image of a young girl eating an apple. To the right of the image, the text reads: **CAMPBELL TODAY**
Innovations to the IQ Maximizer
Continue to Make It Easier
for Consumers to Shop the
Soup Aisle

Below this text is a paragraph of placeholder text: "Lorem ipsum dolor sit amet, consectetur adipi scing elit. Nulla volutpat diam at neque pharetra ornare. Sed dapibus, ante in pretium sagittis. Lorem ipsum dolor sit amet, consectetur." followed by a "Read more >" link.

To the right of the main content is a grid of nine small images, including a woman's face, a family, a man in a suit, a woman laughing, a Campbell's soup can, and other scenes.

Below the main content is a search bar with the text "my Campbell" and a search button. The search bar includes a dropdown menu for "brands", "forms", "locations", "policies & docs", "red & white pages", and "tools". The search bar also includes a search input field with the text "Search My Campbell", a dropdown menu for "All My Campbell", and a "Search" button. Below the search bar, there are links for "home", "our company", "employee resources", "teams & communities", and "social responsibility".

At the bottom of the page, there are two windows: "my email" and "my news". The "my email" window shows an email from "John Dough" with the subject "Re: Email". The "my news" window shows a news article titled "Sacramento's Joedy Guidry Helps Children Develop Into 'CHAMPS'" and a snippet of text: "Lorem ipsum dolor sit amet, consecte... (Aug 10) (Google News)".



KEY DESIGN PATTERNS EXAMPLES

The screenshot shows a corporate website for Campbell's Soup. At the top, there is a navigation bar with logos for various brands: PEPPERIDGE FARM (Remember what's good.), V8, ARNOTT'S, GODIVA, Erasco, Lebitz, Prego, SunSoda, Steak 'n' Shake, Pace, DL, and Campbell's. On the right side of the navigation bar, the user name "Juan Gonzalez" is displayed, along with links for "Sign off" and "Preferen".

The main content area features a large banner for "a sleek *duet* in black and white". The banner includes an image of two cookies (one dark, one light) on a white plate. To the right of the image, the text reads: "New Product Launches", "Fall in love with the new Black & White Milano® and Amaretto Milano® cookies", and "Rich. Decadent. Seductive. Surrender to the irresistible flavor of the newest Distinctive Cookies varieties: Black & White Milano® features one chocolate and one golden cookie embracing rich chocolate, while Amaretto Milano®... Milano cookies. Visit artofthecookie.com to learn Read more >".

Below the banner is a search bar with the text "my Campbell" and a search button. The search bar includes a dropdown menu with options: "brands", "forms", "locations", "policies & docs", "red & white pages", and "tools". The search bar also contains the text "Search My Campbell", "All My Campbell", and "Search". Below the search bar, there are links for "home", "our company", "employee resources", "teams & communities", and "social responsibility".

At the bottom of the page, there are two widgets: "my email" and "my news". The "my email" widget shows an email from "John Dough" with the subject "Re: Email". The "my news" widget shows a news article titled "Sacramento's Joedy Guidry Helps Children Develop Into 'CHAMPS'" and a snippet of text: "Lorem ipsum dolor sit amet, consecte... (Aug 10) (Google News)".

A green circular icon with a white document and pencil symbol is overlaid on the right side of the page.

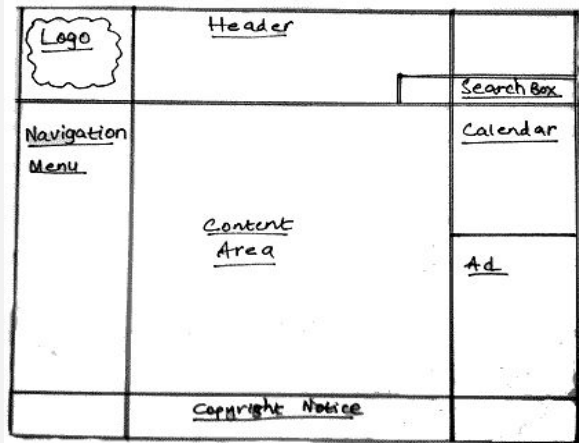
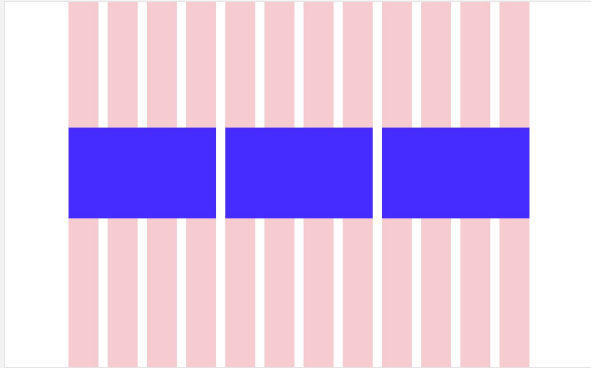
5. PRIMARY LAYOUTS

Addresses

- Form factors
- The layouts of your primary pages, templates, and views
- Responsive behaviours, such as number and positions of breakpoints, and fluid behaviour within each viewport



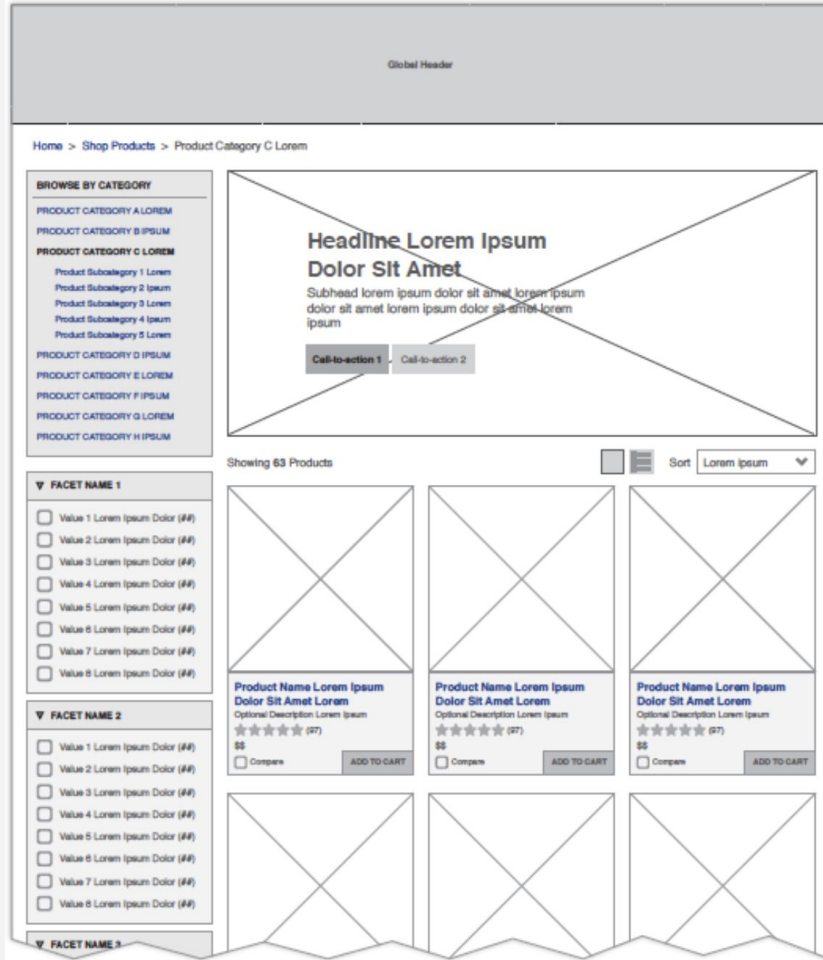
PRIMARY LAYOUTS EXAMPLES



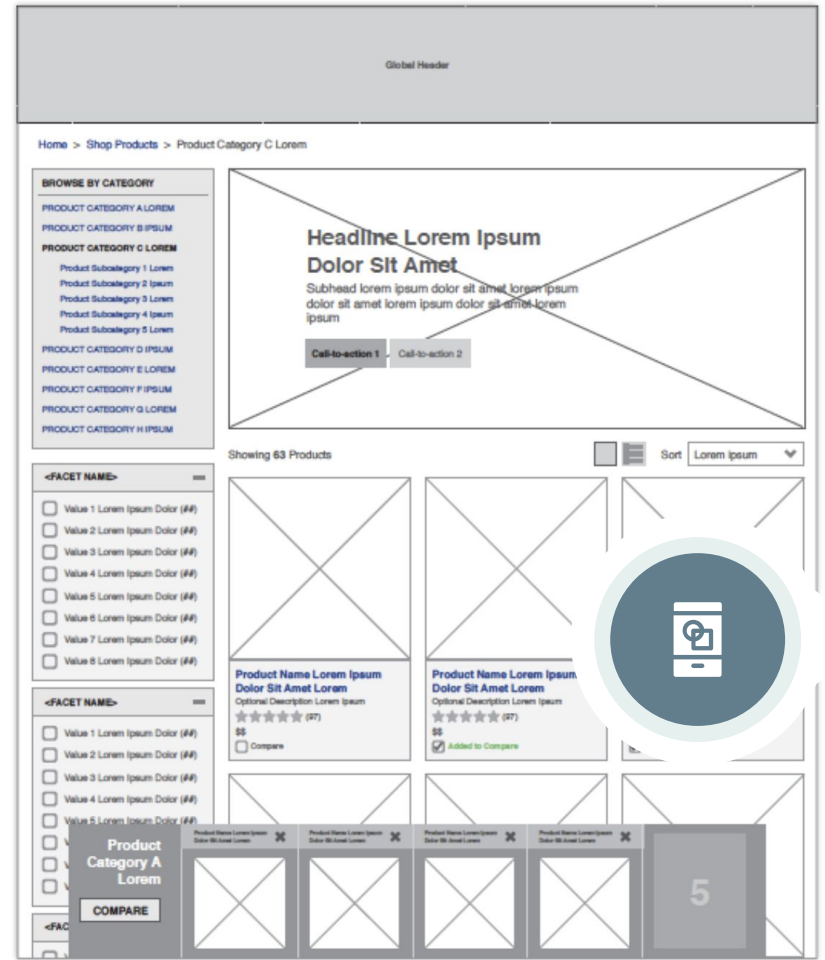
Source: Tang, C. Responsive grids and how to actually use them (Medium, 2019)



WF.1.3 Desktop Product Category Landing (top)



WF.1.10 Desktop Product Compare Tray



5 ELEMENTS OF AN EXPERIENCE DESIGN FRAMEWORK



High-Level IA



Global components

Interaction model



Key design patterns



Primary Layouts





CONTENT






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THANK YOU



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