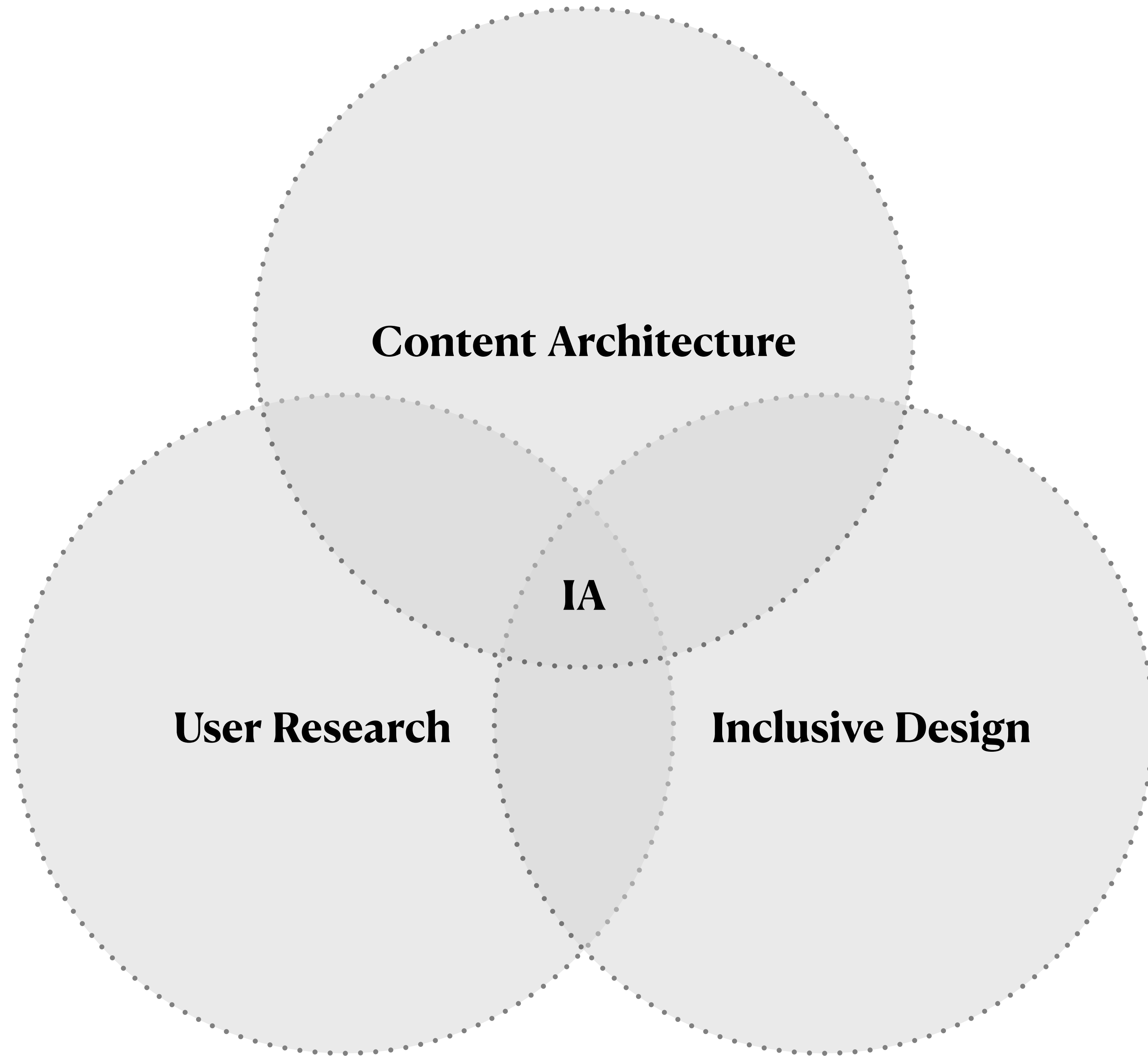


What is Object-Oriented UX?

Rik Williams, Senior Content Strategist, Government Digital Service (GDS)

rikwilliams.net/talks/ooux/

Hi, I'm Rik



Structure

IA refresher

What is OOUX?

ORCA process walk through

Benefits

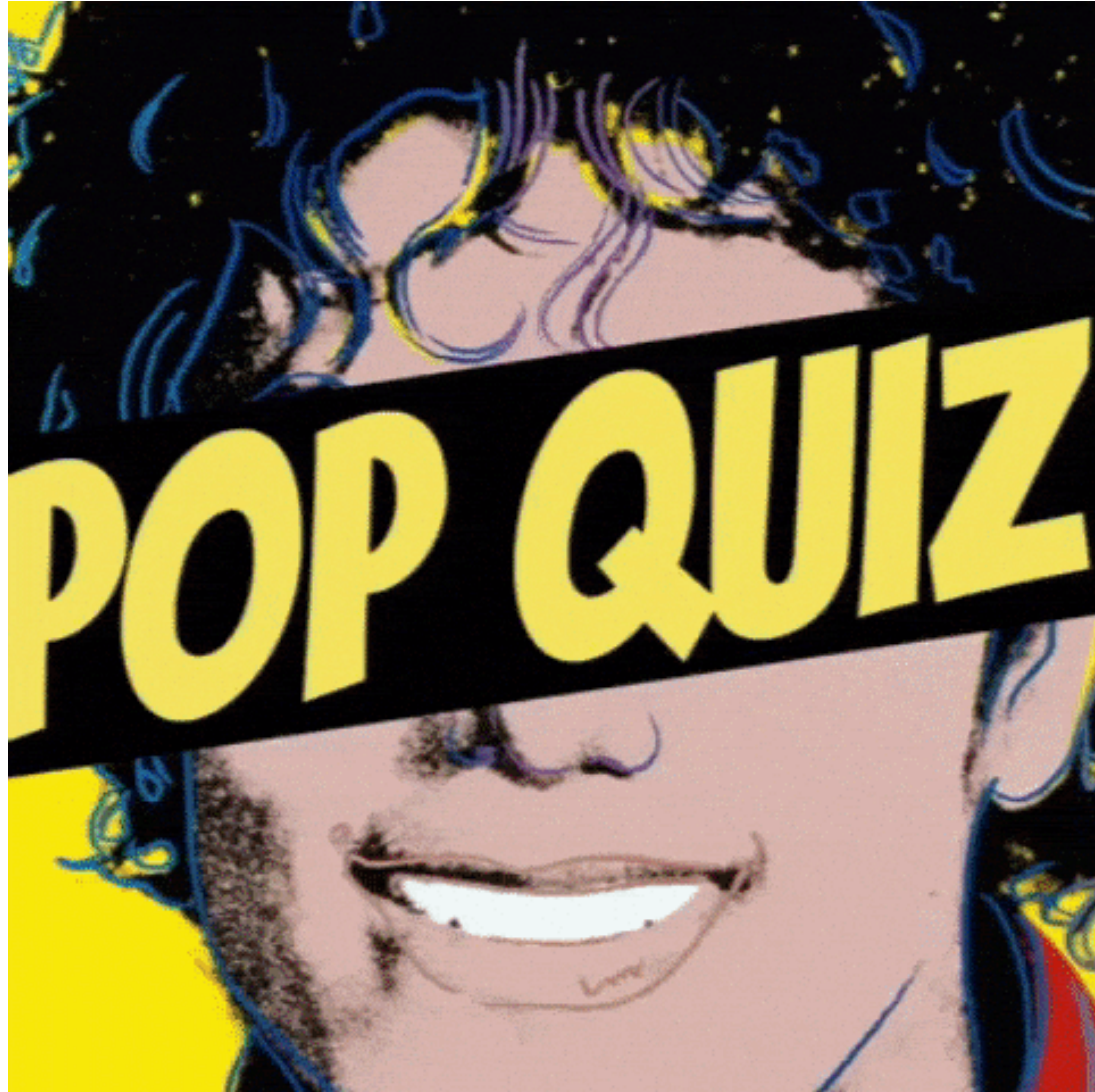
Discussion

Information Architecture refresher

“Information architecture is the practice of deciding how to arrange the parts of something to be understandable.”

IA Institute

OOUX is a philosophy and
method in information
architecture (IA)



You're in front of the donut counter in your local supermarket at 2130 in the evening. What is the information? 🧐🤔

Original Glazed® ONLY 200 kcal

Signature ring doughnut, a light and fluffy dough
with classic glaze.

CHOOSE ANY 3 for £5.65 or £1.65 each

CORE-01SEL-MO-001a

⚠ ALLERGENS

Contains: Wheat, Egg and Milk.

Not suitable for Oat, Nut, Peanut, and Soya
allergy sufferers due to manufacturing methods.



Chocolate Sprinkles 262 kcal

Our signature ring doughnut hand dipped in chocolate icing and colourful sprinkles.

CHOOSE ANY 3 for £5.65 or £1.75 each

⚠ ALLERGENS

Contains: Wheat, Egg, Milk and Soya.

Not suitable for Oat, Nut and Peanut allergy
sufferers due to manufacturing methods.

30119 SELMOCAI-001b



SALTED Caramel DELIGHT 325 kcal

Hand dipped in milk chocolate, made with
Salted Caramel Matchmaker® nibs and a Matchmaker®.

CHOOSE ANY 3 for £5.65 or £2.10 each

new

⚠ ALLERGENS

Contains: Wheat, Egg, Milk and Soya.

Not suitable for Oat, Nut and Peanut allergy
sufferers due to manufacturing methods.



ORIGINAL Filled Classic Kreme 308 kcal

Our signature Original Glazed doughnut filled with our smooth Kreme filling.

CHOOSE ANY 3 for £5.65 or £2.10 each

⚠ ALLERGENS

Contains: Wheat, Egg, Milk and Soya.

Not suitable for Oat, Nut and Peanut allergy
sufferers due to manufacturing methods.

Information \neq Content \neq Data

Information is the meaning
extracted from a particular
sequence of things

Information is what a player
understands to be true based
what they experience

Content is whatever is being
arranged or sequenced for a
player to interpret

**Data are the facts, observations
and questions that a player has
about a game**

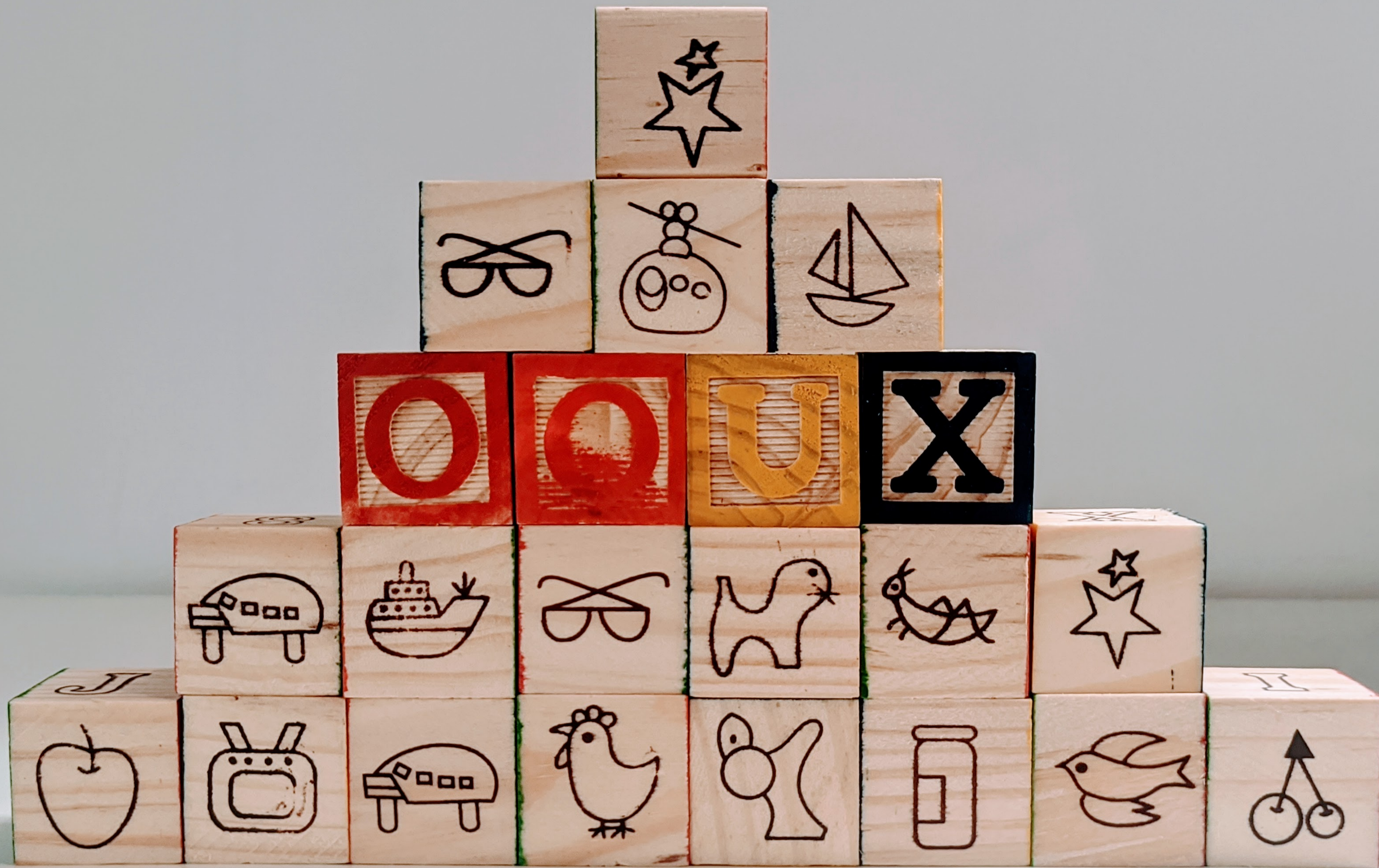
You cannot create information. Instead
you make content that is able to be
perceived in a way that you hope will be
based on what players know

Without thinking about how your content is perceived and the data players might have available, you might not be creating the information intended

“If you’ve ever tried to [play a game] and thought, ‘where am I supposed to go next?’ or ‘this doesn’t make any sense’, you are encountering an issue with an information architecture.”

IA Institute

What is OOUX?



OOUX deliberately aligns software to a user's real-world **mental model of concrete, defined, objects**, so that abstract digital worlds can be as naturally intuitive as the physical world we evolved in

OOUX is a philosophy for designing digital systems that respects the fact that **people think in objects** and need consistent, recognisable objects to understand an environment or product

A mental model is an explanation of
someone's thought process about
how something works in the real world

Mental models play a major role
in cognition, reasoning and
decision-making

Mental models are an overarching term for
any sort of concept, framework, or
worldview that you carry around in your
mind



Source: <https://www.flickr.com/photos/rik-williams/>

“‘Object oriented’ in this sense has nothing to do with whether object-oriented programming is used. Instead, it means that the interface as perceived by the user is aligned to the their domain objects rather than to the computer software paradigms.”

Tom Dayton

Traditionally, digital product teams
breakdown complexity by the **verbs**
— feature, user story, task flow

However, action based architectures
can easily become disjointed,
confusing and fragmentary

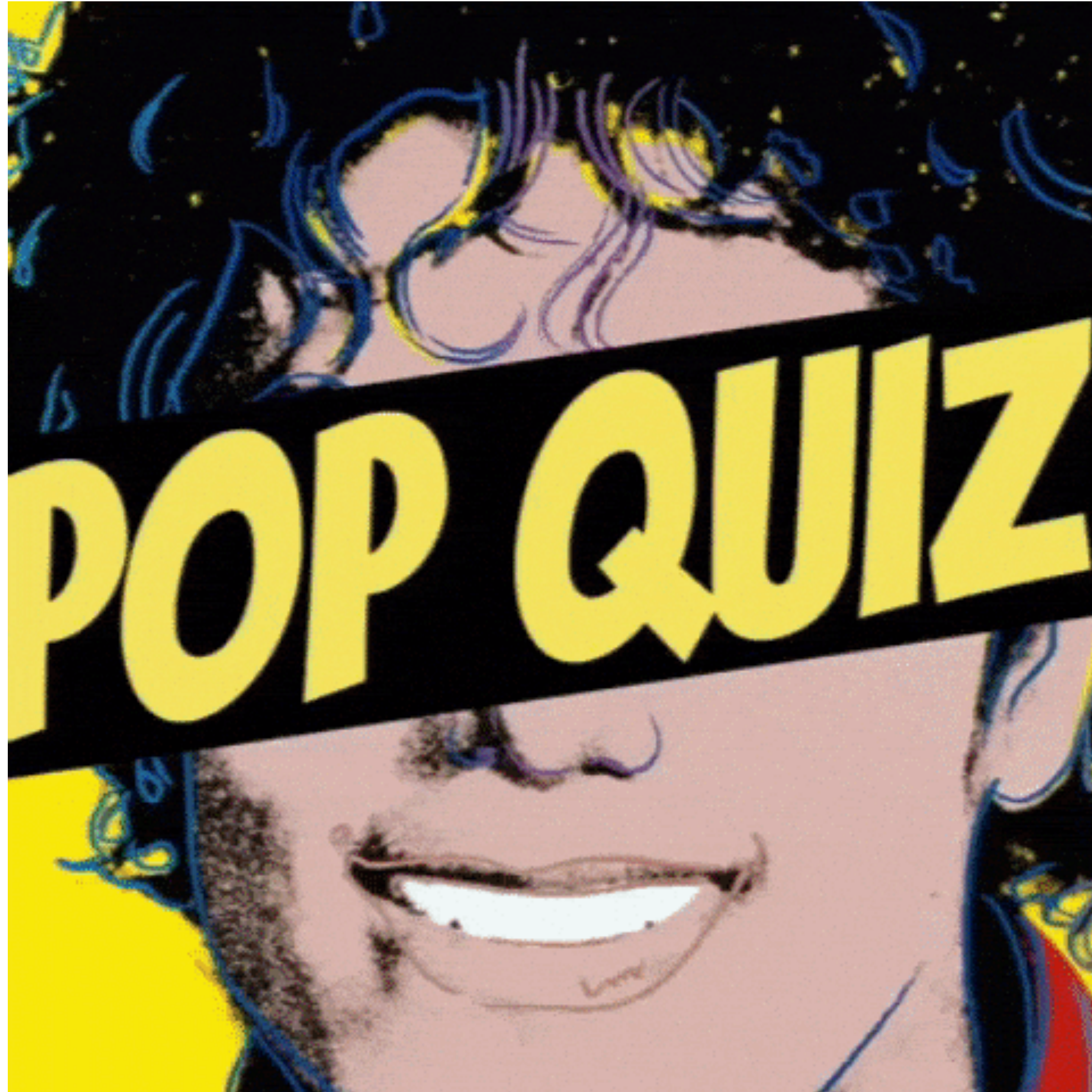
OOUX breaks down complexity by
nouns — the tangible things that naturally
make up our real and digital worlds

“Object-based thinking is part of human nature”

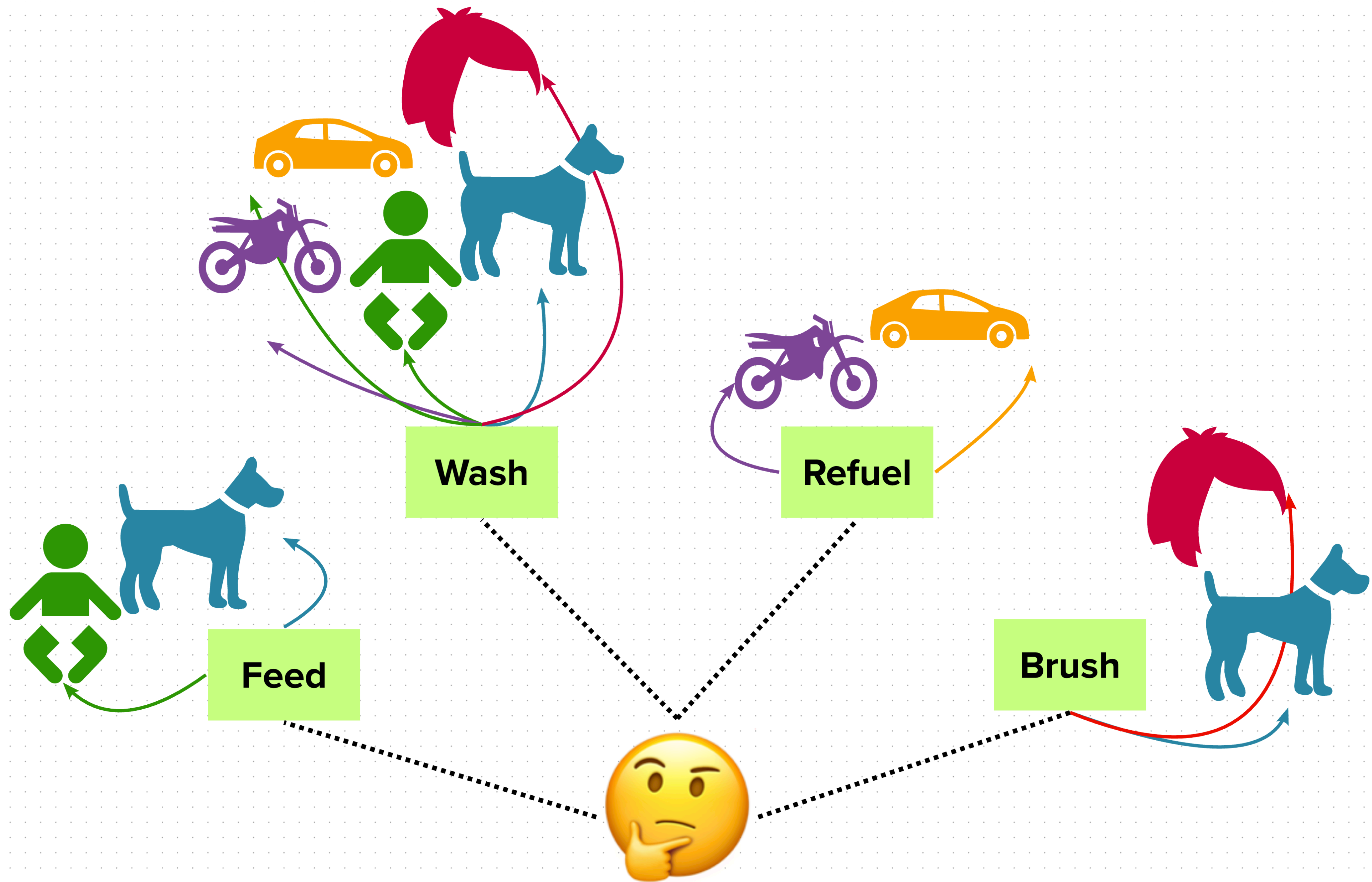
Everyl Yankee

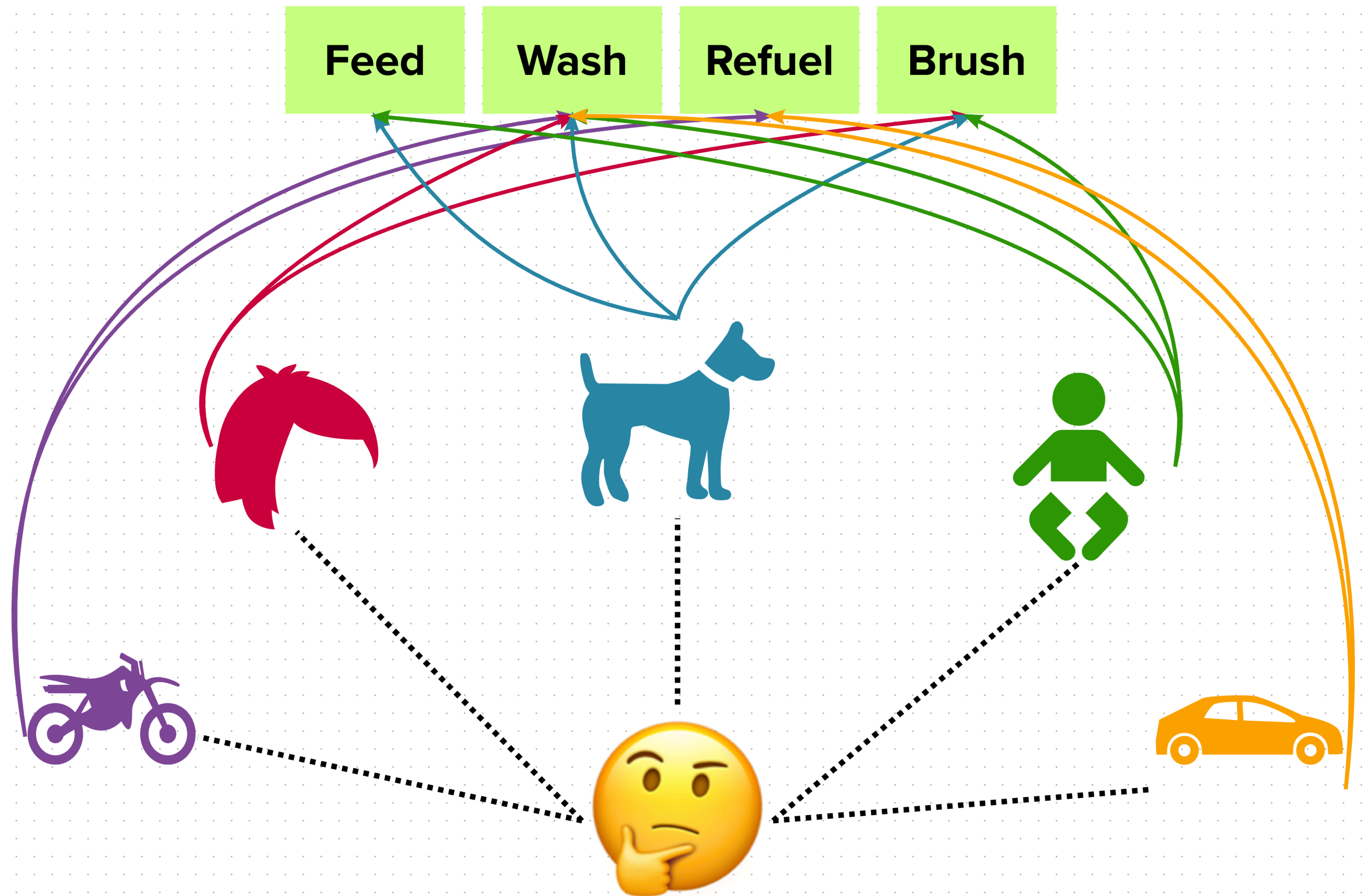
**“Humans think in objects.
Users are human.
And so are you.”**

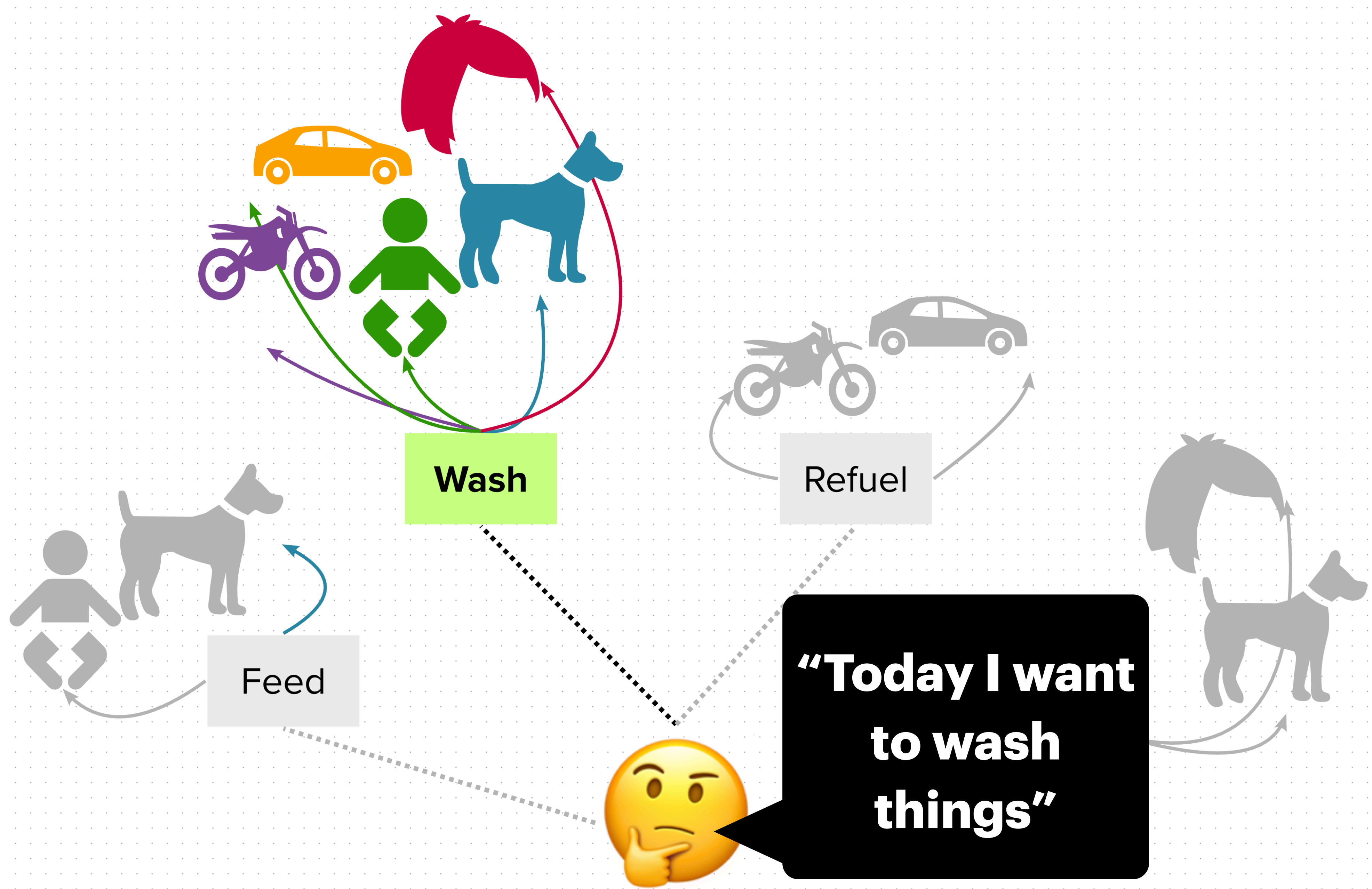
Sophia Prater



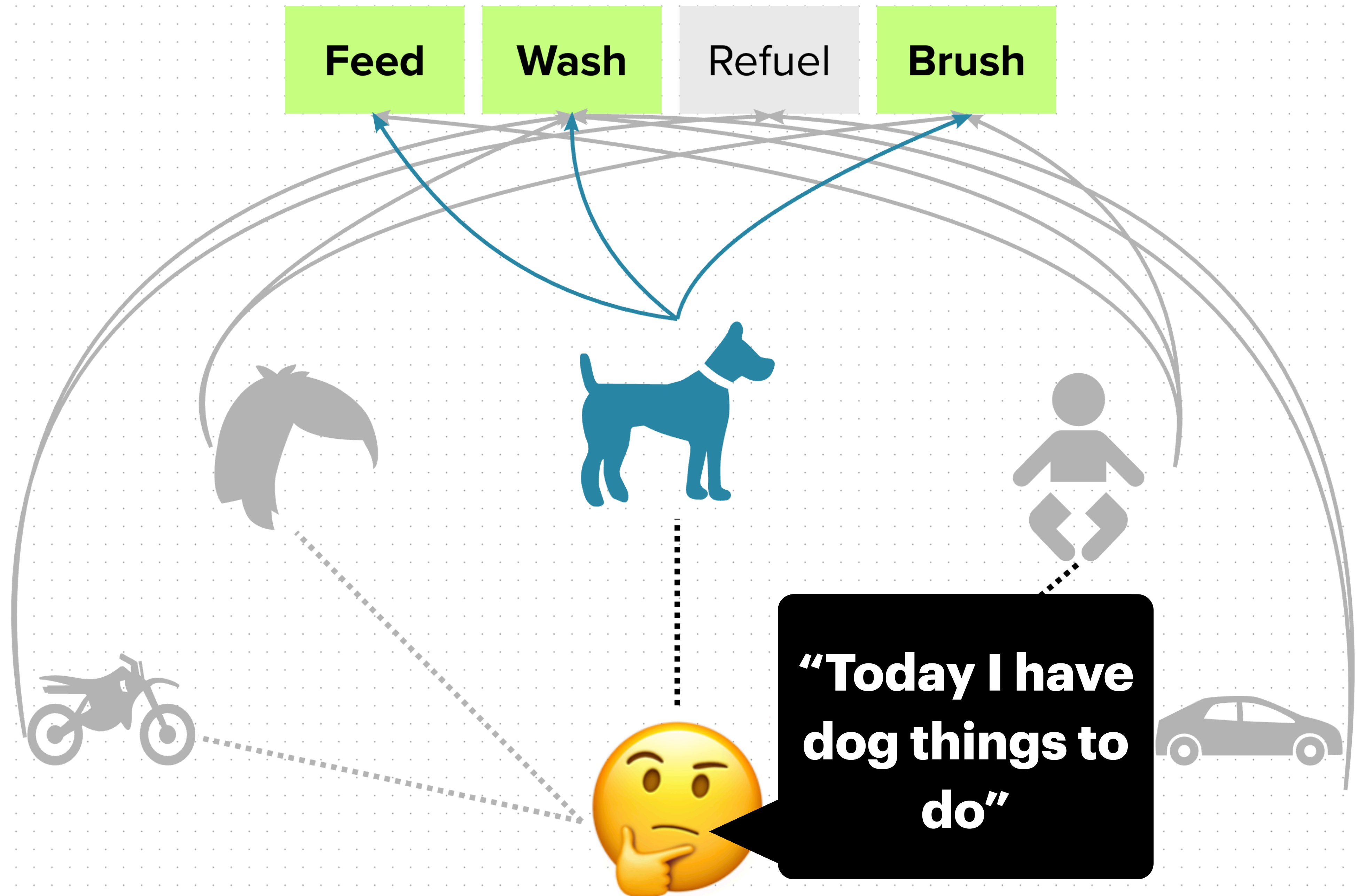
When a user wakes up in the morning and starts to organise the day, which mental model is more likely? 🧐🤔







verb-noun thinking

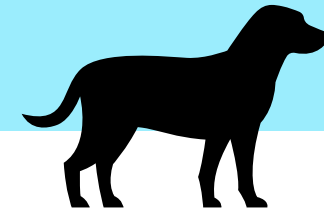


Noun-verb thinking

“Showing users things they can recognise improves usability over needing to recall items from scratch because the extra context helps users retrieve information from memory.”

Raluca Budiu

Dog



Cut

Style

Wash

Colour

Brush



Hair

noun-verb thinking

In OO, navigation is centred
around **objects** — nouns, *not*
verbs

Objects are *always* the primary
representations in the interface

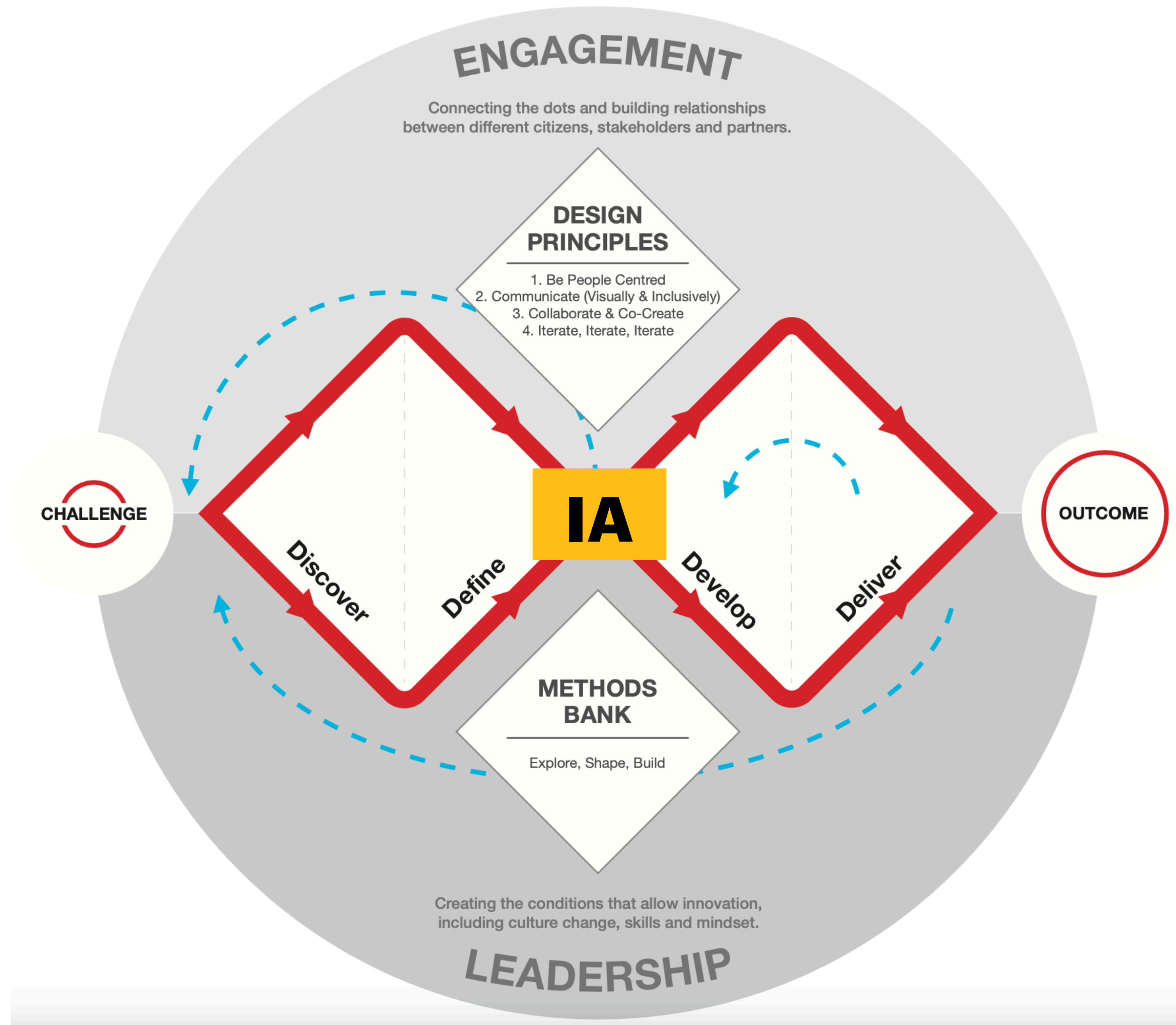
**Actions (verbs) performed on
the objects comprise the tasks**

**Tasks are *secondarily*
represented by actions on
objects**

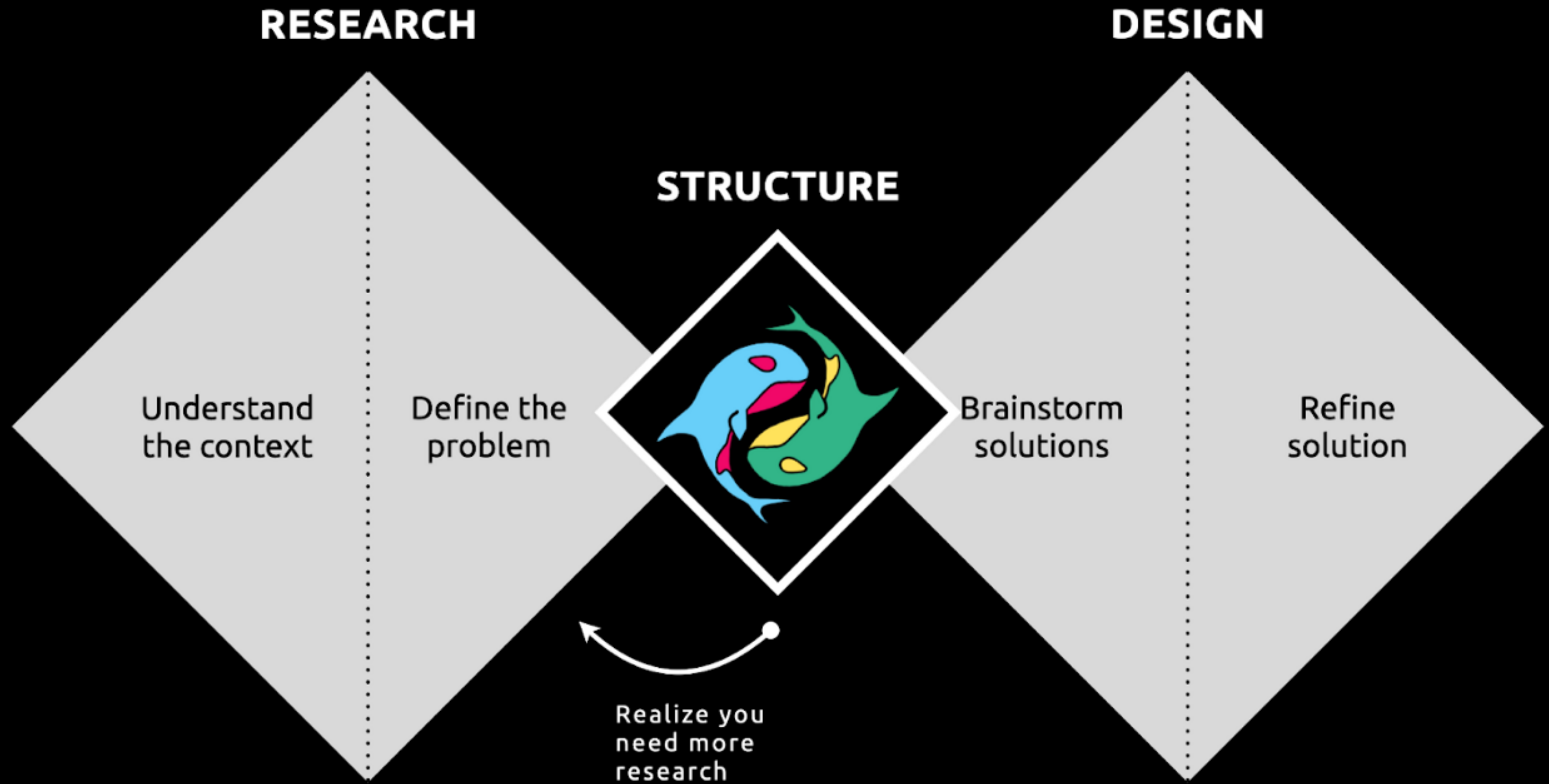
“When users enter a digital environment you designed, you’ll want them to easily be able to answer the simple questions: “What are the things here? Where are the objects? How do they relate to each other? How do they relate to me? What can I do to them?”

Sophia Prater

OOUX is a piece of your existing
process (not a new process)



The Triple Diamond



STRUCTURE

RESEARCH

Understand
the context

Define the
problem

ORCA Rounds

Objects
Relationships
Calls-to-Action
Attributes



Discovery

Requirements

Prioritization

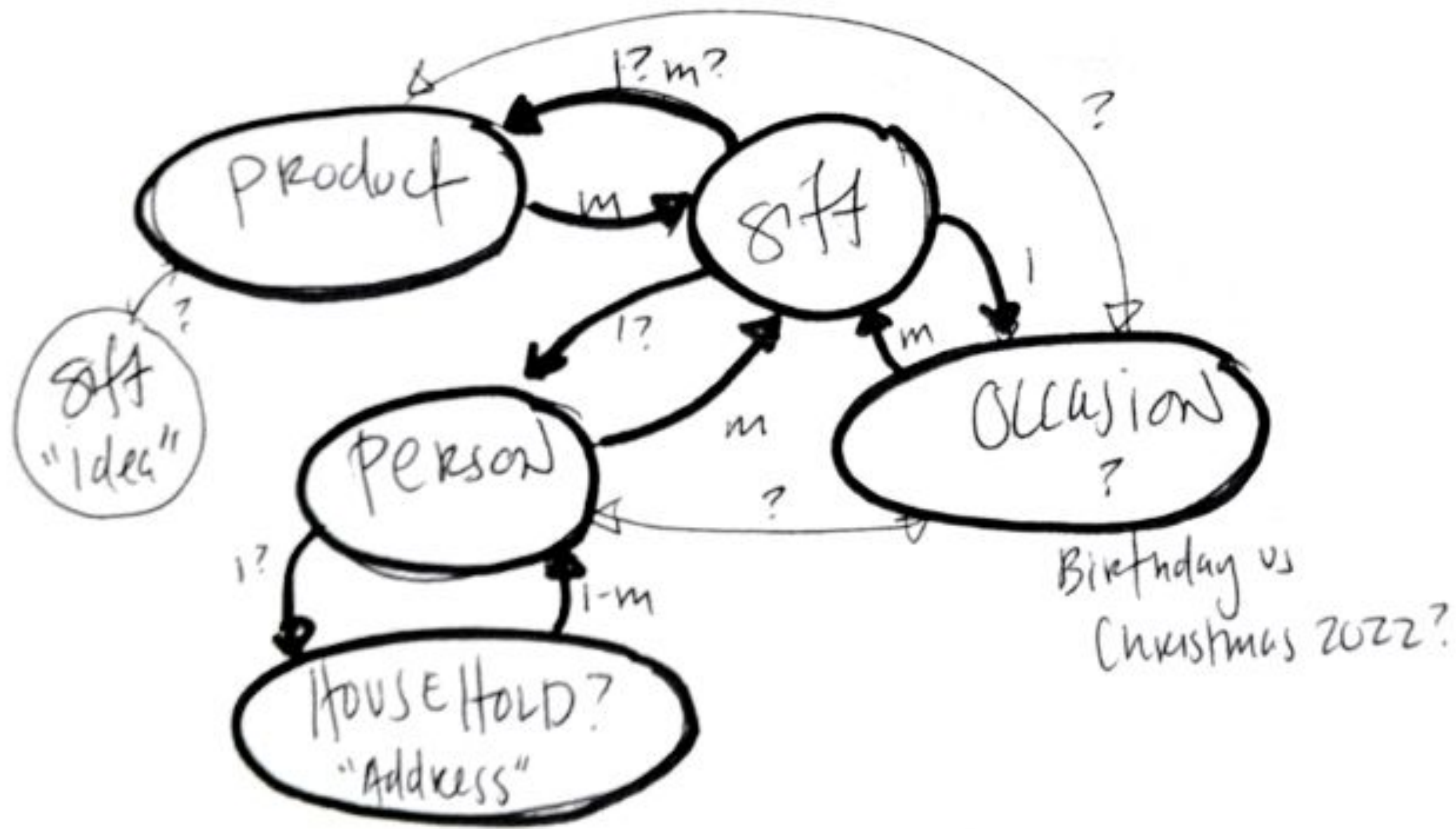
Representation

DESIGN

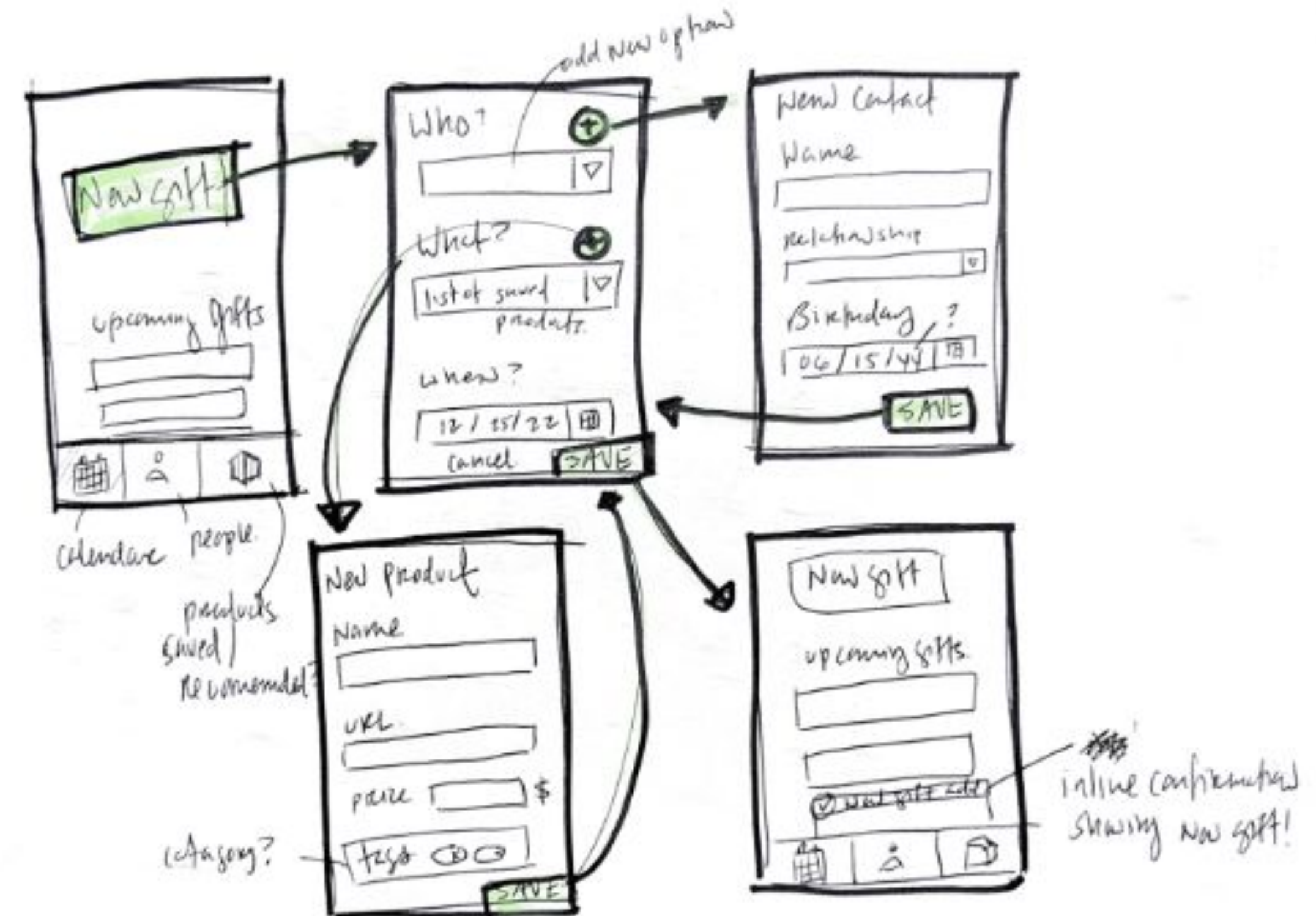
Brainstorm
solutions

Refine
solution

START HERE.



NOT HERE.



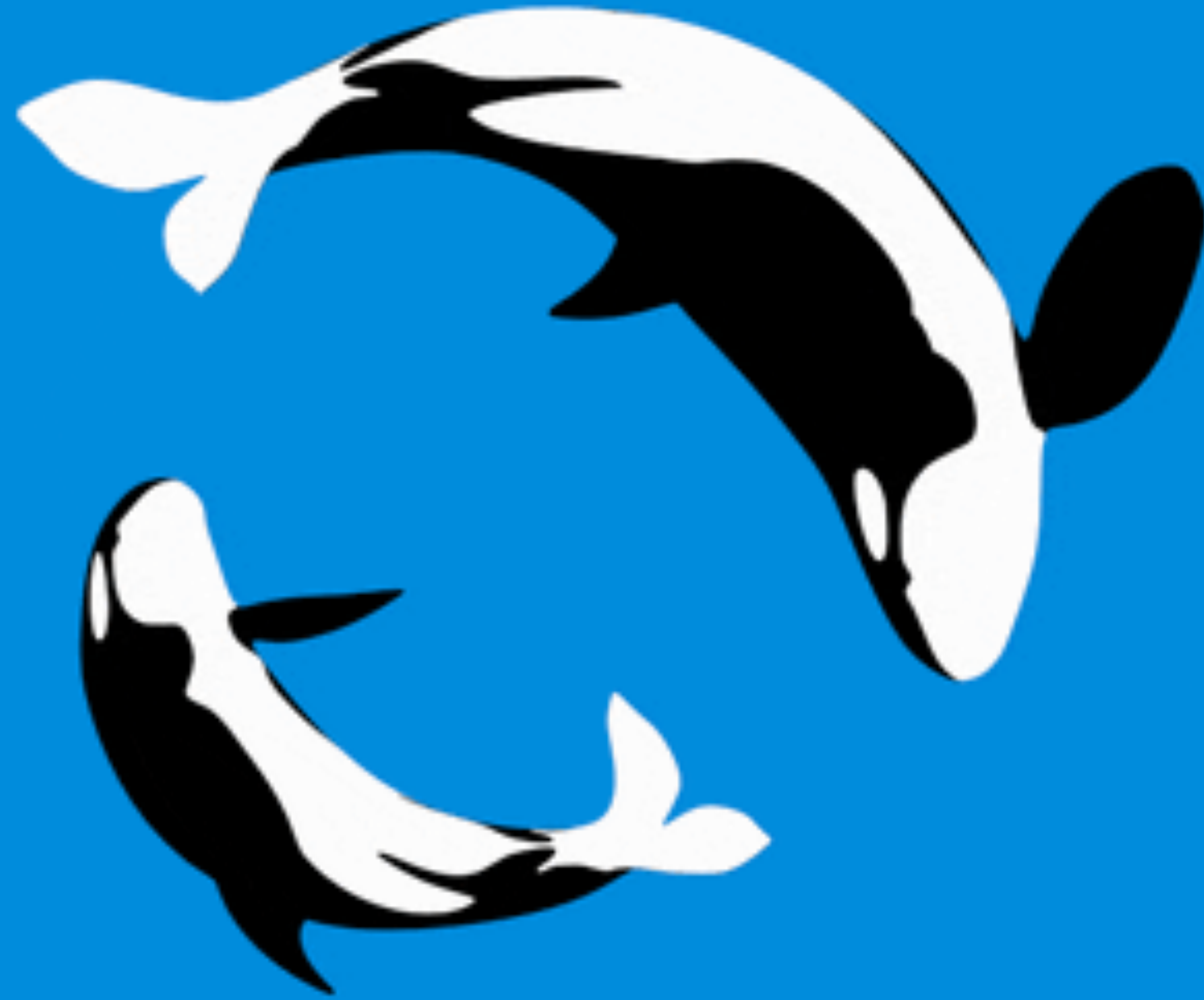
**“OOUX takes user research insights and
synthesises them into structure”**

Sophia Prater

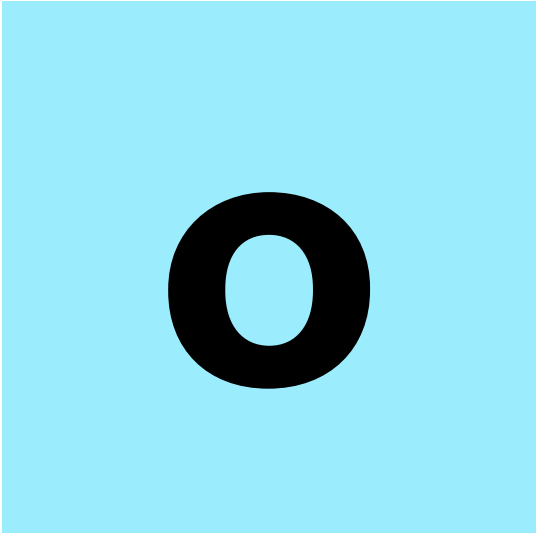
“Well-defined leads to well-designed.”

Lindsay Eryn Sutton

**ORCA, a framework to
practise OOUX**



OOUX seeks to answer the following questions before interaction design/development:



O

What are the **Objects** in the users' mental model?



R

What are the objects **Relationships** to each other?



C

What **Calls-to-action** do objects offer users?



A

What are the **Attributes** that make up the objects?

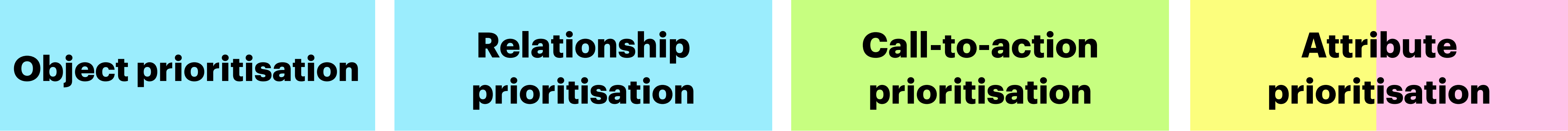
Round 1: **Discovery (uncovering complexity)**



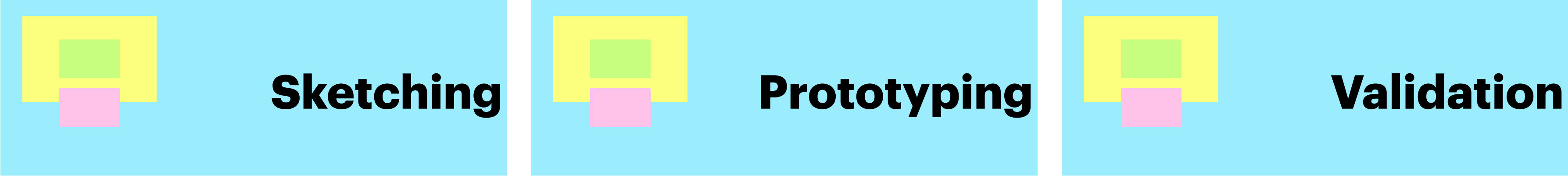
Round 2: **Requirements (untangling complexity)**



Round 3: **Prioritisation (for users', for the business)**



Round 4: **Representation (sketching basic interfaces and interactions)**



“The more complex the environment, the more OOUX brings clarity.”

Sophia Prater

“OOUX is a process to get project questions from the future so that there are fewer surprises later in a process.”

Sophia Prater

“It’s like IA and Business Analysis had a genius baby and UX raised it. That’s OOUX.”

Sophia Prater

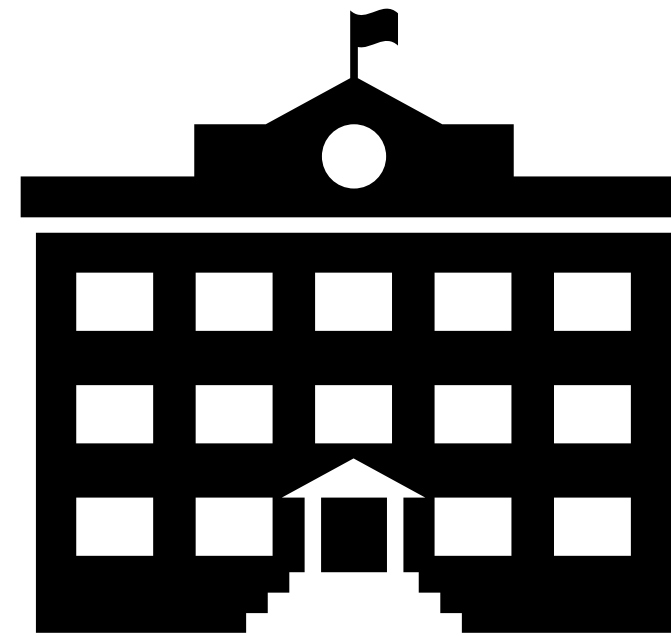
Working with Objects and ORCA

Objects

the tangible things that make up the users' mental model and/or the business process model

Think...

- People
- Places
- Content types
- Products
- Services
- Things
- ...



University

Course

Expert

Subject

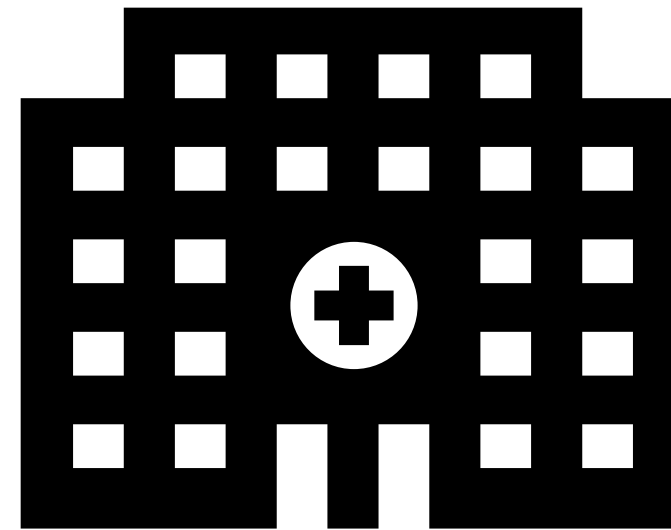
School

Paper

Project

Building

News



Hospital

Condition

Treatment

Consultant

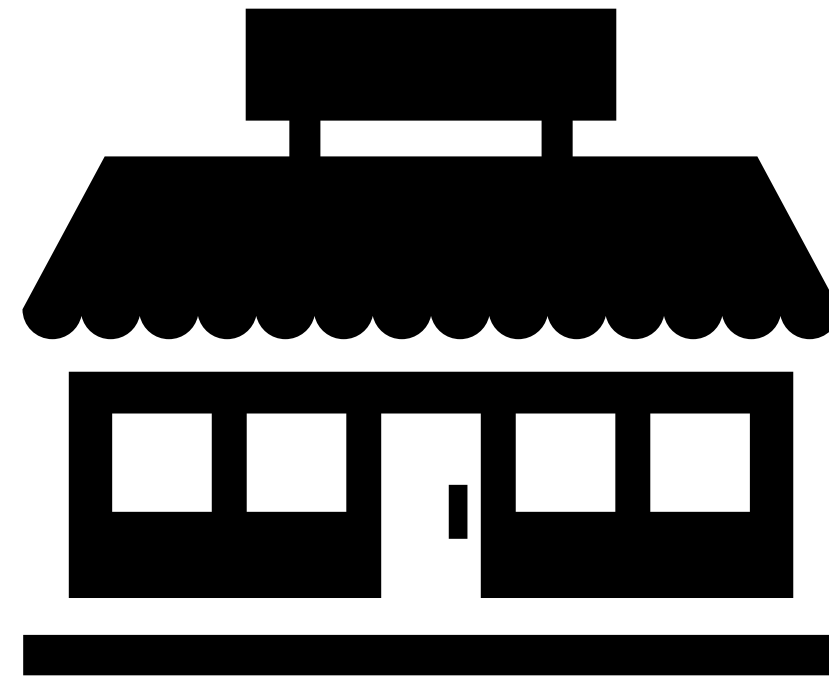
Location

**Appoint-
ment**

**Research
Project**

**Training
Course**

**Press
Release**



Shop

Shop

Product

Seller

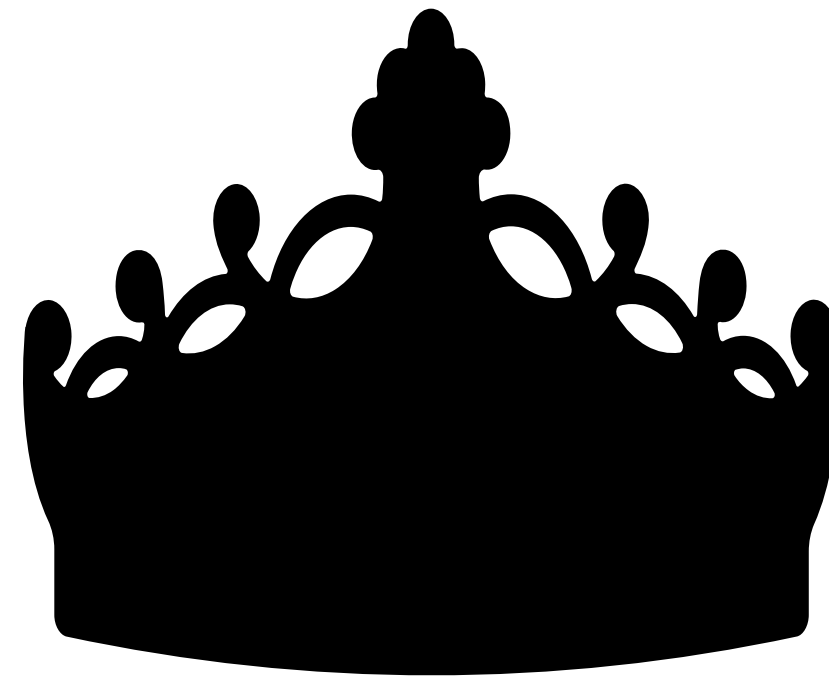
Buyer

Review

Collection

Blog

Policy



Government

Minister

Statistic

Decision

**Press
Release**

Dept.

Report

Guide

**Case
Study**



Broadcaster (BBC Food)

Recipe

Chef

Show

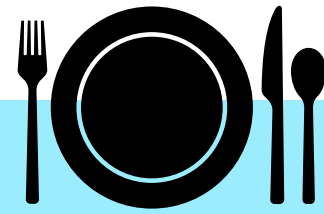
Ingredient

Occasion

Diet

Technique

Story

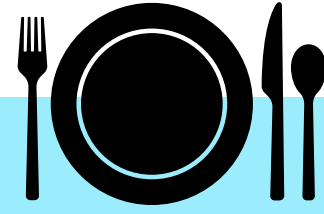


Recipe

Tangible

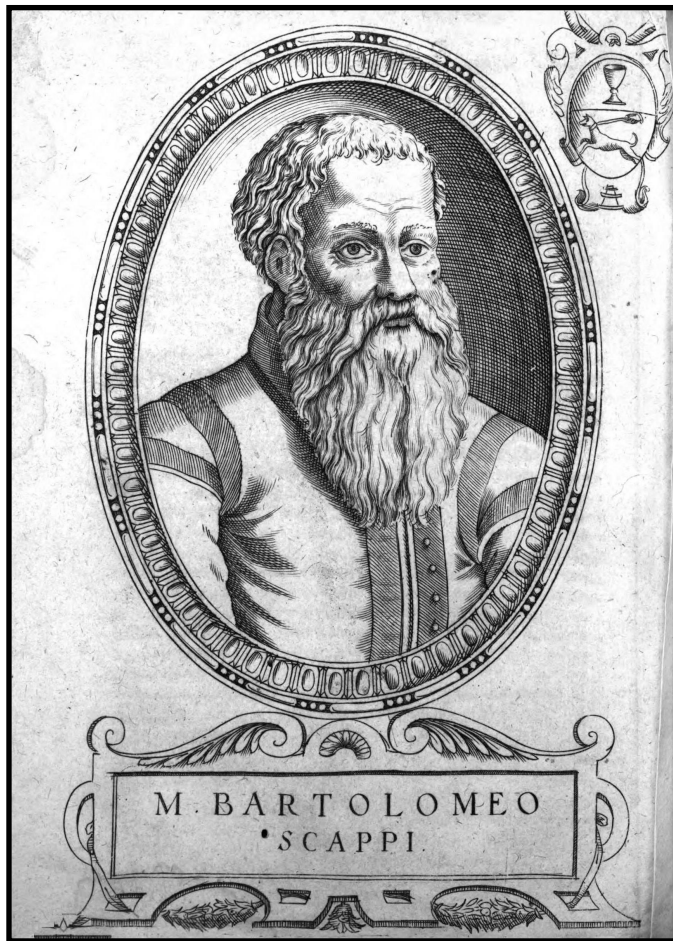
Agnostic

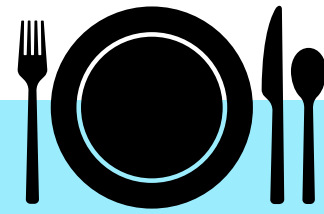
Durable



Recipe

inclusive, agnostic, durable, future-proof





Recipe

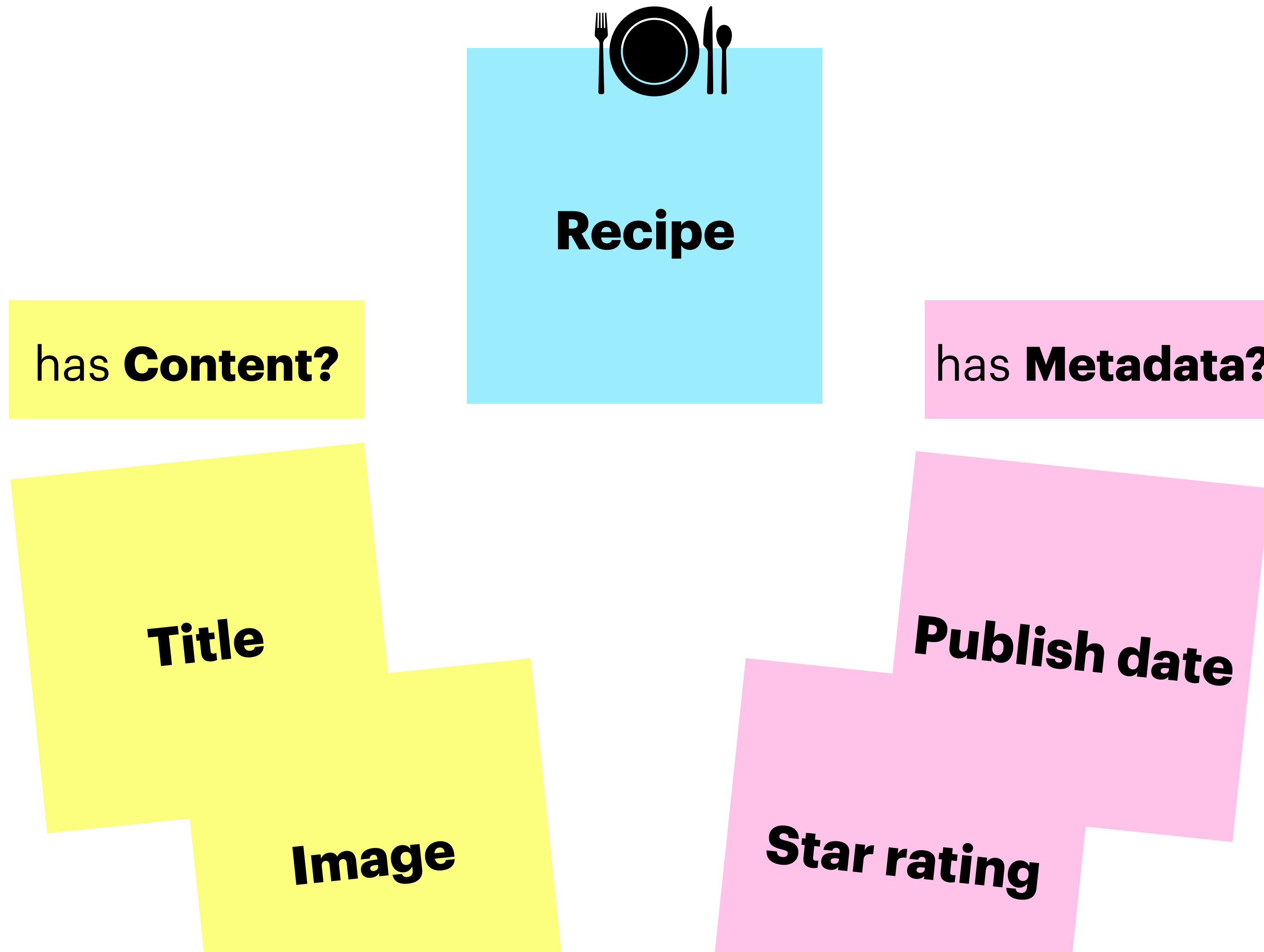
Structure

Instances

Purpose

Structure

does a proto-Object have content (title, image, video) and/or metadata (ID, dates, rating)?



Instances

does a proto-Object have many instances in the system, or is it a unique/bespoke design?



Object **Stencil**

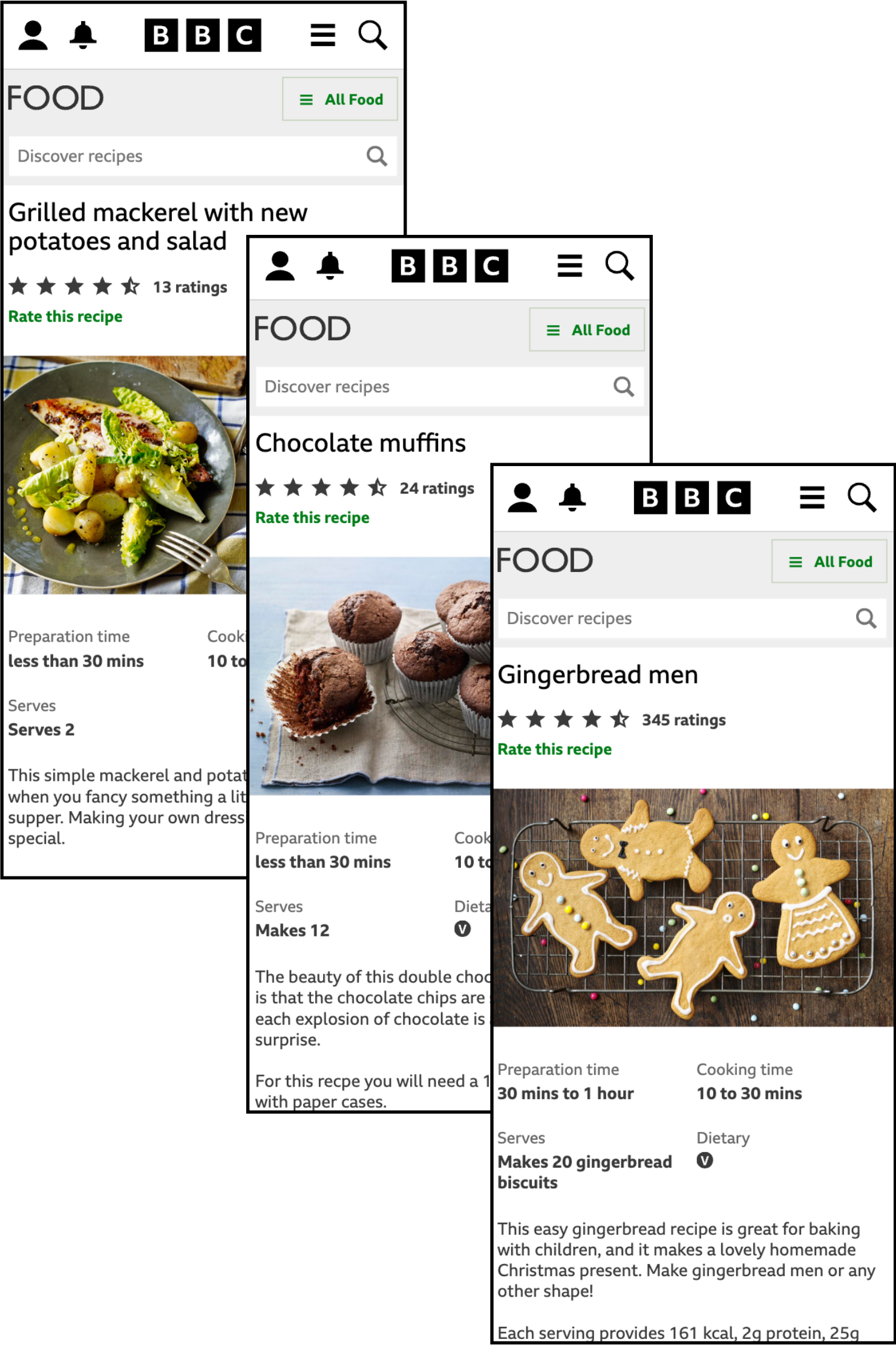


Object **Instances**

Object **Stencil**



Object **Instances**



“People don't care about the containers. They care about the things they contain.”

Mike Atherton and Carrie Hane



School



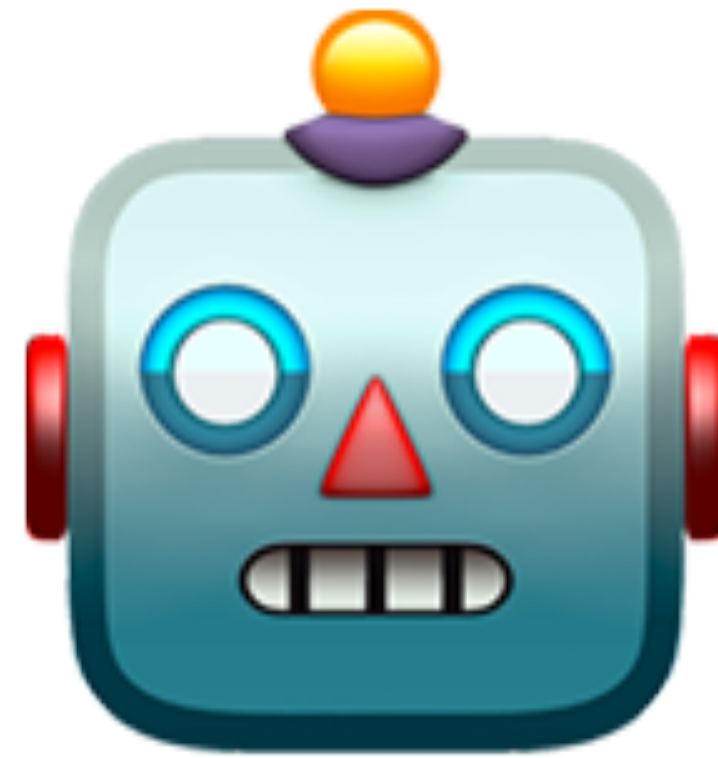
University



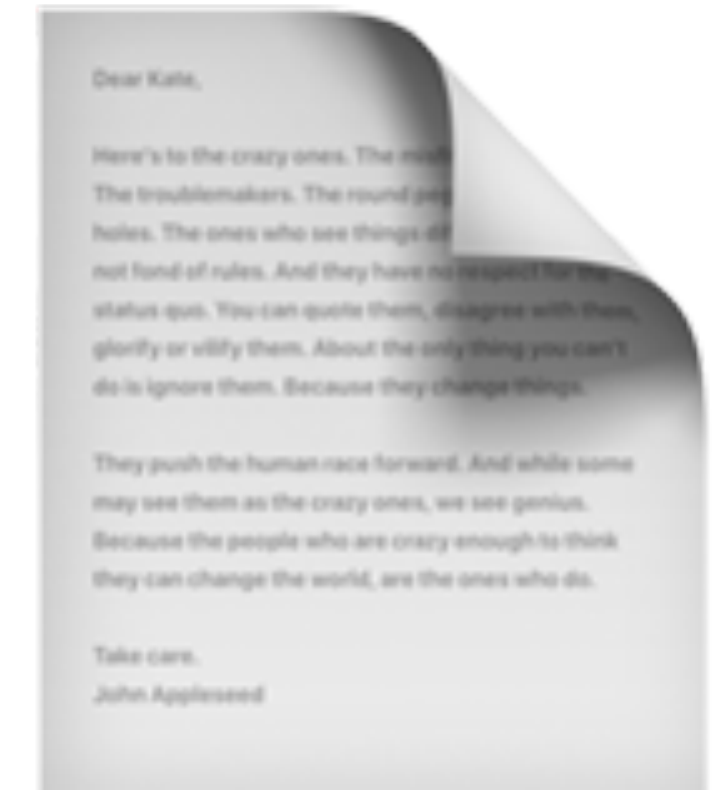
Pub



Screen



Machine



Print

Purpose

does the object have real/valid actions/tasks a user would want to take?

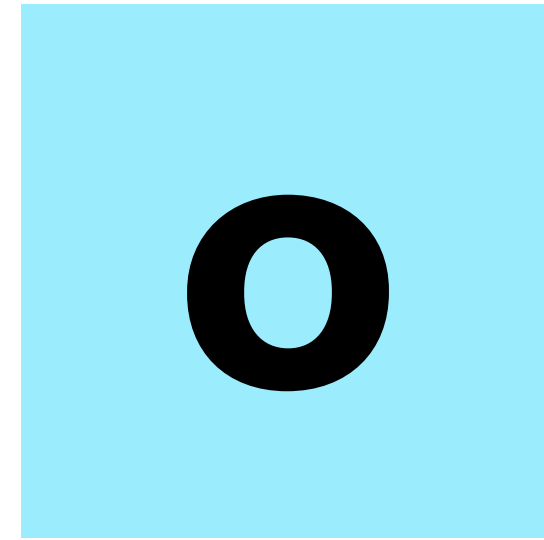
“I want to be able to make a copy of the **Recipe** for my recipe book.”

“I want to know how to properly prepare an **Ingredient**.”

“I want to know how popular a **Recipe** is before I choose it.”

“Structuring content within a well-defined content model makes content scalable, reusable, adaptable, and measurable.”

Maxwell Hoffmann



Objects

Object Discovery

4 activities to find and define proto-Objects

1. Noun foraging
2. Object Consolidation
3. Object Instancing
4. Object Lists

“Noun foraging: the process of **finding nouns in content**, based on both its definition and its context.”

Me

Noun foraging for BBC Food

Things: **Object**

Enabling People to find and use recipes created for BBC programmes.

People can:

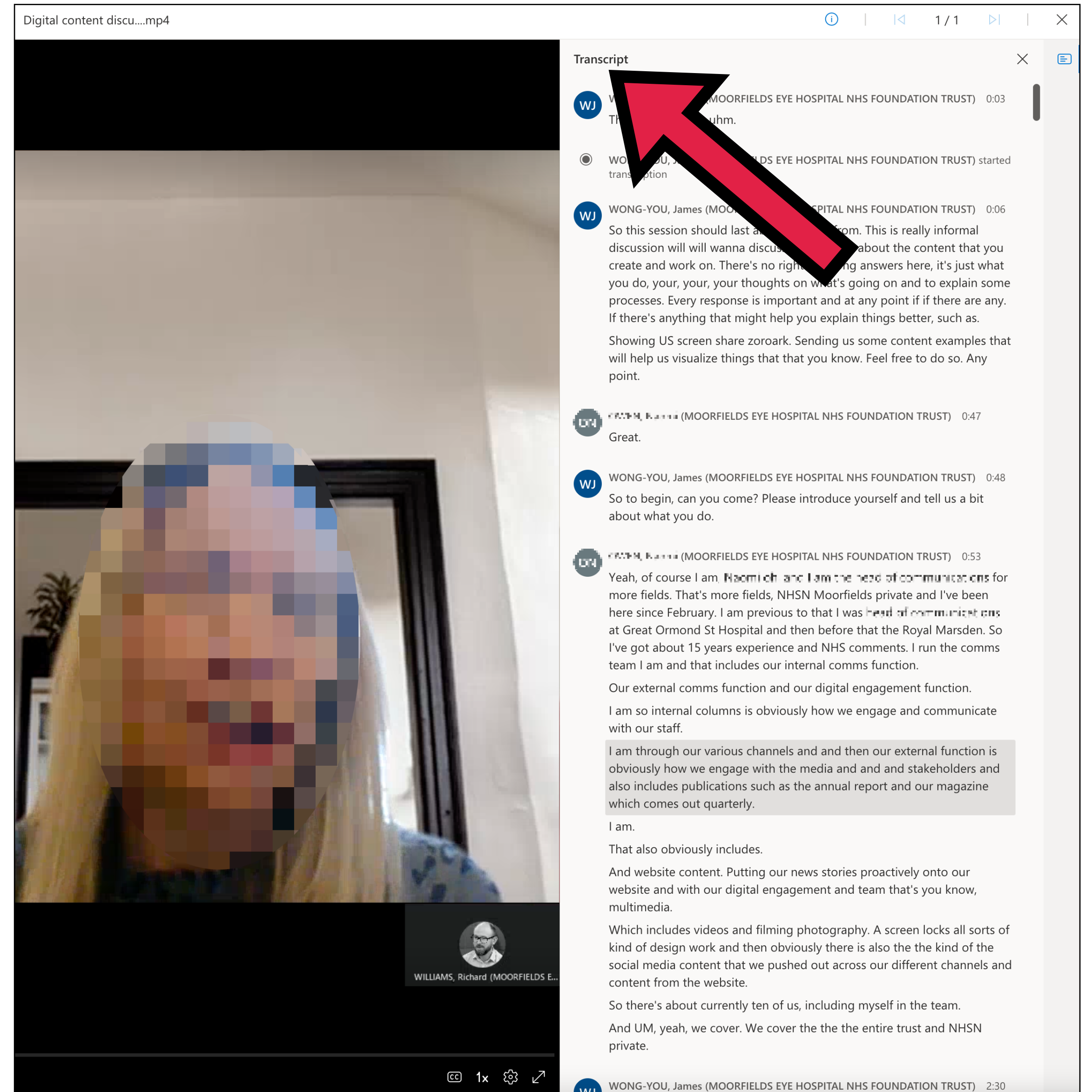
- search for **recipes** based on **season**, **occasions**, **cuisines**, **chef**, **programme** and **ingredients** used.
- rate the recipes they find and/or make so that the relative quality of a recipe is understandable.
- access 'how-to videos' for a **recipe** so that they can watch how to prepare the meal.
- print the recipe so that they can have a physical copy to take to the shop, add to their archive of recipes and/or to use when preparing the **meal**.
- favourite recipes that they like so that they can find them again later.
- access a **shopping list** that enables them to check-off **ingredients** when they look in their larder and/or shop for **ingredients**.
- find related and similar recipes so that they can find the best idea for their needs.
- understand what **ingredients** (and alternatives) they need so that they can decide whether they can make the recipe.
- find newly created and/or featured recipes that the BBC want to promote.
- learn food preparation so that they have the **skills** needed to prepare food appropriately.]

User research data

Recorded interviews, usability engineering sessions and text-rich survey data are great sources of primary data

Tip: automatic audio transcription services are true *game changers*.

Record in tools like Zoom/Teams, or upload recordings to Otter.ai, Trint and Dovetail etc.



A user research interview recorded in a Microsoft Teams meeting with automatic audio transcription enabled

PDF

A justly maligned format, but still a strong source of text-based nouns

Tip: look for *domain definitive* PDFs, both from your own organisation, competitors and the world, like:

- annual reports
- user manuals
- factual advice for users
- 5-year strategies

...

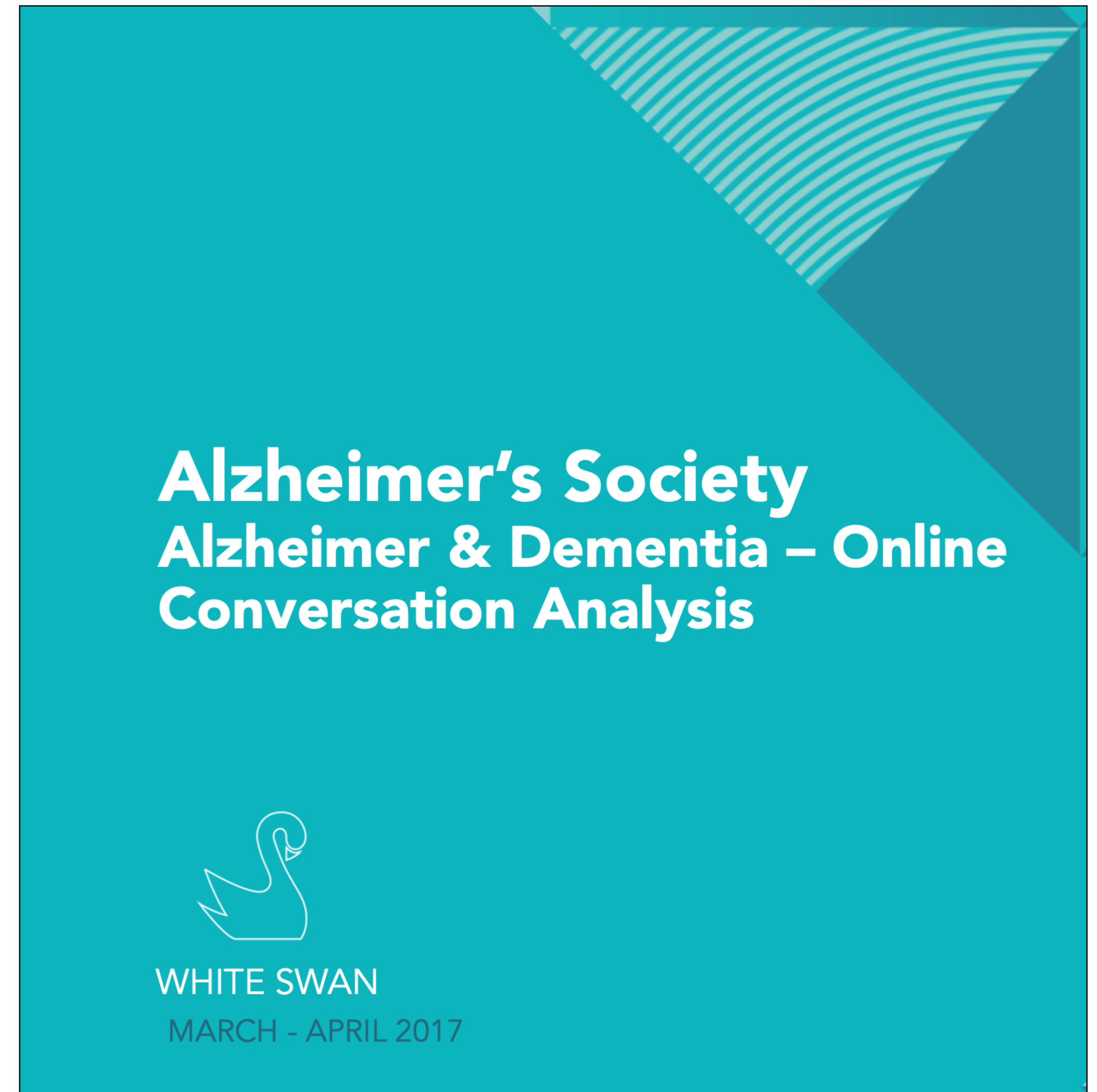


An example of a single domain definitive data source, of a type typically served via PDF

Social conversations

Use social listening data, or mine database table exports from user forums

Tip: consider partnering with a social listening agency/partner to get the social data, at the greatest scale from the best mix of sources.



Social listening data from 1 million real conversations about terminal disease

CRMs

Forage your customer relationship records for nouns they cite when the engage with you

Tips:

- look for rich content about user experience and user needs, usually captured by `textArea` form fields.
- ask your CRM developer for an *en bloc* export of specific data, perhaps as CSV.

salesforce
[Andy Rouse](#) ▾ [Setup](#) [Help & Training](#)

[Home](#) [EA Dashboard](#) [Find Referrals](#) [Finder](#) [CRS Referrals](#) [CRS Profiles](#) [People](#) [Service Usage](#) [Dementia Connect - Services](#) [CRS Conditions](#) [CRS Information Resources](#) [CRS Referrers](#) +

natterbox
Available for EA SB Users calls ▾

Keyboard
Settings
Call Center

1	2	3
4	5	6
7	8	9
*	0	#

Recent calls
 12:40: 442074237307

Links
[Knowledge-net](#)
[Arena](#)
[Webmail](#)
[Society CRS Reports](#)

Public Tags

Recent Tags ▾

Information Provision
[Log a Call](#)

Shortcut
 [Calendar](#)
 [Unresolved Items](#)

Recent Items

Green Greta (Dementia Connect - Tier 1)
 Call 2007/2018 12:40 Triage call Complete
 Greta Green
 Greta Green
 CRSWI-04482
 REF-01724
 a1USE000001Dmz
 Jean Adams
 John Major
 Major John (Dementia Connect - Tier 1)

Create New... ▾

Messages and Alerts

'Remember to mark a service usage as active by adding "Case Opened" or "Service Required" as the Referral Outcome.

Messages and Alerts (CRS)

Recycle Bin

Greta Green

In triage

There is a Tier 2 Service available

Next Activity : Tier 1

P00833529 - Person with Dementia

[Person](#) [About me](#) [Outcome Management \(1\)](#) [Medical / Risk](#) [Actions](#) [Other](#) [Timeline](#)

All about me

Who do I like to see

I like to see my daughter, who visits 3 times a week

My hobbies and interests

I still enjoy gardening and try to get to my local cafe as often as possible

My general wellbeing

I've been well, although I've noticed a deterioration in my memory over the last year or so.

My current support activities

My at-home support

I currently have no paid for support, but my family often visit to help

My Household

Living Arrangements

Own home ▾

The Living Arrangements of the person. They do not have to answer. 'None' means not asked; 'Not Disclosed' means was asked but didn't answer.

People in household

Service User and others

Date of Change of Living Arrangements

Number of dependent children

My Demographics

Ethnicity

White - British (English/Welsh/Scottish/Northern Irish) ▾

--None-- ▾

Marital status

--None--

The Marital Status the person identifies with. They do not have to answer. 'None' means not asked; 'Prefer not to say' meant didn't answer.

Sexual Orientation

--None-- ▾

The Sexual Orientation the person identifies with. They do not have to answer. 'None' means not asked; 'Prefer not to say' means was asked but didn't answer.

Gender Reassignment

--None--

Faith

--None-- ▾

If Other....

NHS Number

The NHS Number is the national unique identifier that makes it possible to share patient information across the whole of the efficiently and accurately. The NHS Number is 10 numeric digits in length.

My Relationships

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A CRM for a dementia service — extract rich user-centred data entries at scale

Content inventories

Well formed titles, headings, meta descriptions and URLs are all noun sources

Tips:

- use machine-built inventories for their speed, scale, accuracy and (meta)data types. I use ScreamingFrog SEO Spider.
- look *beyond* your own website.

Inventory: Crate & Barrel > Kitchen and Food section						
File Edit View Insert Format Data Tools Extensions Help Accessibility Last edit was 3 days ago						
100% £ % .0 .00 123 Default (Ari... 9 B I S A [icon] [icon] [icon] [icon] [icon] [icon] [icon] [icon] [icon] [icon] [icon]						
A1	Address					
	A	G	H	J	K	
1	Address	Title 1	Title 1 Length	Meta Description 1	Meta Descript	H1-1
2	/kitchen-and-food/	Housewares & Home Kitchen Store	48	Shop housewares and home kitchen	154	Kitchen
3	/kitchen-and-food/waffle-makers/1	Waffle Makers: Belgian, Mini & More	52	Start your day off right with a conveni	157	Waffle Makers
4	/kitchen-and-food/juicers/1	Healthy Juicers, Juice Extractors and	67	Free Shipping. Create fresh juices, s	152	Juicers & Blender
5	/kitchen-and-food/cookware-bakeware/	Cookware Crate & Barrel	25	Shop professional grade cookware an	137	Cookware
6	/kitchen-and-food/coffee-and-tea/	Coffee Pots, Espresso Machines & T	58	Shop for coffee, tea and espresso su	139	Coffee, Espresso
7	/kitchen-and-food/saucepans-sauciers/1	Saucepans and Sauciers Crate & B	39	In addition to making sauces includin	161	Saucepans & Sau
8	/kitchen-and-food/coffee-espresso-and-tea/1		0		0	
9	/kitchen-and-food/pie-bread-cake-pans/1	Pie, Bread and Cake Pans Crate &	41	Expand your baking capabilities with	154	Pie, Bread & Cak
10	/kitchen-and-food/cookware-by-material/	Cookware by Material Crate & Barre	37	Shop for Cookware by Material at Cra	115	Cookware by Mat
11	/kitchen-and-food/roasters-lasagna-pans/1	Roasters, Roasting Pans & Lasagna	55	Shop for roasters and lasagna pans a	124	Roasters & Lasag
12	/kitchen-and-food/espresso-makers/1	Espresso Maker and Espresso Mach	52	Order an espresso maker or an espre	150	Espresso Makers
13	/kitchen-and-food/kitchen-standing-mats/1	Kitchen Standing Mats Crate & Barr	38	Shop for Kitchen Standing Mats at Cr	116	Kitchen Standing
14	/kitchen-and-food/colanders-salad-spinners/1	Colanders, Strainers and Salad Spin	56	Shop for colanders and salad spinner	134	Colanders & Sala
15	/kitchen-and-food/cookware-offers/1		0		0	
16	/kitchen-and-food/toasters-ovens/1	Toasters and Toaster Ovens Crate &	43	Get free shipping on toasters and toa	156	Toasters & Toaste
17	/kitchen-and-food/frying-pans-skillets/1	Fry Pans & Skillets: Non-Stick, Steel	61	Round out your cookware collection v	161	Frying Pans & Sk
18	/kitchen-and-food/gourmet-food-beverages/1	Gourmet Food Gifts Crate & Barrel	35	Find gourmet food gifts at Crate & Ba	127	Gourmet Food, C
19	/kitchen-and-food/specialty-appliances/1	Specialty Appliances: Slow Cookers	58	Free Shipping. Shop for specialty app	132	Specialty Applian
20	/kitchen-and-food/cutting-boards/1	Cutting Boards: Wood, Plastic, Epicu	57	Crate & Barrel has high-quality, durat	124	Cutting Boards
21	/kitchen-and-food/mixing-bowls/1	Mixing Bowls: Glass, Stainless Steel,	62	Shop for mixing bowls at Crate & Bar	141	Mixing Bowls
22	/kitchen-and-food/knife-sharpeners/1	Knife Sharpening. Rods & Sharpener	52	Shop for knife sharpeners at Crate &	137	Knife Sharpeners
23	/kitchen-and-food/coffee-grinders/1	Coffee Grinders & Burr Mills Crate &	45	Enhance your mornings with coffee g	156	Coffee Grinders
24	/kitchen-and-food/stock-soup-pots/1	Stock Pots & Soup Pots Crate & Ba	39	Soup's on. Stock pots and soup pots	149	Stock & Soup Pot
25	/kitchen-and-food/food-processors/1	Food Processors and Choppers Cra	45	From mini choppers to 16 cup food p	152	Food Processors
26	/kitchen-and-food/best-selling-cookware/1	Top Rated Kitchen Cookware for 202	52	Update your kitchen with top rated co	156	Best Sellers: Kitch
27	/kitchen-and-food/kitchen-by-crate-cutting-boa	High-Quality Cutting Boards by The K	68	Welcome to The Kitchen by Crate, ou	154	Kitchen by Crate
28	/kitchen-and-food/cooking-videos/	Build Cooking Skills with Ready Set F	64	Improve your cooking skills while cre	157	Ready Set Prep
29	/kitchen-and-food/pizza-tools/1	Pizza Tools & Accessories for Pizza I	59	With the right pizza tools, making hor	141	Pizza Tools & Ove
30	/kitchen-and-food/limited-time-offers/		0		0	
31	/kitchen-and-food/knife-sets/1	Knife Sets: Wusthof, Shun and Globa	53	Free Shipping. Shop for knife sets at	138	Knife Sets
32	/kitchen-and-food/kitchen-clearance/1		0		0	
33	/kitchen-and-food/baking-tools-utensils/1		0		0	
34	/kitchen-and-food/baking-utensils/1	Baking Tools and Utensils Crate & E	42	Shop for baking utensils at Crate & B	153	Baking Tools & Ut
35	/kitchen-and-food/new-kitchen/1		0		0	
36	/kitchen-and-food/cutting-board/1		0		0	
37	/kitchen-and-food/mixers/1	Mixer: Stand and Hand Mixer Crate	44	Get free shipping on food mixers from	144	Mixers & Attachm
38	/kitchen-and-food/the-happy-kitchen/1	Colorful Kitchen Accessories for a Ha	65	Brighten up your kitchen with colorfu	165	The Happy Kitch
39	/kitchen-and-food/dutch-ovens/1	Dutch Ovens & Cocottes for Cooking	51	Free Shipping. Shop for a dutch ove	151	Dutch Ovens
40	/kitchen-and-food/pour-over-coffee-makers/1	French Press, Pour Over & Cold Bre	66	Get your caffeine fix with French pres	147	Pour Over, Fren
41	/kitchen-and-food/utility-and-kitchen-helpers/	Kitchen Organizers for the Pantry & C	61	Keep your cooking space organized v	153	Kitchen Storage

An inventory generated in 10-mins for Crate & Barrel using ScreamingFrog Spider

Project documents

Particularly useful so that ‘internal only’ data can be included

Tip: a good start point if you’re joining, or specifying, a project at its outset. But note that these are secondary and non user verbatim sources.

Moorfields digital platform specification

Feb 15, 2021

Section Break

Summary of ask 4

Problems to be solved 5

Strategic Objectives 6

Who the users are and what they need to do 6

Key outputs by phase 7

Phase 1 7

Potential subsequent phases of development 7

Phase 2 8

Phase 3 8

Other future phases 8

Summary of work to date 8

Project Team roles in relation to website project 8

Assumptions: 8

Role 8

Responsibilities 8

Organisation 8

Project governance 11

Non functional requirements 11

Availability and Reliability 12

Accessibility 12

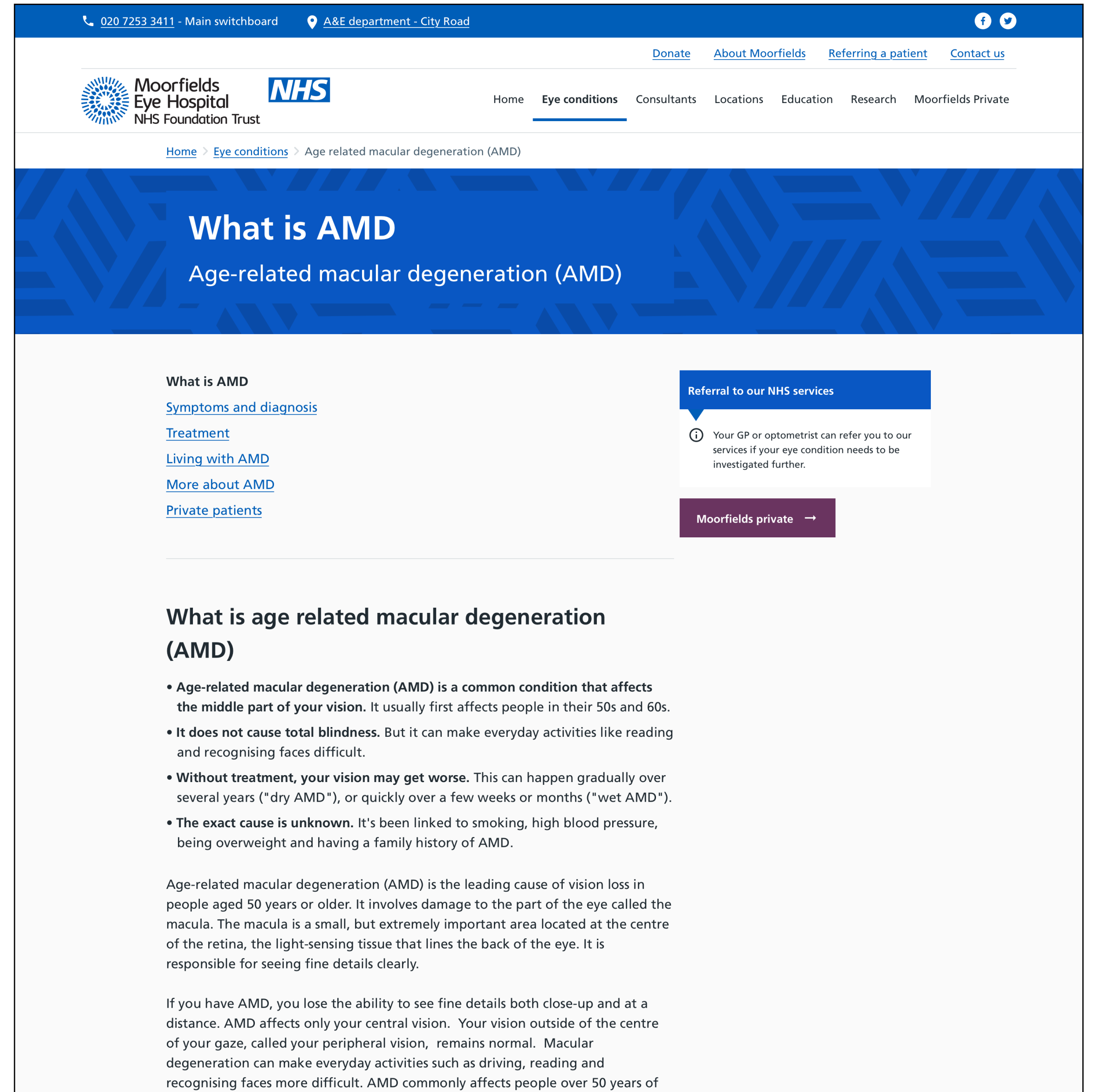
A specification brief for a public tender process to find/select an agency partner for Moorfields Eye Hospital.

Webpages

At more than 50 billion pages, the WWW is an inexhaustible source!

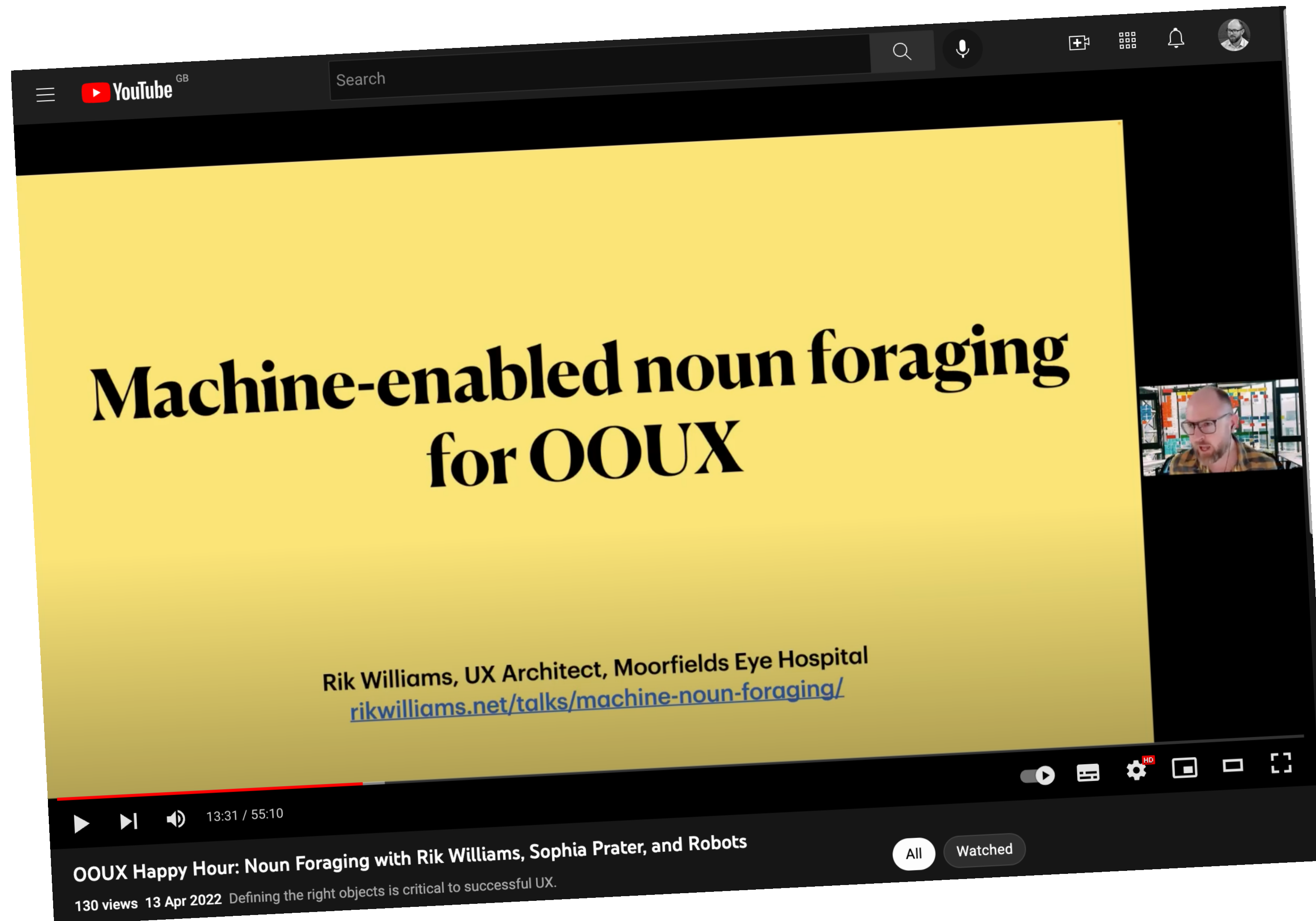
Tip: consider trialling Sketch Engine which can *find **and** fetch* textual data via its automatic corpus builder. It can compile nouns at scale via its:...

- web search,
 - URLs list,
 - website download (up to 10k pages)
- ...functions.

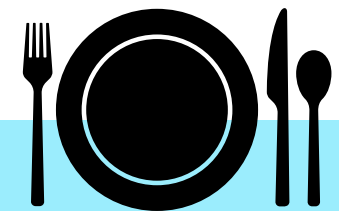


The screenshot shows the Moorfields Eye Hospital NHS Foundation Trust website. The header includes contact information (020 7253 3411 - Main switchboard, A&E department - City Road) and social media links. The main navigation bar features links for Home, Eye conditions (selected), Consultants, Locations, Education, Research, and Moorfields Private. A secondary navigation bar includes links for Donate, About Moorfields, Referring a patient, and Contact us. The breadcrumb trail shows Home > Eye conditions > Age related macular degeneration (AMD). The main content area has a blue header with the title "What is AMD" and subtitle "Age-related macular degeneration (AMD)". Below this, there are links for "What is AMD", "Symptoms and diagnosis", "Treatment", "Living with AMD", "More about AMD", and "Private patients". A callout box on the right titled "Referral to our NHS services" contains information about GP referrals. A purple button labeled "Moorfields private" with a right arrow is also present. The main text defines AMD as a common condition affecting the middle part of vision, typically in the 50s and 60s. It lists key points: it does not cause total blindness, vision may worsen without treatment, and the exact cause is unknown. A paragraph explains that AMD is the leading cause of vision loss in people aged 50 or older, involving damage to the macula. A final paragraph states that AMD affects central vision, while peripheral vision remains normal, and it commonly affects people over 50 years of age.

Look for domain relevant sources, like blog posts, articles, papers, advice. Both from your own organisation, competitors or the wider web.



rikwilliams.net/talks/machine-noun-foraging/



Recipe

Meal

Method

Recipe



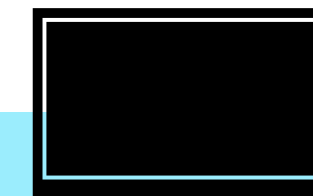
Chef

Chef

Cook

Baker

Cuisinier



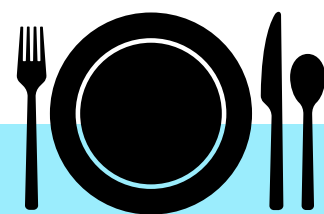
Program

Show

Broadcast
st

Podcast

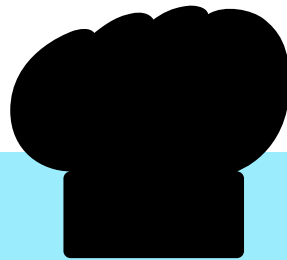
Recipe
Index



Recipe

Name
(Gingerbr
ead men)

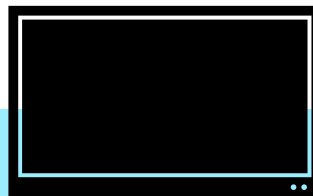
Chef
Index



Chef

Name
(Delia
Smith)

Program
Index



Program

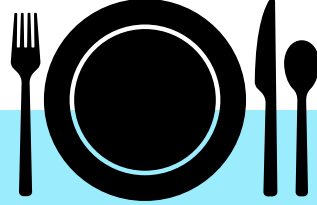

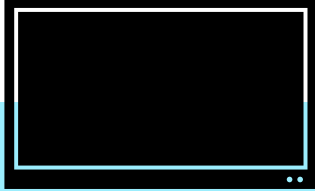
Name
(Delia's
Christmas)

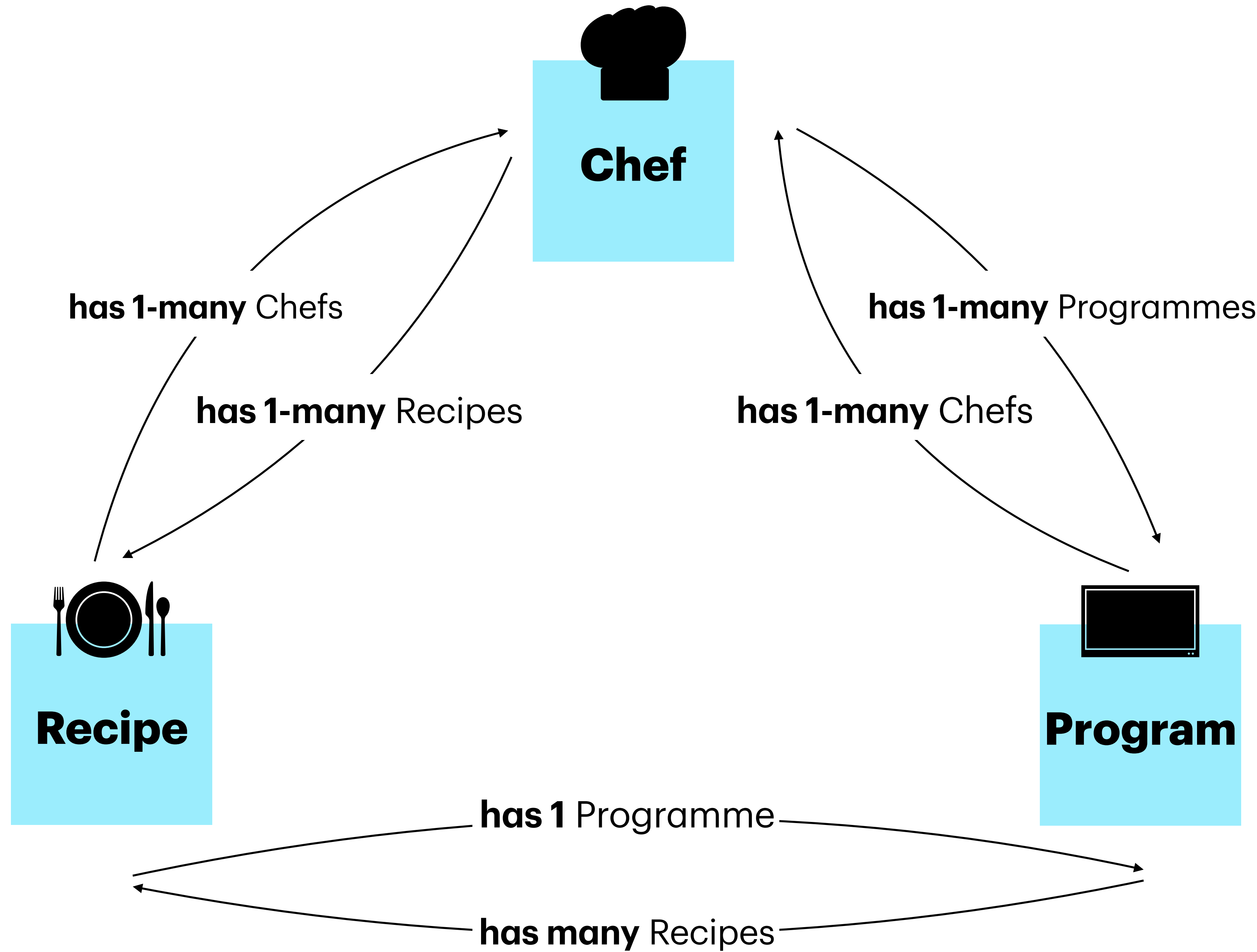


Relationships

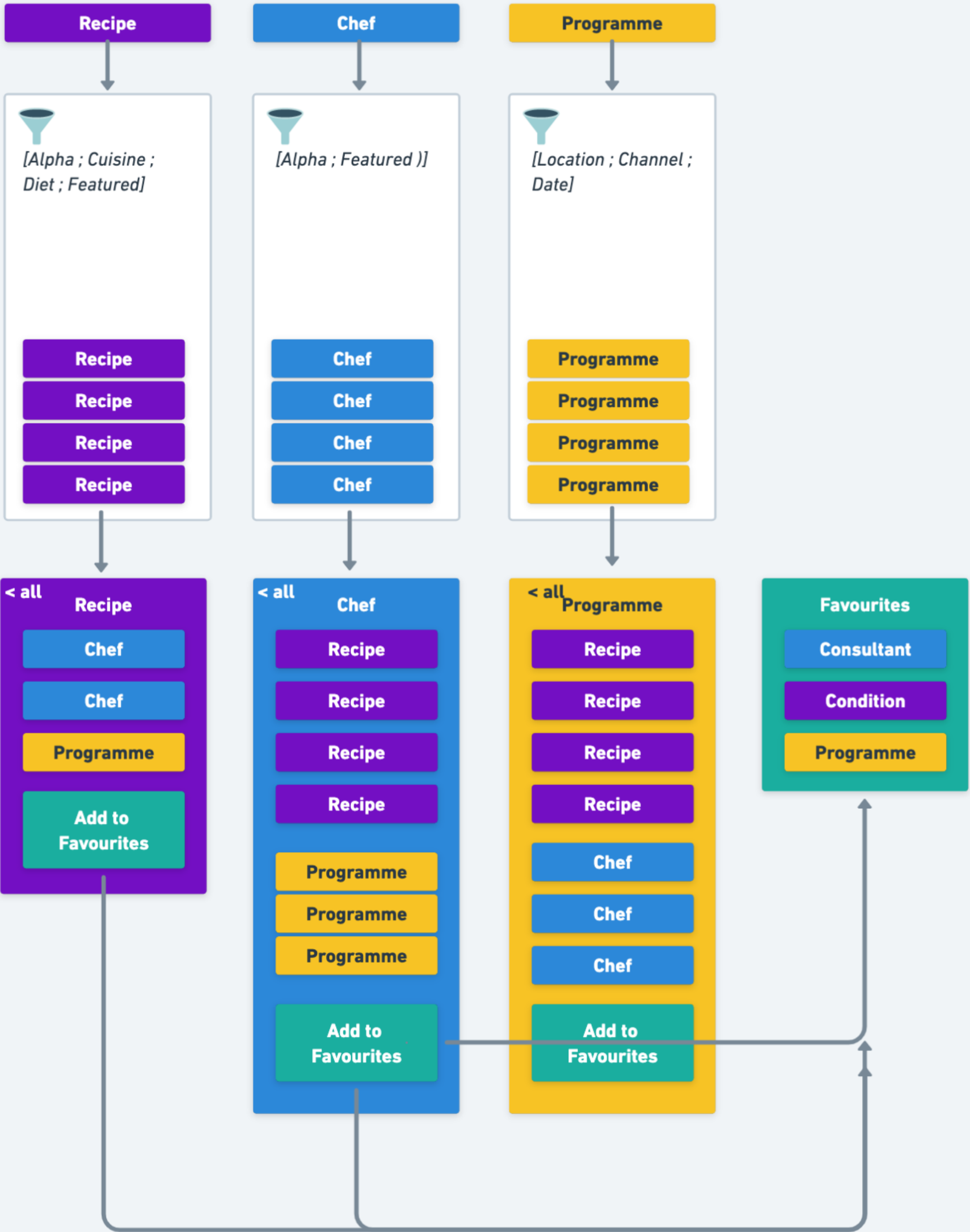
“You only understand something relative to something you already understand.”

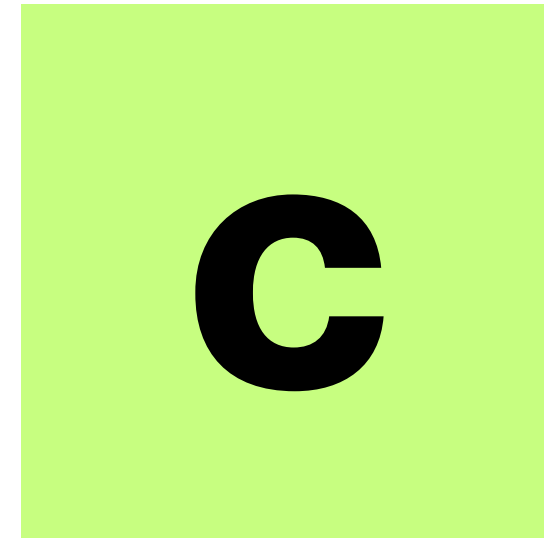
Richard Saul Wurman

	 Recipe	 Chef	 Program
Recipe	has 1- many	has 1- many	has 1
Chef	has 1- many	has 1- many	has 1- many
Programme	has 1- many	has 1- many	has 1- many

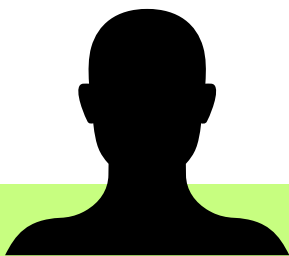
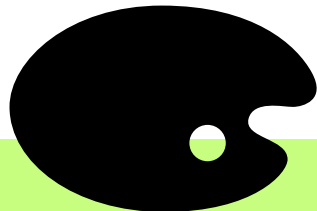



Primary Navigation Objects





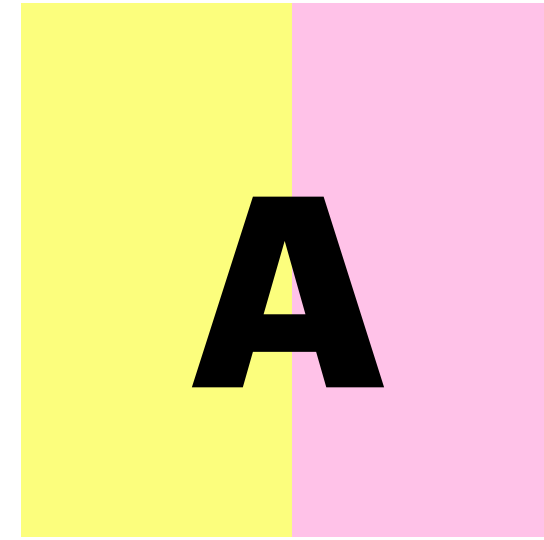
Calls-to-Action

	<div> User</div>	<div> Content Designer</div>	<div> Chef</div>
Recipe	Rate	Favourite	Approve
	Print	Share	
		Create	Delete
		Update	Review



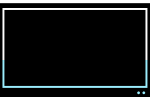
Product BoardCTA InventoryVisionAudiencesThemesReleasesChannel and Tactic Types

SHAREBLOCKS

Grid view



Attributes

<div>  </div> <div>Recipe</div>	<div>  </div> <div>Chef</div>	<div>  </div> <div>Program</div>
Name (Gingerbread men)	Featured?	Name (Saturday Kitchen)
Lead Image	Name (Delia Smith)	Lede
Rating Score	Photo	Latest episode
Lede	Bio	Program
Chef	Recipe	Recipe
Lede	Bio	



NESTED OBJECTS				Save			Save	Save
				Share			Share	Share
	Save	Save	Save	Was this content useful?			Was this content useful?	Was this content useful?
	Share	Share	Share	Report a problem			Report a problem	Report a problem
	Was this content useful?	Was this content useful?	Was this content useful?	Speak to an Adviser			Speak to an Adviser	Speak to an Adviser
	Report a problem	Report a problem	Report a problem	Print a copy			Post my comment	Print a copy??
	Speak to an Adviser	Speak to an Adviser	Speak to an Adviser	Add to basket	Update Review??	Add a comment	Update comment	Uptvate Tip
	Print a copy	Print a copy	Print a copy	Raise product	Post my Review	Submit your story	Reply to Comments	Submit your Tip
	List of conditions / diseases	List of symptoms	List of treatments (therapies, drugs etc)	List of products	List of reviews	List of real stories	List of Comments	List of tips
								
Condition	Symptom	Treatment	Product	Product Review	Real Story	Real Story Comment	Tip	
Condition	has 1-many related conditions	has 1-many conditions where it presents	has 1-many conditions which it helps	has 0-many conditions which are featured	has 0-many conditions which are featured		has 0-many conditions	
Symptom	has 1-many symptoms which affect the person	has 1-many related symptoms	has 1-many symptoms which it helps	has 0-many symptoms which are featured	has 0-many symptoms which are featured		has 0-many symptoms	
Treatment	has 0-many treatments which can help	has 0-many treatments which can help	has 1-many related treatments (therapies)	has 0-many treatments which is a part of	has 0-many treatments which are featured		has 0-many treatments	
Product	has 0-Many products which can help	has 0-Many products which can help	has 0-many products which are related	has 0-many Products with Reviews	has 0-many products which are featured		has 0-many products	
Real Story	has 0-many real stories about it	has 0-many real stories about / featuring it	has 0-many real stories featuring it	has 1-many real stories featuring it	has 1-many related real stories	has 0-many Real Stories with Comments	has 0-many real stories	
Tip	has 0-many tips which help manage it	has 0-many tips which can help manage it	has 0-many tips about how to use it well	has 0-many tips included in it			has 0-nested tips	
	Lead Image	Lead Image	Lead Image	Lead image	Review	Summary	Comment	Tip
	Pictogram ??	Pictogram ??	Pictogram ??	Image Gallery	Star rating	Image	Email	Image of Tip
	Definition	Definition	Definition	Description	Verification question	Author	Date	Video of Tip
	Overview	Overview	Overview	Stock status		twitter handle	Time	Type of Tip
	Symptoms	Types??	Side Effects??	Review star score		Date published	Vote count	
	Causers	Causers	Video	Number of reviews		Number of comments		
	Diagnosis	Consultation??	Image	Price (GAD / VAT)		Read time / length		
	Treatments	Video	Stage	Price (full)		Real story		
	Prevention	Image	Date published	Key features		Image		
	Outlook	Stage	Next review date	How it works		Video		
	Living and Care Giving	Date published	Date last updated	What's included				
	Help and Support	Next review date		Video overview of Product				
	Long-term planning	Date last updated		Shipping				
	BSL narrated version			VAT Relief				
	Professionally narrated version			Stage??				
	Image			Date published				
	Video			Next review date				
	Date published			Date last updated				

Condition



Object guide



Name / Medical name



Required

Content source: Api via NHS.net



Definition



Required

Content source: Api via NHS.net



Symptoms



Required

Content source: Api via NHS.net



Causes



Sureness: s2

Content source: Api via NHS.net



Tests for



Sureness: s2

Content source: Written in-house



Diagnosis



Sureness: s1

Content source: Written in-house



Treatments for



Sureness: s2

Content source: Written in-house



Prognosis



Content source: Written in-house

User needs

NHS/Private

- Reassure myself that I am in good hands

-- Find out if my consultant is suitable for my condition

-- Find out what qualifications my consultant has

-- Find out how much experience my consultant has

-- Find out what research my consultant is involved in

Private specific

- Decide if this consultant is suitable for my care

- Book an appointment with this consultant

Business requirements

- Encourage undesignated appointments

- Showcasing the calibre of expertise/excellence - World class!

- Cater to consultants desire to be showcased on the Moorfields site

Window

NHS

Private healthcare

Mr Yassir Abou-Rayyah

Consultant ophthalmic surgeon

Date joined:

14 January 2012

Book private healthcare

Location I work at

- Moorfields Eye Hospital at City Road

- Moorfields Eye Centre at Ealing Hospital

- Moorfields Private, Purley Way Memorial Hospital

Condtions I treat

- Squint

- Blepharitis

- Eyelid surgery

- Watering eye

- Styes

- Droopy eyelid (ptosis)

Qualifications

- Master of Science University College London

- Master of Science Cairo University

- Medical Doctorate Cairo University

- Medical Doctorate Cairo University

Education

- Research on the intraocular retinal prosthesis ("bionic eye"), at the Wilmer Eye Institute, John Hopkins University Hospital, Baltimore, USA (2000 under the supervision of Professor Mark Humayun).

- Bachelor of Medical Science (BMedSci), Physiology, 2002

- Master of Medical Science (MSc), Physiology, 2004

- Doctor of Medicine (MD), 2010 – research degree

- Certified senior grader for fluorescein angiography and optical coherence tomography, Doheny Image Reading Center, Los Angeles

Work History

Consultant ophthalmic and oculoplastic surgeon, paediatric lead advisor and oculoplastic services, Moorfields Eye Hospital

Phone X

NHS

Private healthcare

Mr Yassir Abou-Rayyah

Consultant ophthalmic surgeon

Date joined:

14 January 2012

Book private healthcare

Location I work at

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- Styes

- Droopy eyelid (ptosis)

CMS Collections

Conditions16 items

Consultants53 items

Locations33 items

Categories5 items

Projects4 items

Conditions

Name

Uveitis

Retinal vein occlusion

Keratoconus

Hypermetropia

Corneal abrasion

Conjunctivitis

Chalazion

Cataract

Blepharitis

Birdshot chorioretinopathy

Amblyopia (lazy eye)

Amblyopia (lazy eye)

Age-related macular degeneration ...

Achromatopsia

Acanthamoeba keratitis

Glaucoma

← Glaucoma

Status: Staged for Publish

Cancel

Save

▼

Basic info

Name*

Name of the condition, like Glaucoma

Glaucoma

Slug*

glaucoma

website.com/condition/glaucoma


Custom fields

Definition

The definition of the condition (if not from the NHS API)

Glaucoma is a common eye condition where the optic nerve, which connects the eye to the brain, becomes damaged.

Image of the condition



glaucoma-moorfields.jpeg

259 x 195 • 9 kB

Replace

Delete

What is [condition]?

It's usually caused by fluid building up in the front part of the eye, which increases pressure inside the eye.

Glaucoma can lead to loss of vision if it's not diagnosed and treated early.

It can affect people of all ages, but is most common in adults in their 70s and 80s|

What are the different type of [condition]?

Note: not all conditions have different types.

There are several different types of glaucoma.

The most common is called primary open angle glaucoma. This tends to develop slowly over many years.

It's caused by the drainage channels in the eye becoming gradually clogged over time.

Other types of glaucoma include:

- acute angle closure glaucoma – an uncommon type caused by the drainage in the eye becoming suddenly blocked, which can raise the pressure inside the eye very quickly
- secondary glaucoma – caused by an underlying eye condition, such as inflammation of the eye (uveitis)
- childhood glaucoma (congenital glaucoma) – a rare type that occurs in very young children, caused by an abnormality of the eye

What causes [condition]?

MedicalWebPage

3 ERRORS 5 WARNINGS ^

@type	MedicalWebPage
dateModified	2022-02-18T15:42:48+00:00
description	Find out what glaucoma is, what the symptoms are, why it happens and how it's treated.
genre	Condition
lastReviewed	2022-02-18T15:42:48+00:00
lastReviewed	2025-02-18T15:42:48+00:00
name	Glaucoma
schemaVersion	http://schema.org/version/13.0/
url	https://demo.digital-moorfields.com/conditions/glaucoma/
about	
@type	WebPage
name	Glaucoma
author	
@type	Organization
email	contact.Moorfields@nhs.net
logo	https://demo.digital-moorfields.com/documents/images/logo.webp
name	Moorfields Eye Hospital NHS Foundation Trust

Benefits of OOUX

user-centred

mapping real mental models to content objects
creates naturally intuitive digital spaces

content-first

thinking of data objects forces teams to define and validate content, metadata, labels and their interrelationships before moving to interaction design

visible

discovering, validating and mapping objects and relationships
enable cross-functional teams to understand the proposed
system

system-agnostic

postponing detailed interface design allows data to be modelled independently of its ultimate contexts of use

sustainable

**real-world mental models are simple, authentic,
and slow to change (vs digital/design)**

lower-risk

understanding objects, their interrelationships, content attributes and calls-to-action (ORCA) at the outset helps to 'get project questions from the future' early so that there are fewer nasty surprises later on

consistent

OO thinking enables and informs aesthetic, functional, and internally consistent design in a system. Consistency improves learnability, usability and quality

accessible

the consistent predictability of design components reduces
cognitive load for everyone, including people with some
cognitive impairments

scalable

the more complex the problem domain, the more lucidity, coherence and consistency the ORCA process can bring by detangling/defining requirements for the product(s) and/or the project team

efficient

decreases the need for work (and re-work)

serendipitous

it creates inherently discoverable, usable and relevant heterarchical relationships between instances of objects. This enables people to find unanticipated, but highly pertinent, content/results during their search and wayfinding

Role-specific benefits of OOUX

researcher-friendly

synthesising research insights into an OO structure
will expose high-risk assumptions/questions early

writer-friendly

gives content designers early engagement in the design thinking process and provides them with visibility to the types and scale of content that might need designing and governing

content architect-friendly

breaking data into its fundamental components helps ‘make sense of mess’ by wrangling complexity into understanding. This is particularly true if data/content is missing, duplicated, distributed or devolved across a system, siloes or organisation

designer-friendly

provides a methodology of identifying objects which will need patterns in any design system and a framework for organising and governing it as the product/service develops over time

developer-friendly

many coders already use Object-Oriented Programming (OOP) approaches and architectural decision records. Collaborating with a shared model for data can help join-up design with development and create better projects/models

business analyst-friendly

the ORCA process helps BAs understand the system domain, its complexity, likely requirements and dependencies. In turn, this helps them to accurately forecast and monitor resources, budgets and risks for the project

consultant-friendly

the ORCA process, is an excellent way to collaborate with clients and stakeholders. Socialising decision making improves the quality of the product/service and makes for happier project teams

What OOUX can't do

detailed interface/interaction design

it will help define calls-to-action for objects, but not what happens after they're used. Similarly, it can inform, but not create, interface design patterns

creating front-end content design

it will define and scope the types of content and metadata needed, their hierarchies, relationships, and some labels. But it won't deliver the outputs of detailed UX writing, media creation and broader aspects of a content strategy

representing *every* object

whilst OOUX and OOP support each other, developers will still need to factor for, and define, additional objects in their code and databases

designing one-of-a-kind items

factoring for facets of an object, like calls-to-action, content and metadata can help define single instance designs. However, the real benefit of OO thinking is at the system scale

Feedback

“Design depends on critique as an engine.”

Dan Brown

rikwilliams.net/talks/oooux/

A cheeky plug...

[Start a new group - 30% off!](#)

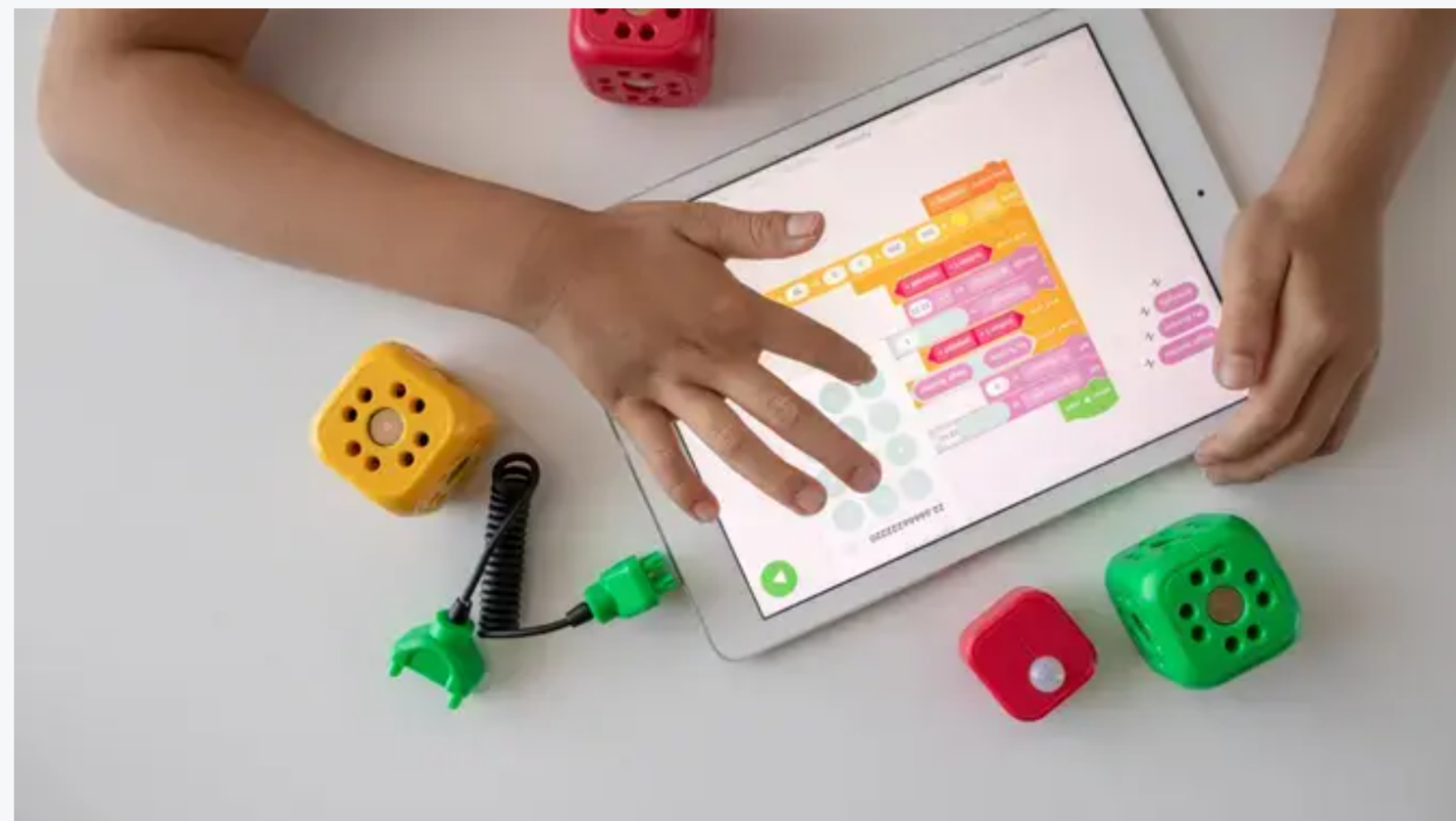
You're going to this event!

Monday, July 11, 2022

User research with kids: lessons from niche groups



Hosted By
Rik W. and 2 others



Organizer tools ▾



The Research Thing

Public group ?



Monday, July 11, 2022 at 6:30 PM to
Monday, July 11, 2022 at 8:30 PM BST

[Add to calendar](#)



Online event

[Report this event](#)

Details

Join us for the first of a two-part summer event focussing on research with niche groups. This event will focus on kids. Our September event will look at research on older populations.

--

As user researchers, we venture into the worlds of our participants. Contexts where there are different norms, values and goals. Places where people behave and interact differently from us. And research with kids is no exception.

Join/speak with us at: meetup.com/researchthing/

Discussion