

Understanding Information Architecture

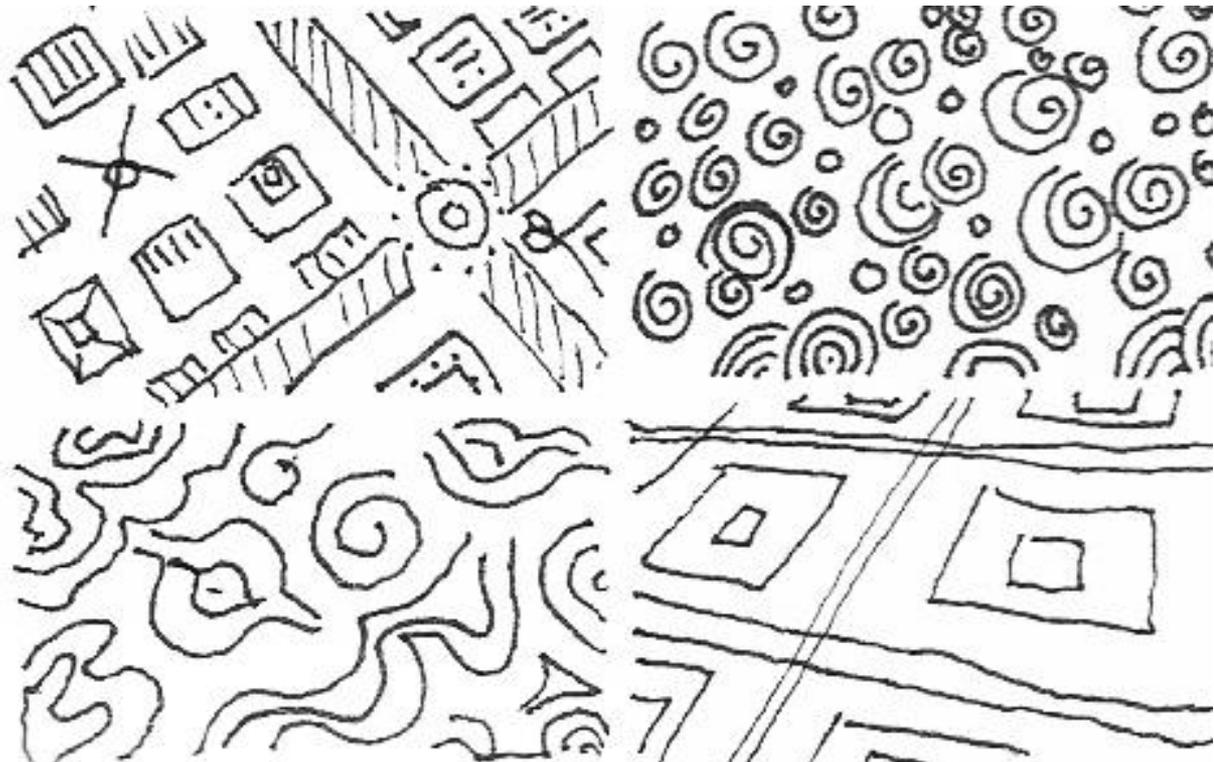
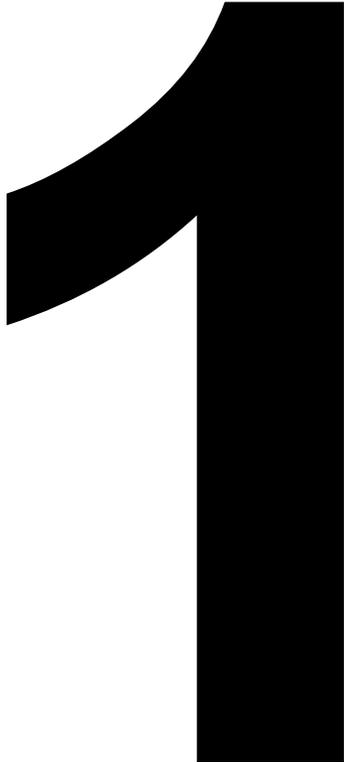
Workshop by: **Abby Covert** | **@Abby the IA**

Agenda

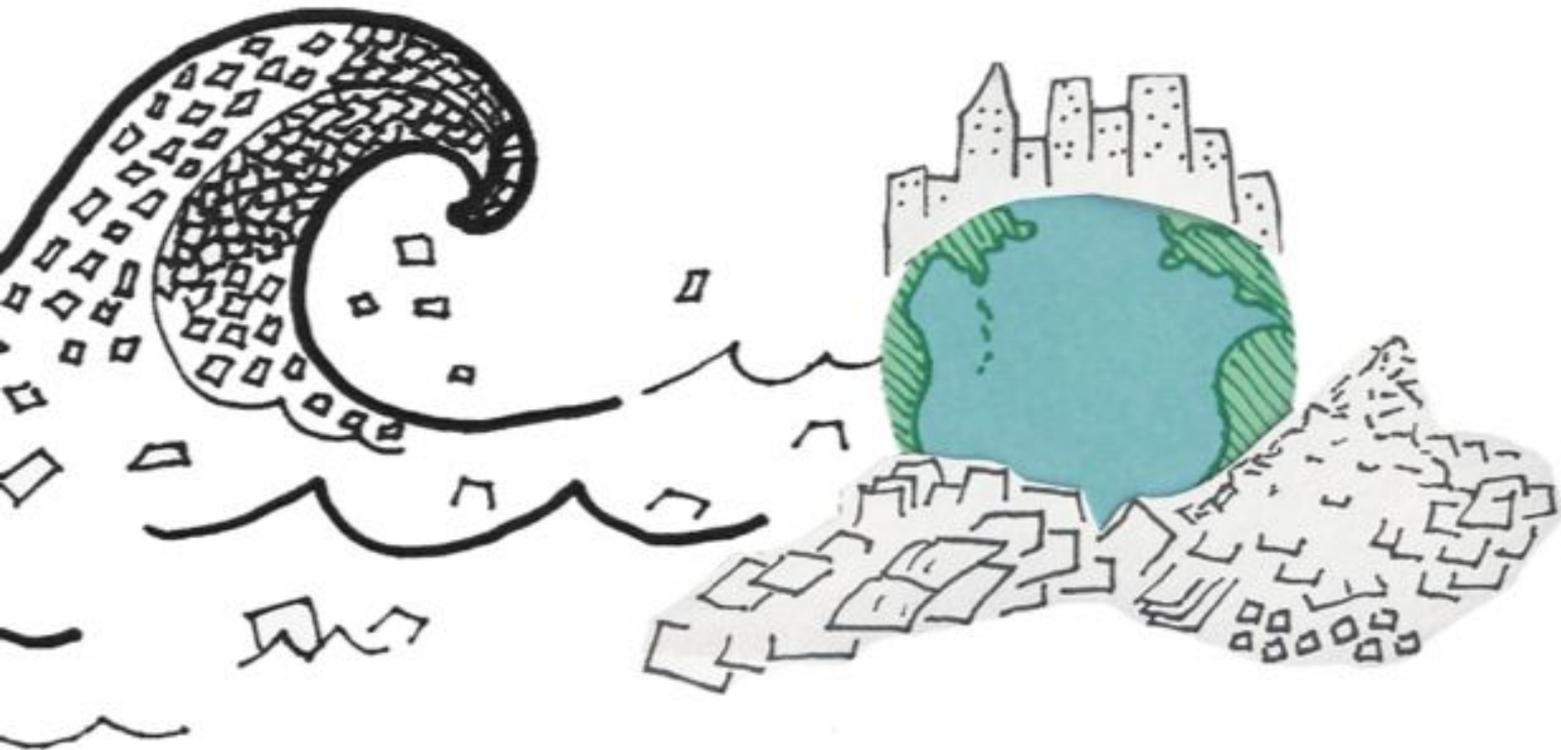
1. Information
2. Ontology
3. Taxonomy
4. Choreography

Q & A

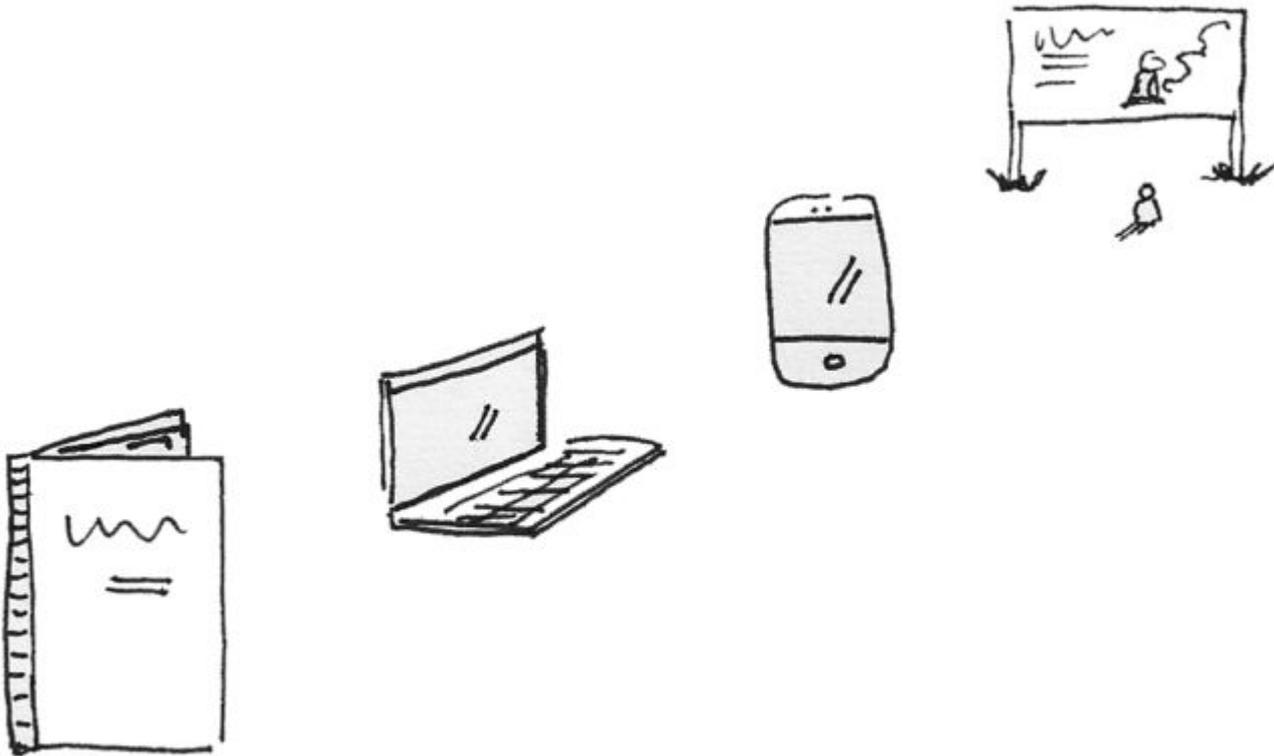
Information



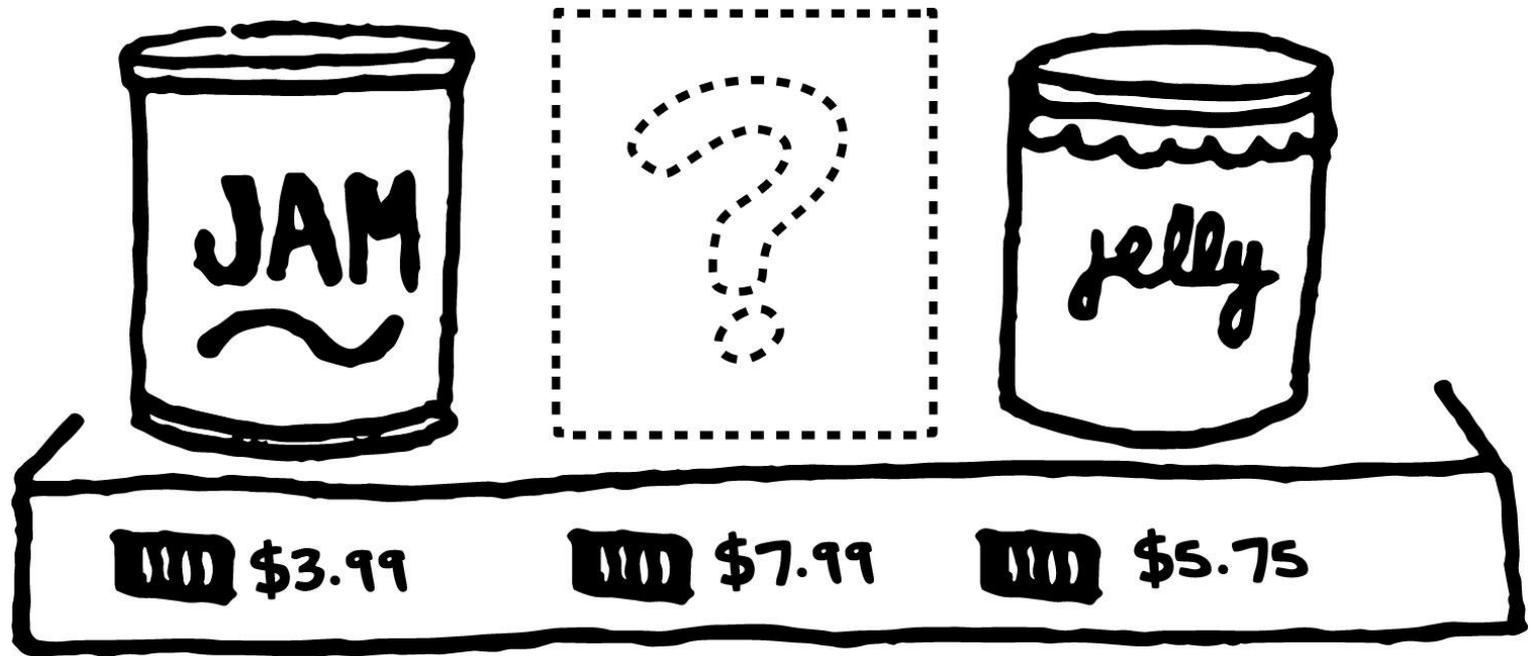
**The world is increasingly
full of messes made of
information (and people)**



Thinking about information as a material is fraught with difficulty.



Information can be created for a lack of physical material.



We can't control the information that our users perceive.

"The double chocolate cookies are more popular than oatmeal raisin"

"The double chocolate chip cookies are less fresh."

"There were definitely more double chocolate cookies at one point."

All of this is information a user has created to make sense of this bakery case. They are doing this so quickly, they don't even realise it isn't "reality" or "truth"

When it comes to understanding information, the truth is not important, perception is.



Information is not the same as data and content

<p>Data is facts, observations, and questions about something.</p>	<p>The individual pieces of context, knowledge, assumptions and questions each viewer considers during their judgement of the cookie arrangement.</p>
<p>Content is whatever a user is interacting with, or as a maker, whatever you're arranging or sequencing.</p>	<p>The cookies, the plate, the signage, the crumbs, the smells in the air, the other products in the case and items on the menu et al...</p>
<p>Information is whatever a user interprets from the arrangement or sequence of things they encounter.</p>	<p>Each viewer's:</p> <ul style="list-style-type: none">• Belief or nonbelief that other cookies were on that plate.• Subjective reasoning for the unequal amount of cookies.

There is no such thing as true information. Only spin.



The language we choose changes perception.



The location of things changes perception.



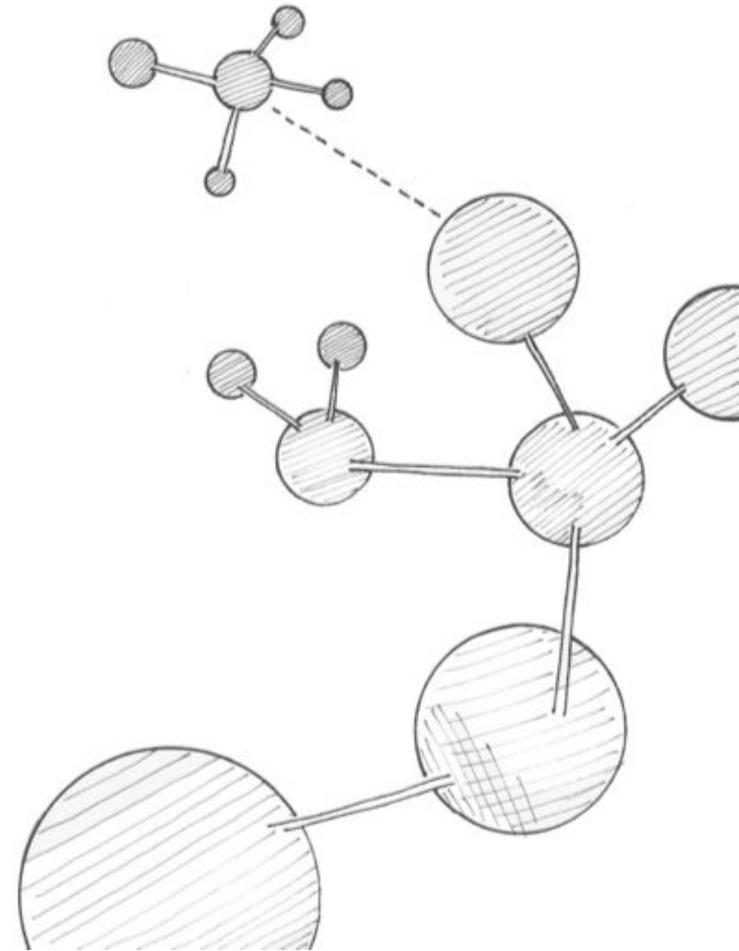
The groups we make change perception.

BASIC INFORMATION	
Birth Date	October 3
Birth Year	1982
Gender	<div style="border: 1px solid gray; padding: 2px;"><input checked="" type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Custom</div>
<input type="button" value="Save Changes"/> <input type="button" value="Cancel"/>	
Languages	English
Political Views	Libertarian

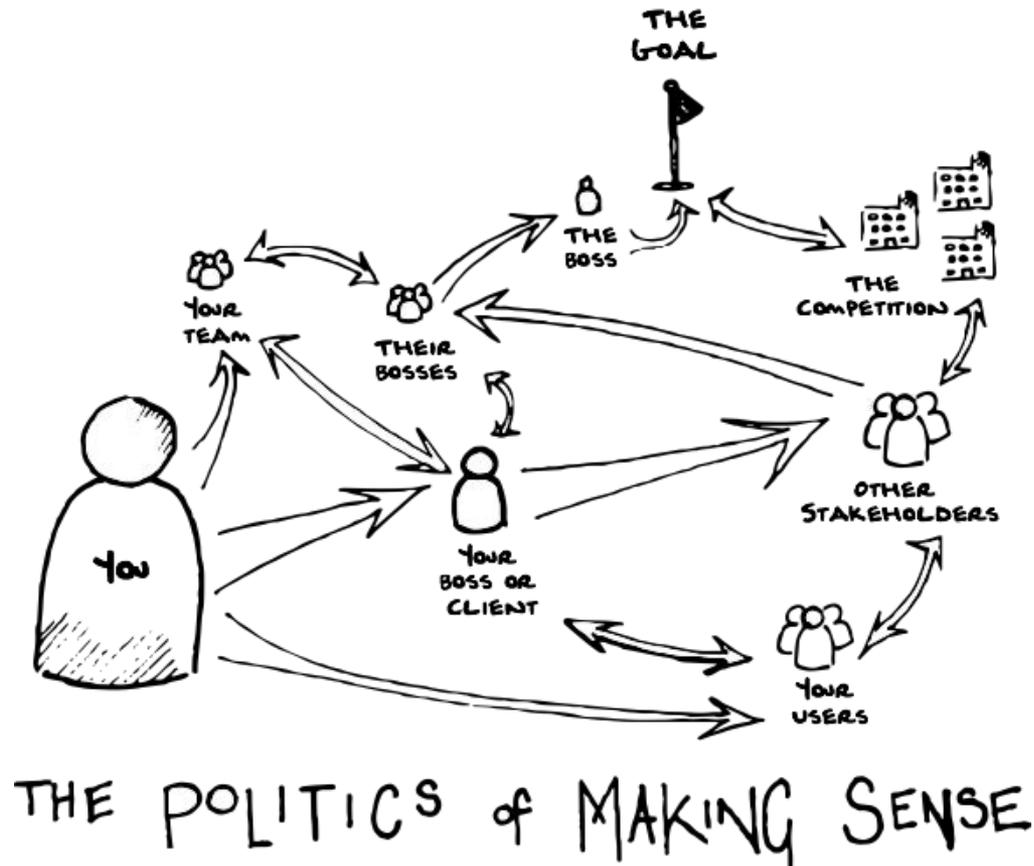
Gender	Custom
Gender	Friends
Ge	
	<div style="border: 1px solid gray; padding: 2px;"><input type="checkbox"/> Gender Fluid <input type="checkbox"/> Gender Variant <input type="checkbox"/> Genderqueer <input checked="" type="checkbox"/> Gender Questioning <input type="checkbox"/> Gender Nonconforming <input type="checkbox"/> Agender <input type="checkbox"/> Bigender <input type="checkbox"/> Cisgender <input type="checkbox"/> Cisgender Female <input type="checkbox"/> Cisgender Male</div>
Interested In	<input type="checkbox"/> Women <input type="checkbox"/> Men

We make things within other things, and places that reside within other places.

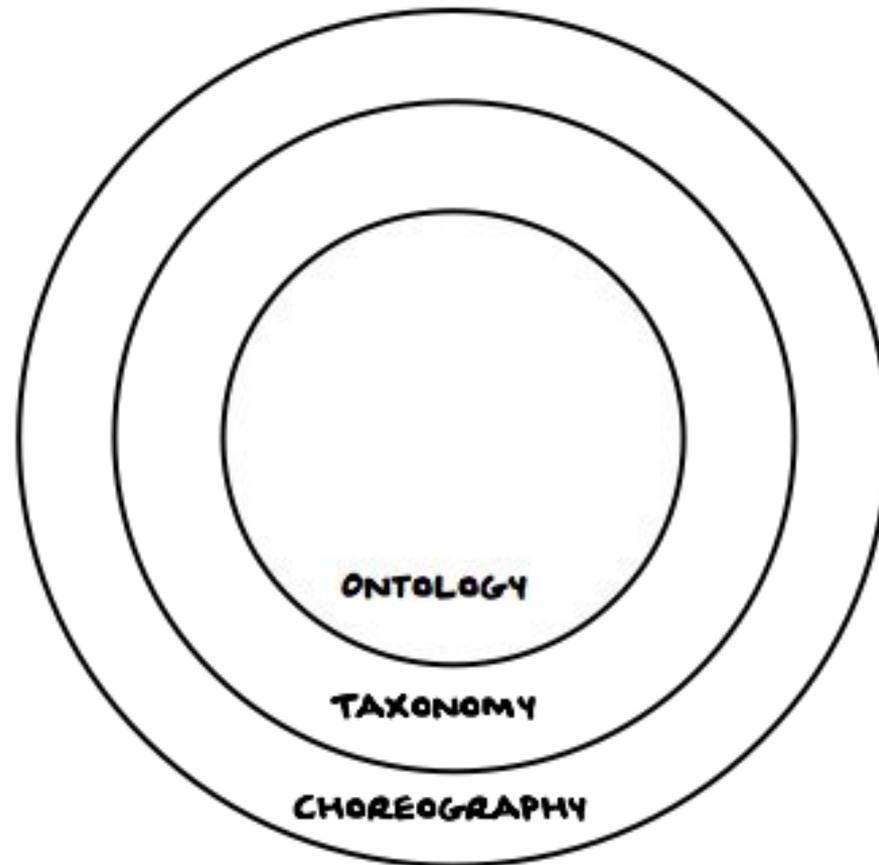
Everything is complex.



Work can get pretty messy when perception is involved.



Information architecture is the practice of making sense.



2

Ontology

AnxietyChangeChaos
sClutterComplexity
ComplicatedDisaster
rDisorderDoubtFear
fulJumble**Mess**Muck
MuddlePredicament
QuandaryClsterFck
PickleSituationNight
mareSnafuRedesign

These are fish.



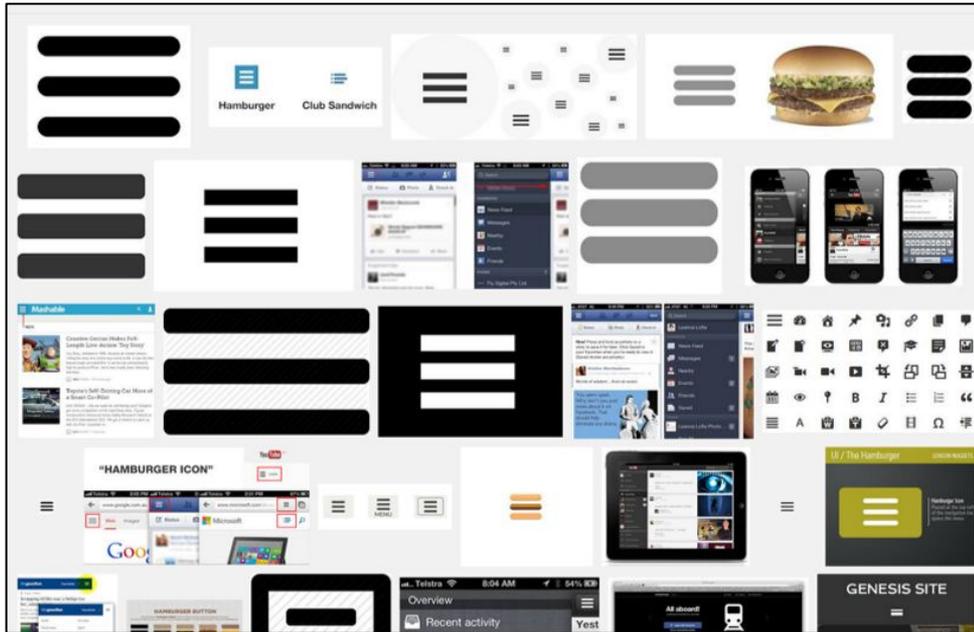
What is ontology?

Ontology is the act of choosing the language to be used or not used within a specific context.

Ontology in action:

- The ontology of the catholic church defines “fish” broadly enough to include the capybara, beaver, iguana and alligator, so it can be eaten on Fridays and during Lent.
- Facebook’s ontology defines like a both a verb AND a noun.
- A needle exchange’s ontology enforcing consistent use of the word “participant” in an attempt to eradicate judgement around words like “user” and “addict”
- McDonald’s ontology allows users to order by number to increase efficiency of communication.

Language is not just words.



Note: if you don't pick a word for something, someone else probably will because sometimes we need words.

Words We Don't Say

Kurt Anderson
New York Magazine

AUTHORED

BIGS (meaning "prominent people")

BISTRO (okay in restaurant reviews, but sparingly)

BOAST (meaning "have")

CELEB

COMELY

COMFORT FOOD

DUO

DON (meaning "put on")

DUBBED

EATERY

EPONYMOUS

FIN DE SIECLE

FLICKS

GRACED

HAILS FROM

HUBBY

INDIE (exception granted for indie rock)

INTONE

LIFESTYLE

MAVEN

NEW YORK'S FINEST

OVERLY

PENNED

QUERIED (meaning "asked")

sentences beginning **RESULT:** or **REASON:**

SCRIPTED

SPORT (as a verb)

STAFFED/STAFFER

TAPPED (meaning "chosen")

, **UM,**

, **UH,**

, **WELL,**

A WHO'S WHO OF

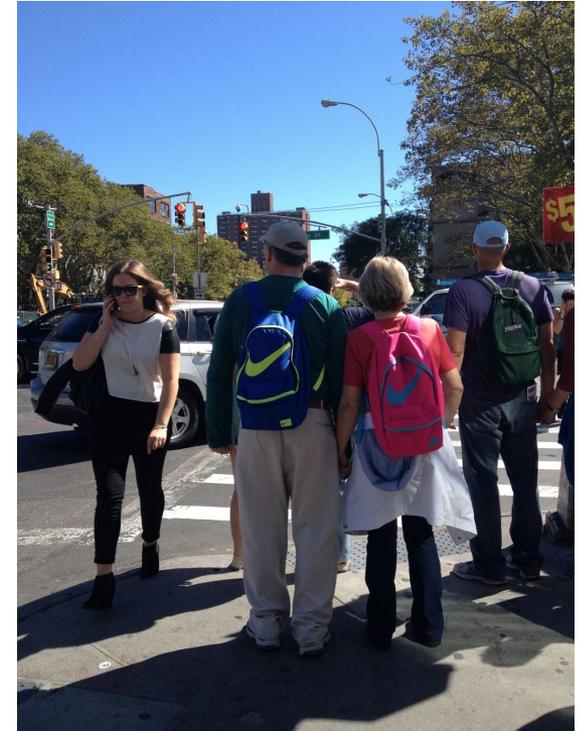
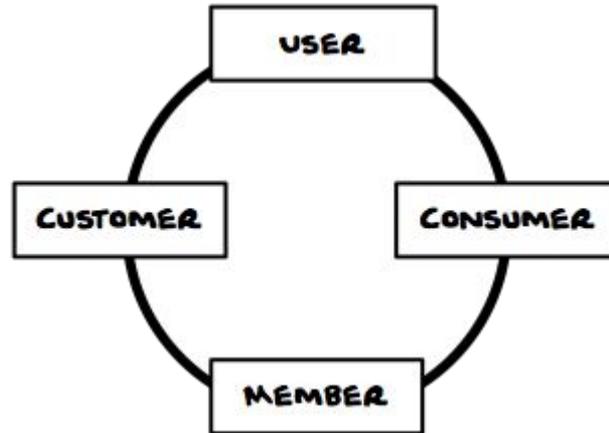
ZEITGEIST

Synonyms can be distracting.

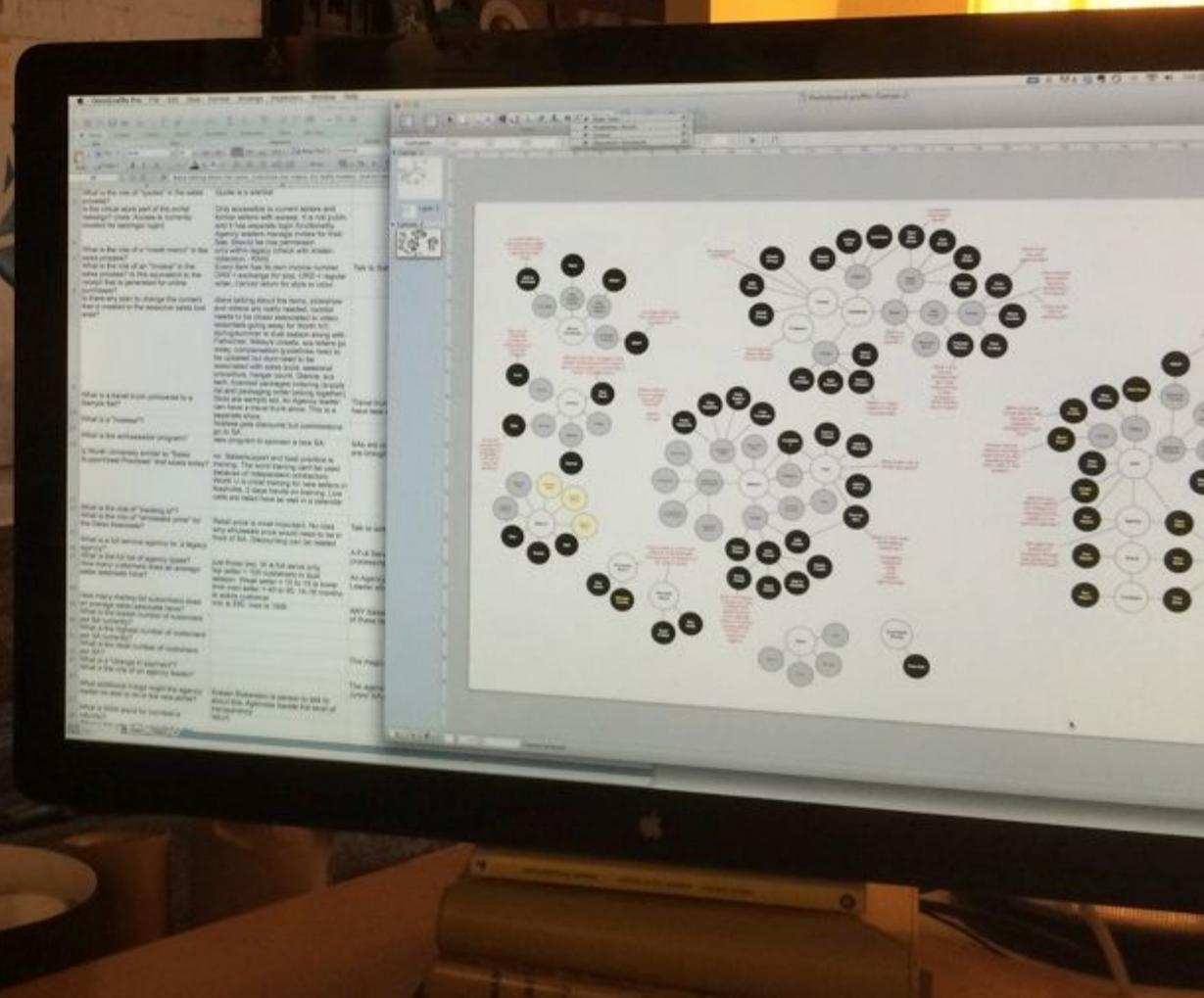


Foot Locker

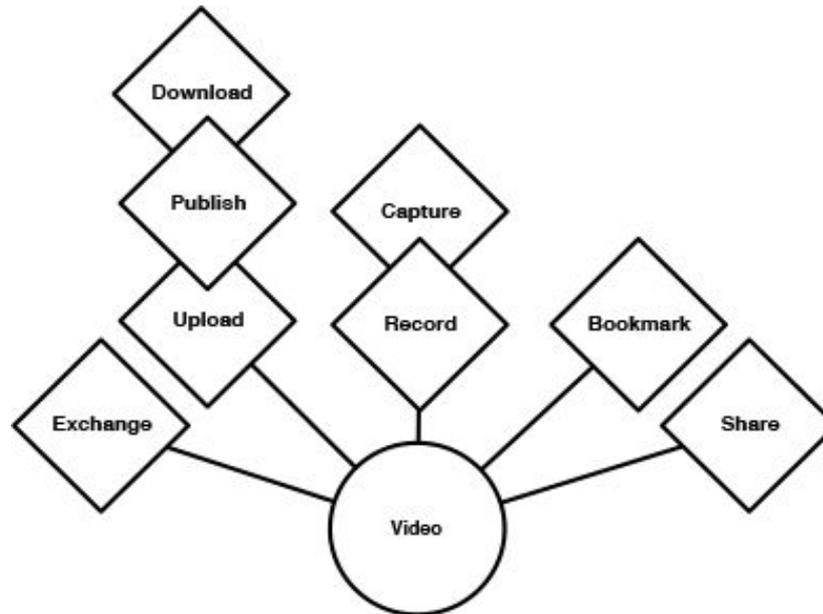
bloomingdale's



Deciding how many things (nouns)
you have is the first step.



With nouns established, verbs are next. Watch out, synonyms are even more common here.



On Nouns & Verbs

“How many *likes*
did we get?”

“I *liked* your
post”

“...*likes* for *likes*”

Nouns

=

**Objects &
Concepts**

Verbs

=

**Actions &
Processes**

Warning:

**Verbs often
make Nouns**

What is a controlled vocabulary?

A controlled vocabulary is the resulting documentation used to distribute the ontological decisions that have been made.

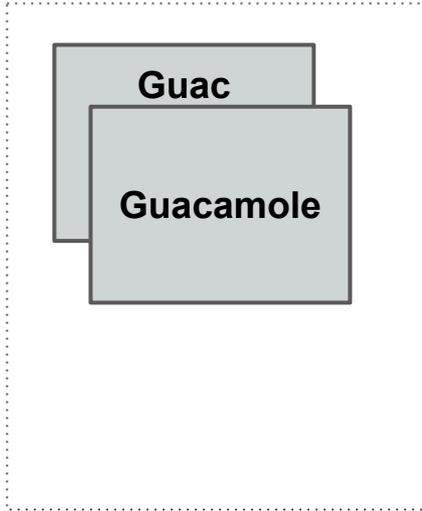
Term	Definition & Rules	Myths, Synonyms and History
Information architecture	<p>As an object: The way we arrange the parts of something to make it understandable as a whole</p> <p>As a practice: The act of deciding how the pieces of a whole should be arranged to best communicate to intended users.</p> <ul style="list-style-type: none">• Can be abbreviated as IA, never I.A.• Not to be used as a pronoun (capitalised)	<p>This term has been overly associated with website navigation design.</p> <p>This term is often synonymised with user experience (UX) design or information design.</p>

Definitions are made of more words!

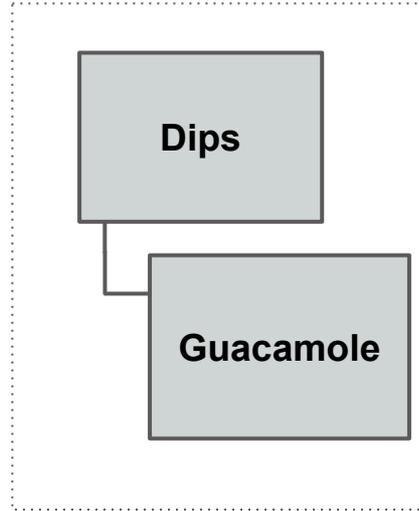
- **Flow:** Periods of time established to stagger the availability of **styles** and **silhouettes** within a **season**
 - **Style:** A group of products that share the same design but is offered in a variety of colors
 - **Season:** Period of time within the year where certain products are sold in support of sport and weather trends. There are four seasons (Fall, Holiday, Spring and Summer)
 - **Silhouette:** Refers to the cut of a product. Used as more detailed level of **Silhouette Type**. *(Example: Tank top is a Silhouette within the silhouette type tops)*
 - **Silhouette Type:** A logical grouping of silhouettes based upon the part of the body or context where it is worn/used *(Example: Eye Wear, Golf Clubs, Tops)*

... those words may also need to be defined.

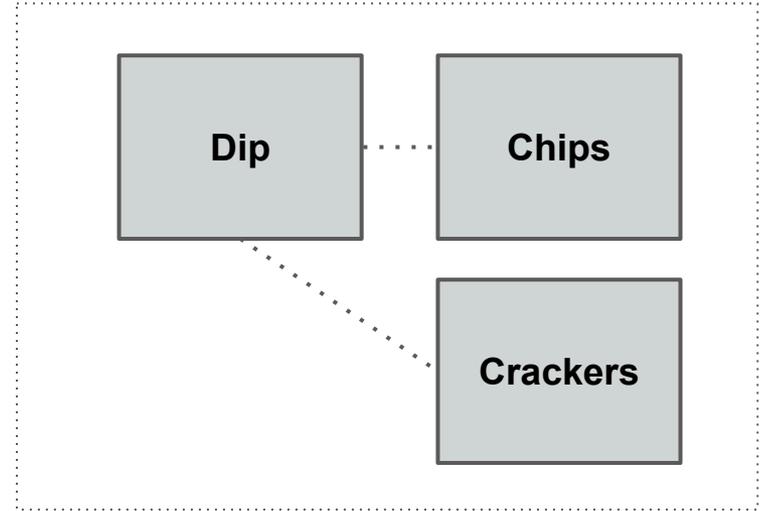
Define Relationships.



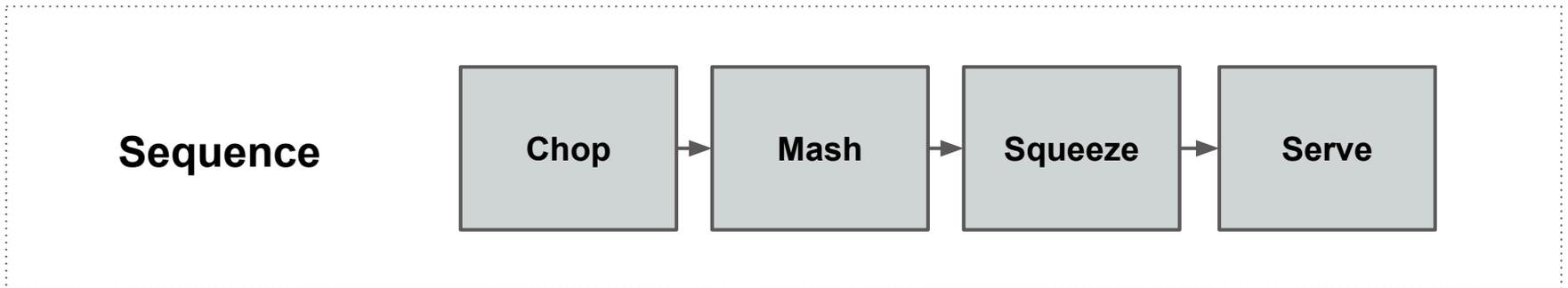
Equivalence



Hierarchical



Associative



Sequence

Exercise

Work with a partner to make a controlled vocabulary for a favorite hobby or sport.

1. Define the nouns/objects
2. Identify any synonyms
3. Highlight and define other nouns within the definitions.

Term	Definition	Synonyms
Bicycle (noun)	A vehicle composed of two wheels held in a frame one behind the other, propelled by pedals and steered with handlebars attached to the front wheel.	Bike, Cycle
Wheel (noun)	A circular object that revolves on an axle and is fixed below a vehicle or other object to enable it to move easily over the ground.	

5 things you learned about **ontology**

1. Meaning can be slippery to talk about but understanding perception is essential to communication.
2. A lack of focusing on language can cause confusion as well as scope creep
3. Nouns are best considered before verbs
4. When used at all, synonyms should be chosen very purposefully and always defined clearly
5. Controlled vocabularies aren't just for software, they are essential for many complex projects

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The Toxins That Threaten Our Brains

By James Hamblin



Making the Big Bang Seem Human

By Megan Garber



The Trains That Took Jews to Their Deaths

By Emma Green



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The Power of Failing

The Engineering of the Chain Restaurant Menu

At IHOP and Applebee's, menus are sales documents. And

MEGAN GARBER | MAR 12 2014, 10:42 AM ET

808

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“Perhaps the most important change from the previous menu, though, was a grouping system that categorized food items into neat culinary taxonomies: pancakes on this page, omelettes on this one, etc.”



A taxonomy of waffles, color-coded and laminated (Megan Garber)

IHOP credits its new menu design for a **3.6%** jump in same-store sales

New

Old



Customers found it cluttered and hard to navigate

Chat bubbles evoke the digital age. Very modern

New "Add a Side" boxes entice add-ons

A photo next to each item holds the diner's attention

There was so much text on the old menu



Color-coding makes it easier to flip through the menu and leads to more orders from the middle and back pages

Just 140 items, down from 180

To make better use of the bottom of the page, food safety disclaimers now share the space with photos of new items and dishes the restaurant wants to promote



"Eyebrows" for more descriptiveness

For boomers, the "55+ menu" gets its own page

And for kids, a more playful design with colorful text and illustrations

Sales are up at breakfast, lunch, and dinner





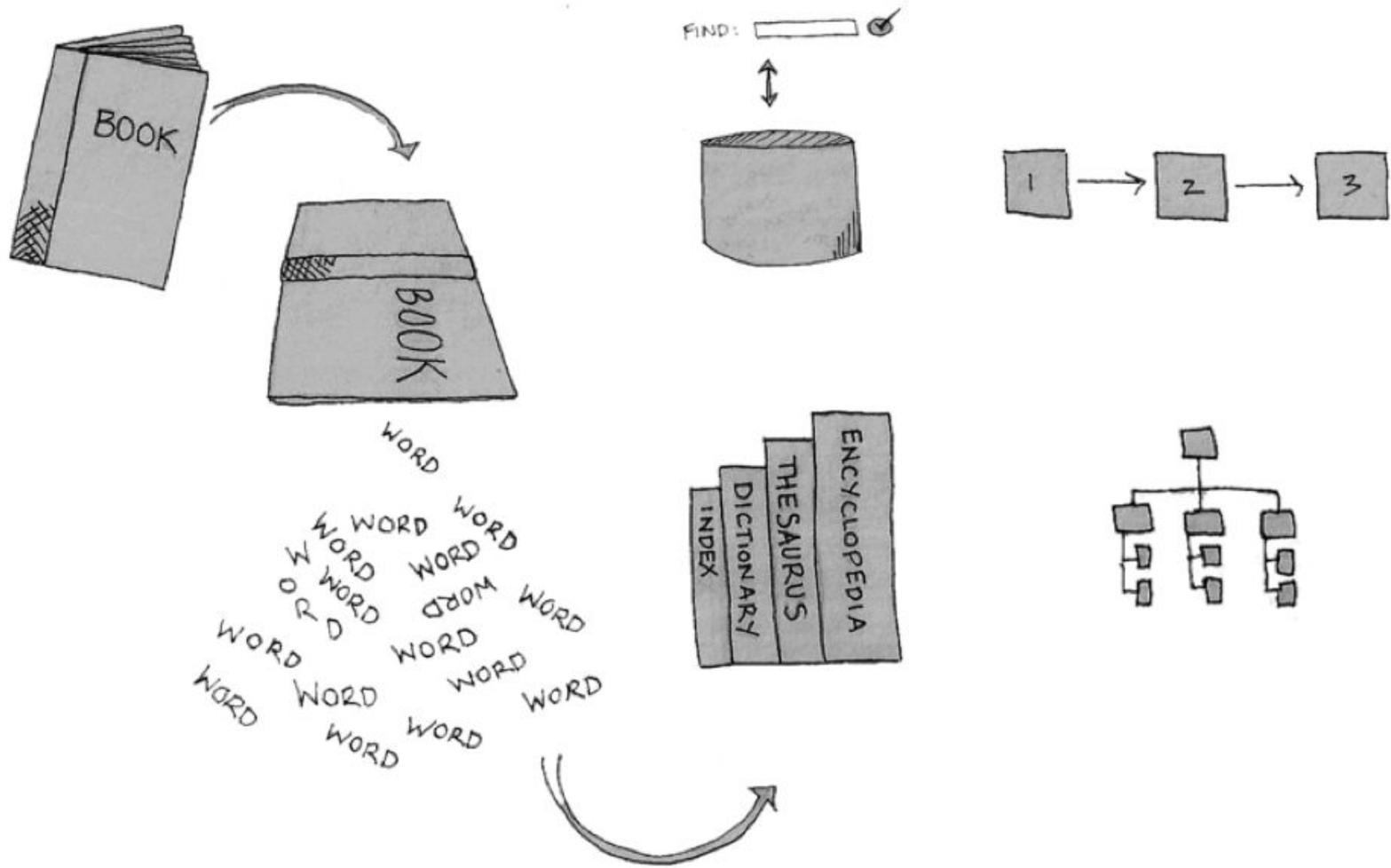
Him: “Michael Jackson goes under “M” right”

Me: :/

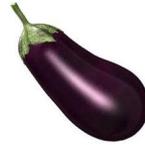
**Organising things
isn't the hard part.**

Agreeing is the hard part.

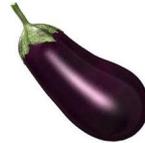
Content + Structure = Intent



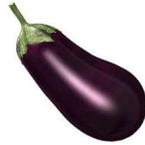
Individual Exercise: How would you organise this produce in your own kitchen?



Partner Exercise: How would you organise this produce into categories for a grocery ordering website?



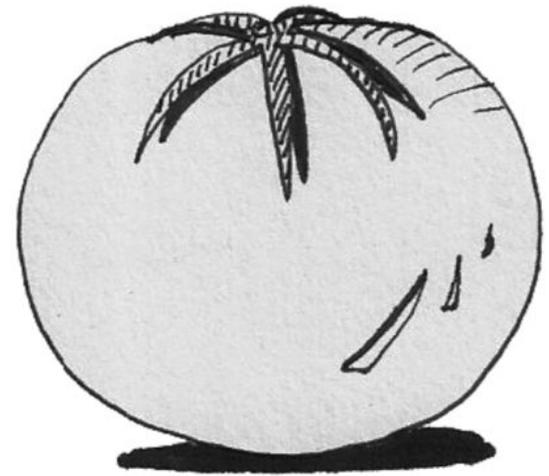
Group Exercise: Now test your categories on another team



**The way you
choose to organise
your vegetables
says something
about what kind of
store you are.**

“It takes knowledge to know that a tomato is a fruit, and wisdom not to put it in a fruit salad.”

– Miles Kington



Mental Models Matter Most

A mental model is an explanation for the way someone makes sense of something.

These models of perception shape our behaviour and how we relate to information that we encounter.

Denotation vs. Connotation

The strict definition is not necessarily what the user has in their mental model.

Forcing our model or the strict definition or classification of something on other people is not often an effective solution.

What category does this go in?





EMAIL SIGN-UP
DWR BLOG | DESIGN NOTES
REQUEST A CATALOG
DWR 3-D ROOM PLANNER
TRADE & CONTRACT

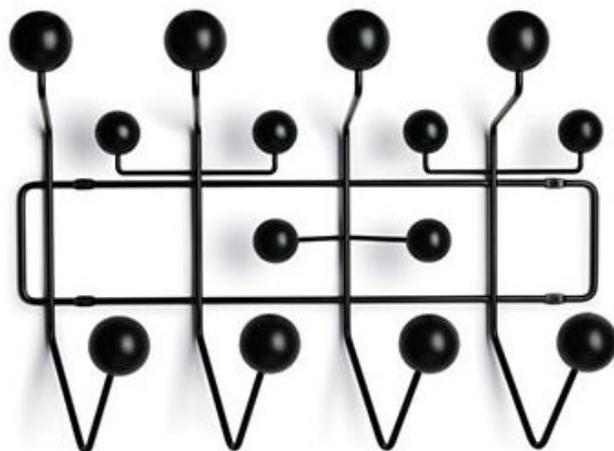
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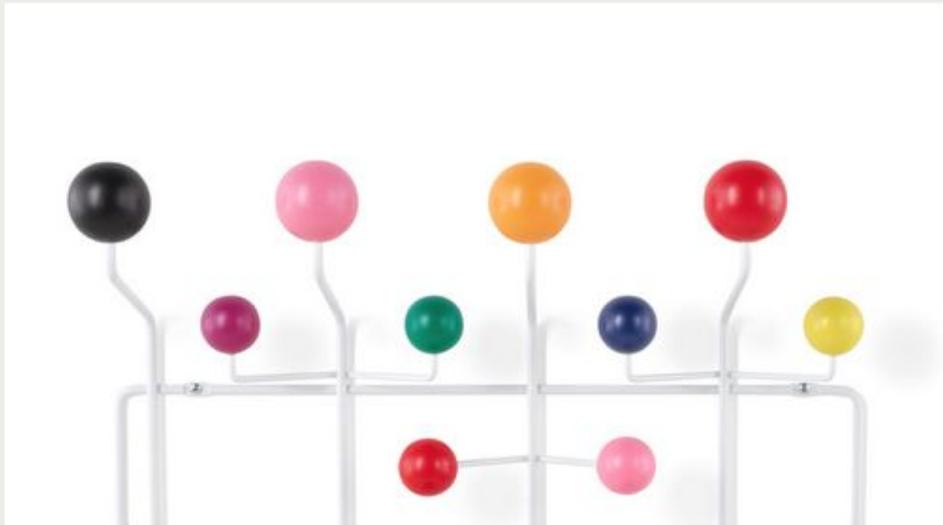
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HANG-IT-ALL





HermanMiller Store

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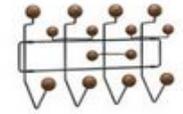
Lighting



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- Ardea Personal Light
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Girard Throws

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Five ways to organise anything

- **Location:** Rome is a city in Italy
- **Alphabetical:** Rome starts with “R”
- **Time:** Rome started in 753 BC
- **Category:** Rome is a Romantic city
- **Hierarchy:** Rome is within Italy, which is within Europe, which is within the Eastern and Northern Hemisphere

or L.A.T.C.H for short.

L.A.T.C.H + Facets

Facets are the individual pieces of knowledge we have about the thing we are organising.

What facets could we think of for a vinyl record?

vs.

What facets could we think of for a piece of produce?

10 facets of a vegetable

1. **Color**
2. **Texture**
3. **Taste**
4. **Season Planted**
5. **Season Harvested**
6. **Soil Grown In**
7. **Class**
8. **Subclass**
9. **Countries Consumed in**
10. **Cost by Country**



20 ways to organize a box of vegetables

1. By cost at the grocery in the USA (Location)
2. By cost at the grocery in the UK (Location)
3. By countries it is eaten in (Location)
4. By first letter scientific names (Alphabetical)
5. By first letter popular names (Alphabetical)
6. By first letter cultural names (Alphabetical)
7. By seasonality of harvest (Time)
8. By length of season (Time)
9. By cooking time (Time)
10. By popularity today (Time)
11. By popularity 100 years ago (Time)
12. By color (Category)
13. By taste (Category)
14. By texture (Category)
15. By size (Category)
16. By growing style (Hierarchy)
17. By climate (Hierarchy)
18. By type (Hierarchy)
19. By soil type (Hierarchy)
20. By best storing technique (Hierarchy)



Discover beautiful things on Amazon, updated daily

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amazon Prime

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B

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1-24 of 21,229 results for Electronics : Computers & Accessories : Laptops : "laptop"

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< Any Category
< Electronics
< Computers & Accessories

Laptops

Delivery Day

Get It Today
 Get It by Tomorrow

Amazon Prime

Prime
 Prime | FREE One-Day

Computer Graphics Processor

NVIDIA GeForce (933)
 ATI Radeon (579)
 Intel Integrated Graphics (77)
 NVIDIA Quadro (154)

Laptop Computer Weight

Under 3 Pounds (1,159)
 3 to 4.9 Pounds (3,003)
 5 to 7.9 Pounds (6,458)
 8 Pounds & Over (2,831)

Hard Disk Size

2 TB & Up (240)
 1.5 TB (19)
 1 TB (3,022)
 501 to 999 GB (1,477)
 321 to 500 GB (4,965)
 121 to 320 GB (5,319)
 81 to 120 GB (269)
 80 GB & Under (1,301)

Laptop Computer Video Output

VGA (135)



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5 WAYS WE CLASSIFY THINGS...

- **Personality:** What is it *about*? “DIPS”
- **Matter:** What is it (not) made of? “VEGETARIAN, GLUTEN FREE”
- **Energy:** What are the related processes or activities? “RECIPES”
- **Space:** Where does it exist or happen? “MEXICAN CUISINE”
- **Time:** When does it exist or happen? “APPETIZERS”

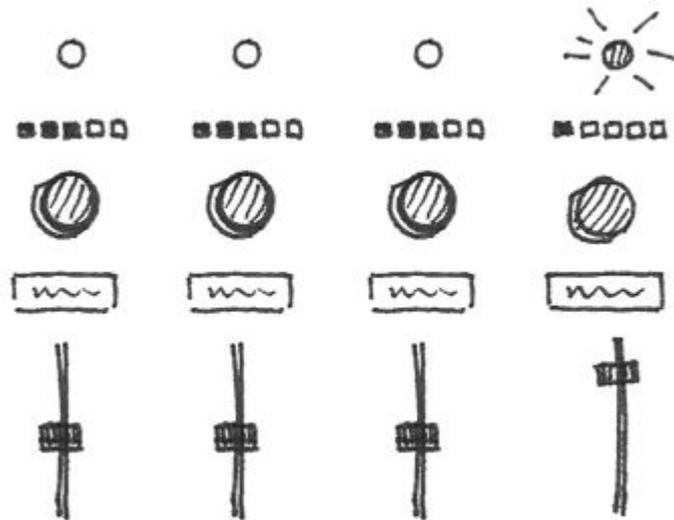
**There is no
right or wrong
way to architect your
information.**

**There is no
academically correct
way to architect your
information.**

There is no
theoretically correct
way to architect your
information.

**There is no
politically correct
way to architect your
information.**

All you can do is measure your results against your intent.

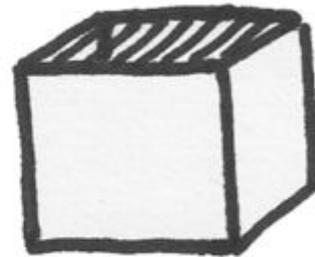


Exactitude vs. Ambiguity

Labels and classification schemes can be based on more exact or ambiguous judgements.



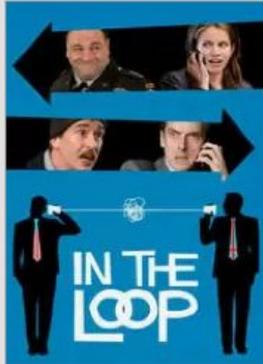
**MOVIE
GENRES**



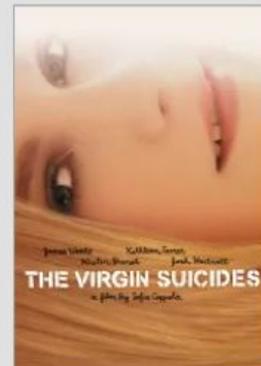
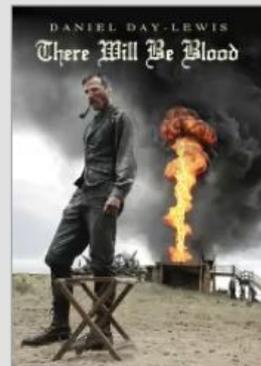
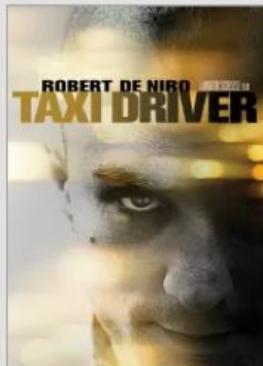
**ZIPCODES
IN NYC**

Ambiguity can be delightful

Witty Movies



Visually-striking Movies



But explanation might be needed.

<input type="radio"/>	<input type="radio"/>		Need some examples?
<input type="radio"/>	<input type="radio"/>		Need some examples?
<input checked="" type="radio"/>	<input type="radio"/>	Sometimes	Need some examples?
<input type="radio"/>	<input checked="" type="radio"/>	Often	<u>Need some examples?</u>
<input type="radio"/>	<input type="radio"/>		
<input type="radio"/>	<input checked="" type="radio"/>	Often	
<input type="radio"/>	<input type="radio"/>		
<input type="radio"/>	<input checked="" type="radio"/>	Often	
<input type="radio"/>	<input type="radio"/>		
<input type="radio"/>	<input checked="" type="radio"/>	Often	Need some examples?
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<input type="radio"/>	<input type="radio"/>		

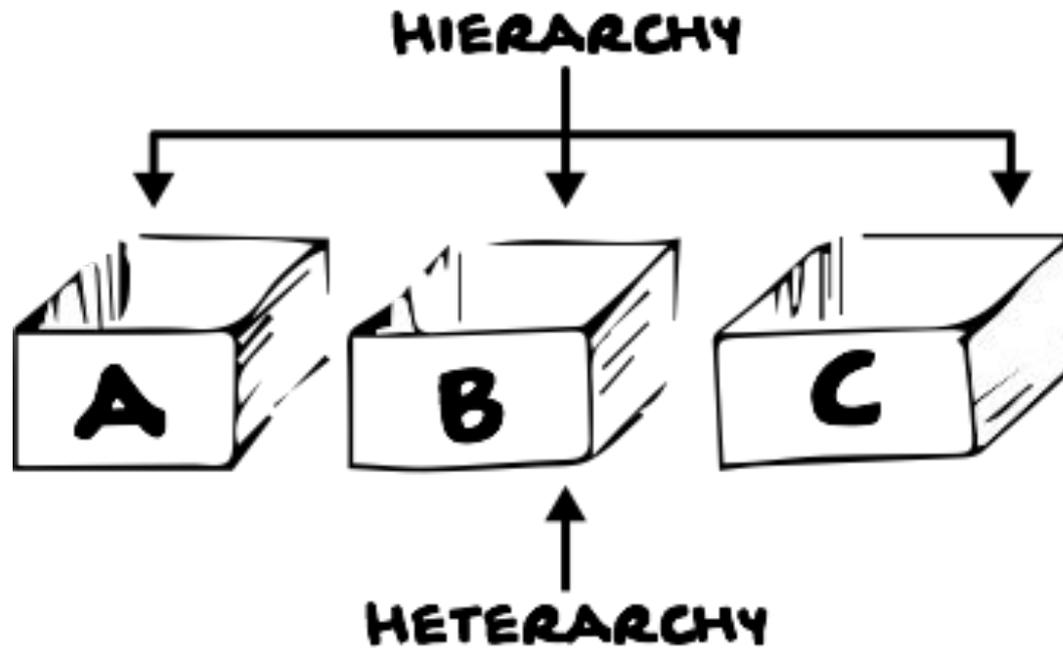
Cerebral



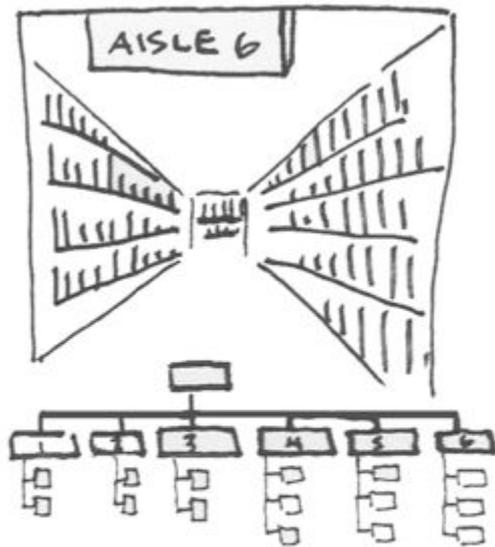
The image shows a grid of six movie posters arranged in two rows of three. The top row includes 'House of Cards', 'An Inconvenient Truth', and 'Into the Wild'. The bottom row includes 'Syriana', 'The Royal Tenenbaums', and 'Food, Inc.'. The posters are displayed within a white box with a drop shadow, which is positioned over the 'Often' row of the table above.

Common Taxonomic Patterns

Heterarchy vs. Hierarchy

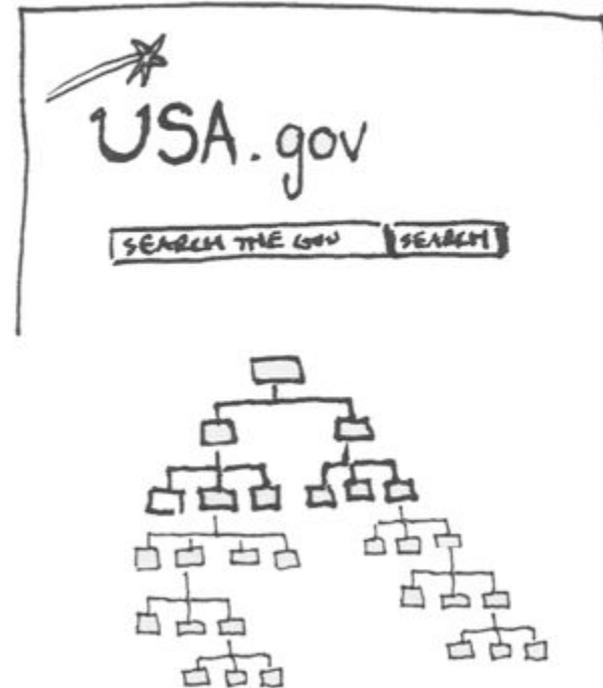


Types of Hierarchy

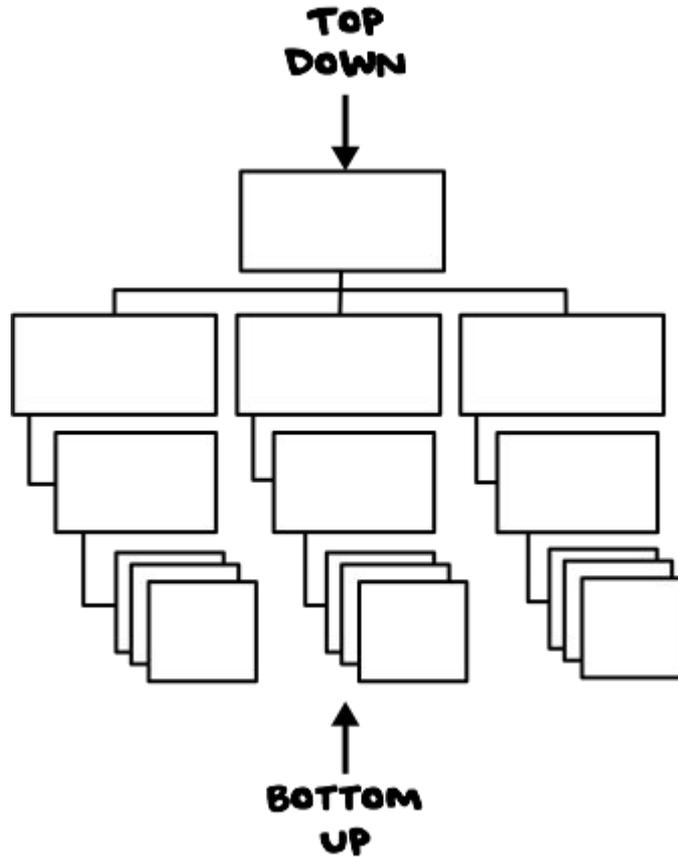


BROAD & SHALLOW

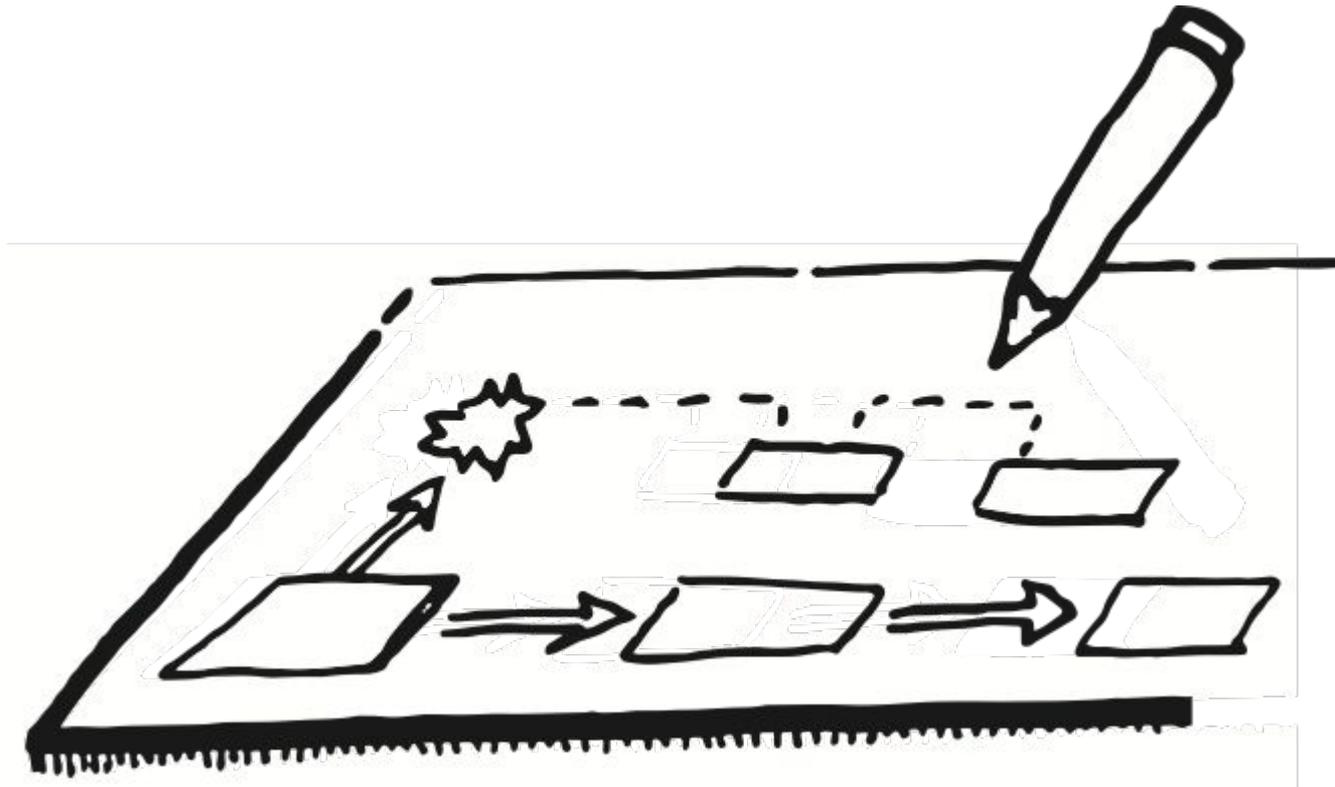
NARROW & DEEP



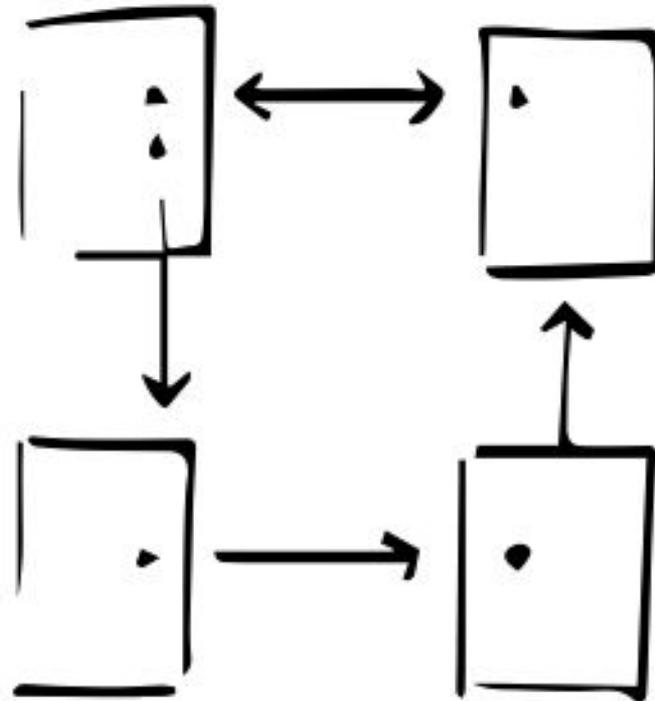
Top Down vs. Bottom Up



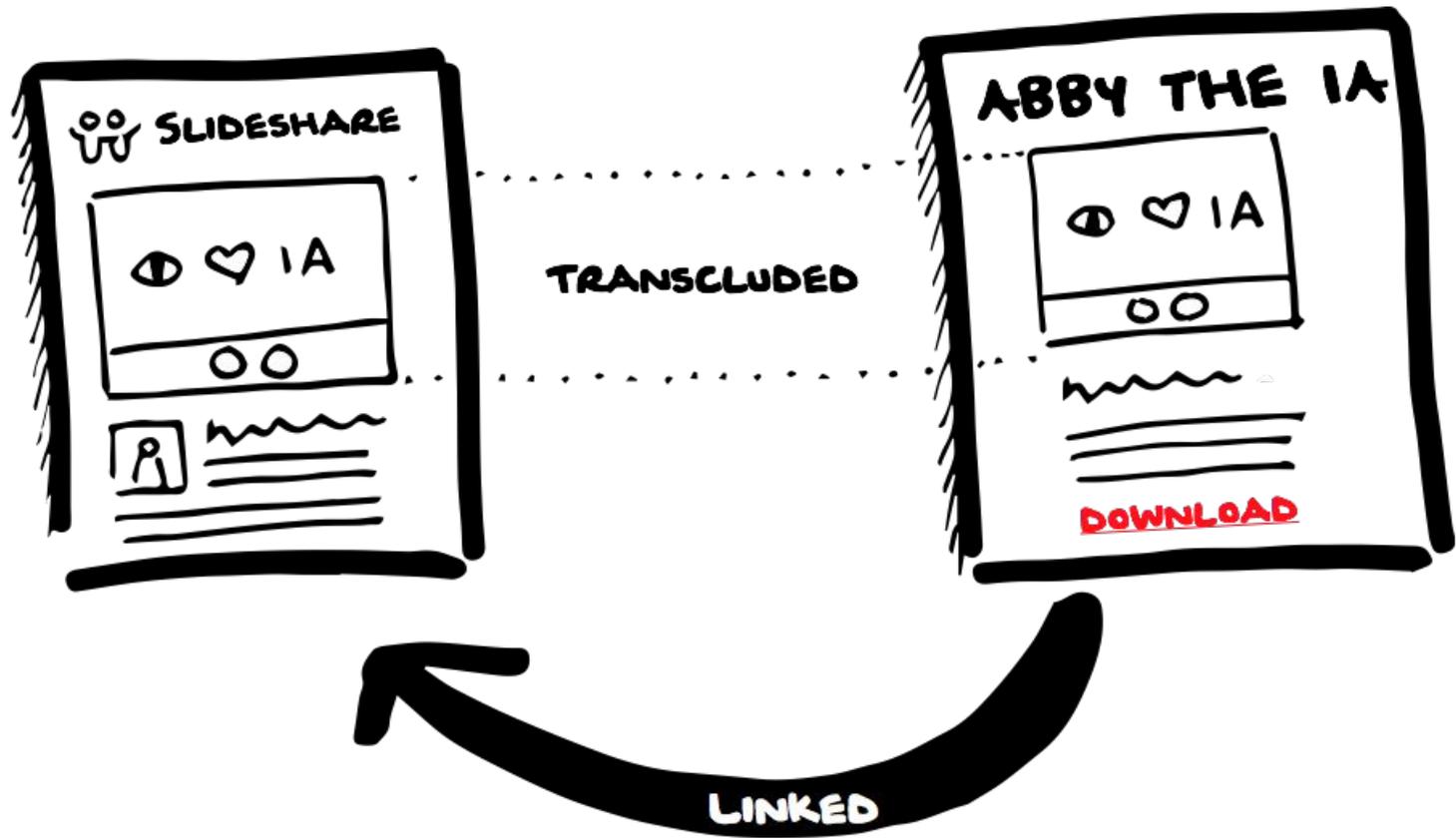
Flow / Sequence



Hypertext



Transclusion





**ONE IS NO LESS
COMPLEX THAN THE
OTHER.**

**Most contexts require
a mix of these patterns
uniquely arranged to
serve an intent.**

ABOUT

[The Memorial Names Layout](#)

[FIND A NAME ON THE MEMORIAL](#) 



REQUESTED ADJACENCIES

Within these groups, names are arranged by affiliation, so that the employees of a company or the crew of a flight are together. The next-of-kin of the victims and surviving colleagues made additional requests for specific names to be inscribed next to one another.

Some requests were between relatives and friends; others were between people who had just met, but who responded together as events unfolded.

This design allows the names of family, friends, and colleagues to be together, as they lived and died. The requested adjacencies reflected on the Memorial make it unique from any other in existence.



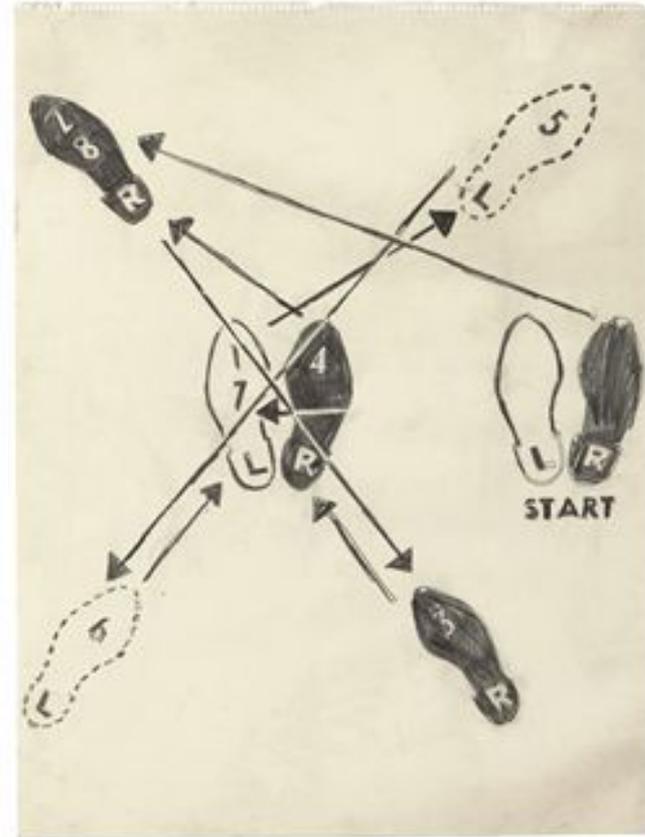
[NEXT](#)

5 things you learned about **taxonomy**

1. Organising things isn't the hard part. Agreeing how to organise things is the hard part.
2. The way you choose to organise something says something about you. Taxonomic choices can be extremely powerful.
3. There are five ways to organise anything, which really might as well mean a million given the addition of facets.
4. There is no right or wrong way to architect your information. There is only what gets you what you intended and that which doesn't get you what you intended.
5. No two information architectures are the same.

Choreography

4



Andy Warhol (1928-1987)
Dance Diagram

get the computing power of
SoftLayer bare metal

DESIGN | **January**

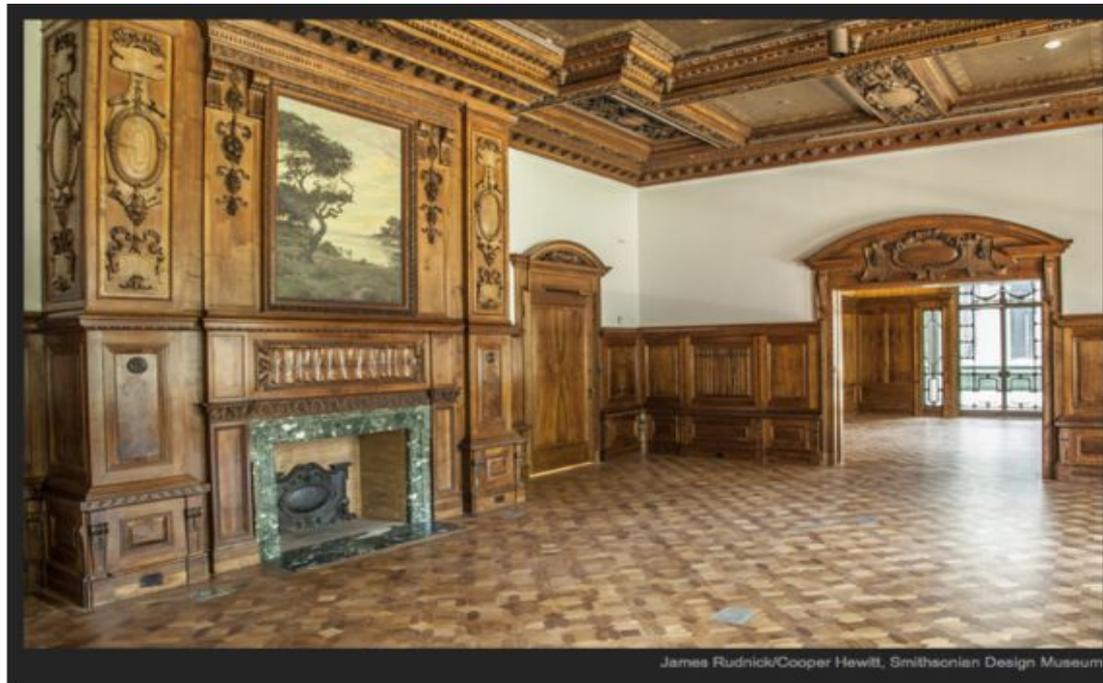
An Ingenious Museum Design That Turns Visitors Into Creators

BY MARGARET RHODES 04.20.14 | 6:30 AM | [PERMALINK](#)

Share 304 Tweet 406 X+1 208 LinkedIn Share 177 Pin It



1/4 With that, users can download images and sketch out design ideas with them. The Immersion Room, seen here, lets visitors virtually design an entire room using the Cooper Hewitt's archive of wall coverings. [COOPER HEWITT, SMITHSONIAN DESIGN MUSEUM](#)



James Rudnick/Cooper Hewitt, Smithsonian Design Museum

COOPER
HEWITT

SEARCH MENU

DESIGNING THE PEN



Rendering courtesy of Pentagram.

OPENING EXHIBITIONS

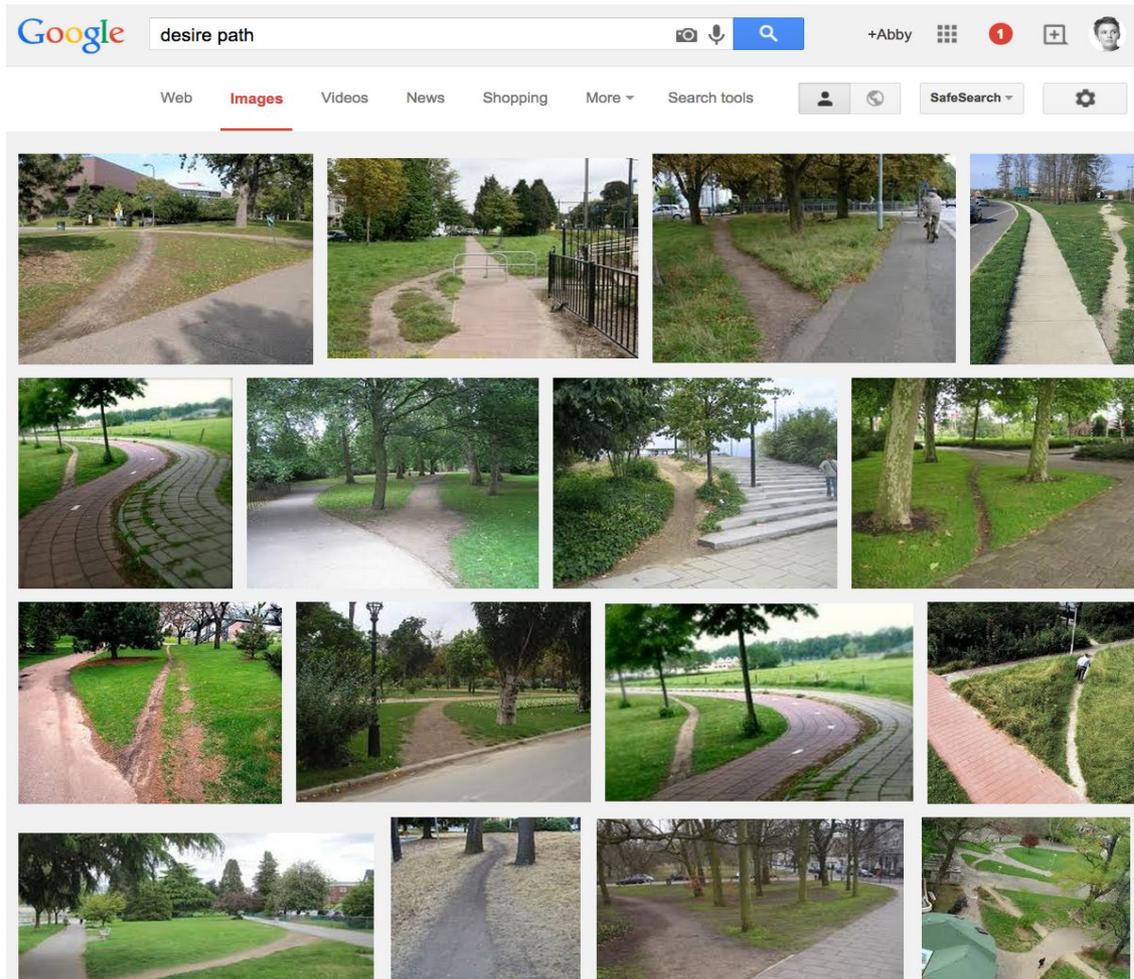
THE NEW EXPERIENCE

DESIGNING THE PEN

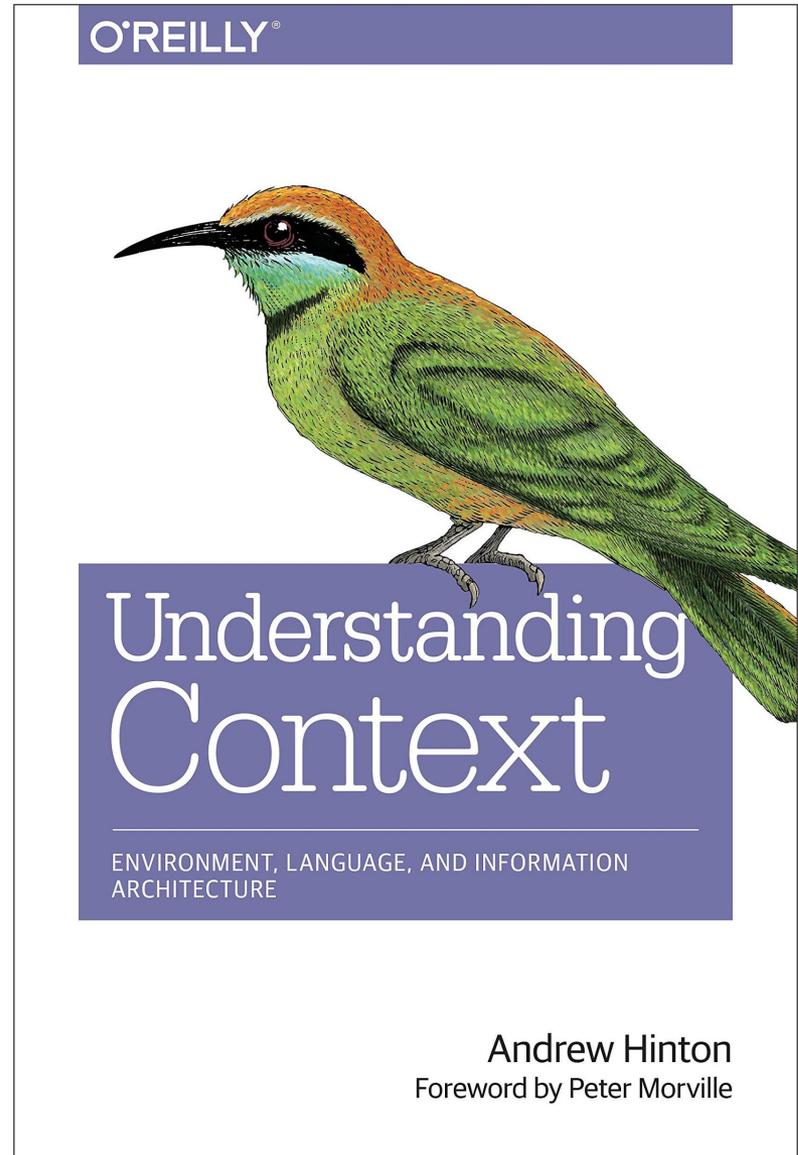
THE PEN

DESIGNING THE PEN

Without constraint users will move where and when they want.



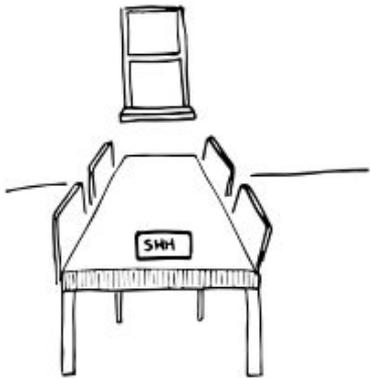
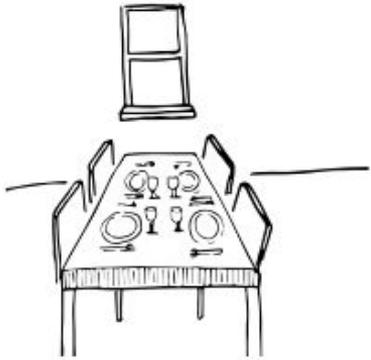
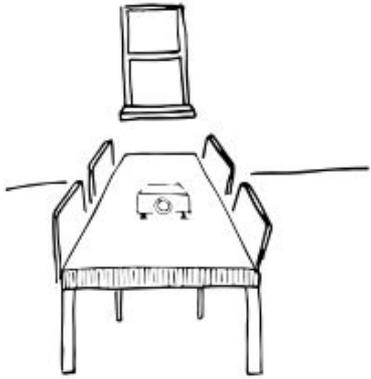
“The ‘rules’
make dynamic
systems out of
labels and
relationships.”



We need rules to constrain the dance users do across contexts and channels.

- **Context:** the circumstances that form the setting for an interaction
- **Channel:** A medium for communication or the passage of information

Placemaking is the art of turning a space into a place by arranging it so people know what they ought to do.



Ought do; Not want to do.

The screenshot displays the Instagram web interface. On the left, a post by user 'katiliew' (posted 50 seconds ago) features a photo of a dog with a blue ring in its mouth. The caption reads: "some days you need to leave a little early to let the dogs out and this happens". Below the caption is a comment from 'katiliew @cdbynom' and a text input field for a new comment. To the right of the post is a vertical sidebar for the user 'abbytheia', containing a 'YOUR ACCOUNT' menu with options: 'Edit Profile', 'Change Password', 'Manage Applications', 'Badges', and 'Log Out'. The main content area on the right is the 'Edit Profile' form, which includes fields for Name (Abby Covert), Email (abbycovert@gmail.com), Username (abbytheia), Phone number (+1 617-504-2030), Sex (a dropdown menu), Bio (Independent Information Architect. I aim to make the unclear, be clear.), and Website (http://abbytheia.com). There is a 'Submit' button and a link for 'I'd like to delete my account'. At the bottom of the page, a footer contains links for ABOUT US, SUPPORT, BLOG, PRESS, API, JOBS, PRIVACY, TERMS, and a copyright notice for © 2015 INSTAGRAM.

Exercise

Compare [instagram.com](https://www.instagram.com) and [instagram's](https://www.instagram.com) mobile app. Make a list of all the choreographic differences you find.

Look for:

- Functionality that differs
- Language that differs

5 things you learned about choreography

1. Without constraint, users will go where and when they want to.
2. Rules determine appropriate difference across channels and contexts of use.
3. Placemaking is the art of arranging things so the intended use of a place is clear.
4. We optimise for what users ought to do, not what they want to do.
5. Choreography is not simple, but without it messes thrive.

Q & A

(Go ahead, ask me a toughie)