

Machine-enabled noun foraging for OOUX

Rik Williams, UX Architect, Moorfields Eye Hospital

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

Edit
Close

Rik Williams
Information Architecture

Object Discovery

Using software to machine forage nouns

I've seen this pop-up on [twitter](#), via [Imogen Levy](#), and have given it quick (ca.30min) spin. I've heard that [Zac Zimmerlin](#) might have had a stab at this too?

Original thread, OOUX Forum 2021

Used in two organisations, so far...



2021

2022

Structure

Parts of Speech tagging

Noun sources

When machine foraging is most useful

Practical — my workflow, so far...

Merits

Limits

Discussion

Parts of Speech Tagging

...Or 'grammatical tagging'

“The process of **marking-up a word in a text (corpus) as it corresponds to a particular part of speech, based on both its definition and its context.”**

Wikipedia

“Automatically finding + tagging nouns in text-based data using computational linguistic algorithms.”

Me, on PoS Tagging as applied to OOUX

Enter a **complete sentence** (no single words!) and click at "POS-tag!". The tagging works better when grammar and orthography are correct.

Text:

can mean for everyone involved.

I'm not even kidding about my memory problems, it's getting worse. I've forgotten a lot of things from my childhood + even things recently - Twitter

I'm suffering from memory loss. I know things and I can see it in my mind. I can't reach it - Twitter

"My mother was diagnosed with early dementia last year. She doesn't fall down. Or slur her words. But perhaps hers is a rare case. She has decided she does not have it, has stopped all medication and is taking vitamins. God bless my father." - Boards

"I was the first to make comment to my parents and grandparents that something was wrong, and they told me that they were just strange people because they were so old --when patients have cognitive problems, the family is generally very slow to accept that something is wrong, and doubly so in families like mine where everyone is sort of strange to begin with." - Boards

"Lots of people still live quite full lives with early stage dementia, and will often go to great lengths to hide their worsening symptoms put of fear of ending up in an aged care facility. His family aren't to blame, this is just very very sad" - Boards

"My mother in law has been recently diagnosed with mixed dementia.

I'm looking for advice on how to deal with this when she is

Adjective

Adverb

Conjunction

Determiner

Noun

Number

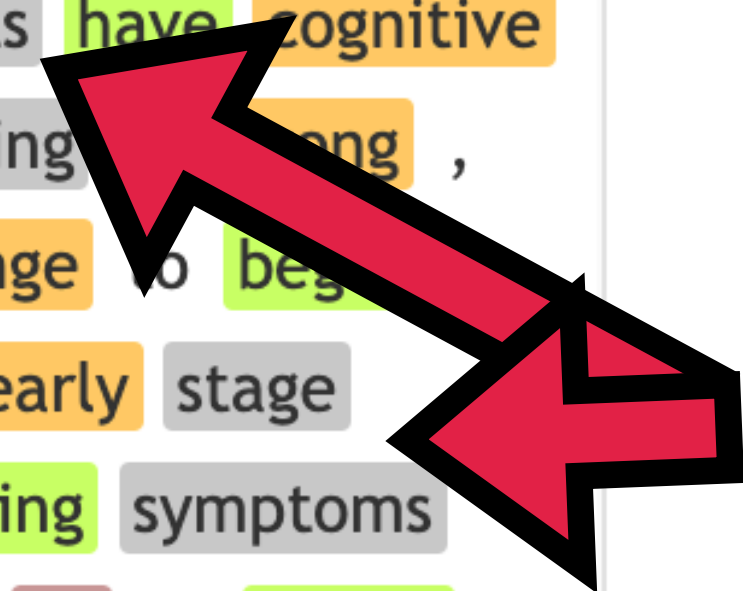
Preposition

Pronoun

Verb

God bless my father . “ - Boards ” I was the first to make comment to my parents and grandparents that something was wrong , and they told me that they were just strange people because they were so old -- when patients have cognitive problems , the family is generally very slow to accept that something is wrong , and doubly so in families like mine where everyone is sort of strange to begin with . “ - Boards “ Lots of people still live quite full lives with early stage dementia , and will often go to great lengths to hide their worsening symptoms out of fear of ending up in an aged care facility . His family are n't to blame , this is just very very sad ” - Boards “ My mother in law has been recently been diagnosed with mixed dementia . I 'm looking for advice on how to deal with this when she is in denial about the diagnosis . Generally I tend not to mention it and listen to the stories as if I 've never heard them . But now she has hospital appointments to attend . I thought now there was a diagnosis that this would come up on any medical notes . This was not the case at the last appointment . Feel like I 'm trapped as I do n't want to upset her but the medics are not having the right information as she will automatically say no to any question . Any ideas on how I deal with this ? “ - Talking Point When care home is feared the #pwd will try to hide problems unless you reassure them they wo n't be forced into care . #Alzheimers #geriatrics - Twitter GETTING A DIAGNOSIS Getting a diagnosis can often be a long and difficult process for most and experiences can

- Adjective
- Adverb
- Conjunction
- Determiner
- Noun
- Number
- Preposition
- Pronoun
- Verb



Noun sources

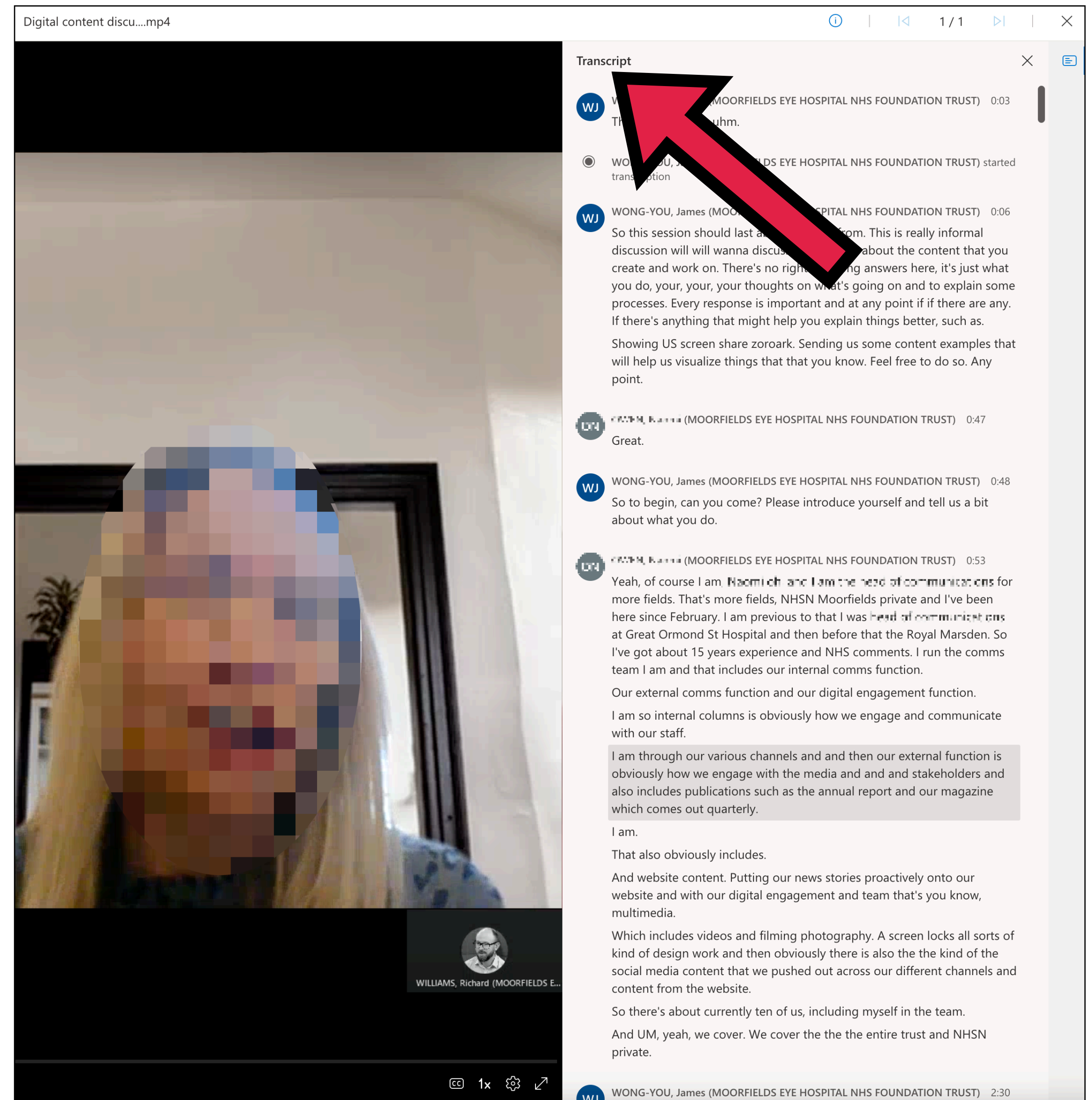
...*'text-based data'*... 🤔🤨

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.



The screenshot shows a Microsoft Teams meeting interface. The main video area displays a blurred participant. On the right, a 'Transcript' panel is open, showing a list of messages with timestamps. A red arrow points to the first message in the transcript. The transcript text includes:

WJ WONG-YOU, James (MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST) 0:03
The uhm.

WONG-YOU, James (MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST) started transcription

WJ WONG-YOU, James (MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST) 0:06
So this session should last a bit longer. This is really informal discussion will will wanna discuss about the content that you create and work on. There's no right or wrong answers here, it's just what you do, your, your, your thoughts on what's going on and to explain some processes. Every response is important and at any point if there are any. If there's anything that might help you explain things better, such as.

Showing US screen share zoroark. Sending us some content examples that will help us visualize things that that you know. Feel free to do so. Any point.

WJ WONG-YOU, James (MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST) 0:47
Great.

WJ WONG-YOU, James (MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST) 0:48
So to begin, can you come? Please introduce yourself and tell us a bit about what you do.

WJ WONG-YOU, James (MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST) 0:53
Yeah, of course I am. Naomich and I am the head of communications for more fields. That's more fields, NHSN Moorfields private and I've been here since February. I am previous to that I was head of communications at Great Ormond St Hospital and then before that the Royal Marsden. So I've got about 15 years experience and NHS comments. I run the comms team I am and that includes our internal comms function.

Our external comms function and our digital engagement function. I am so internal columns is obviously how we engage and communicate with our staff.

I am through our various channels and and then our external function is obviously how we engage with the media and and stakeholders and also includes publications such as the annual report and our magazine which comes out quarterly.

I am.

That also obviously includes.

And website content. Putting our news stories proactively onto our website and with our digital engagement and team that's you know, multimedia.

Which includes videos and filming photography. A screen locks all sorts of kind of design work and then obviously there is also the the kind of the social media content that we pushed out across our different channels and content from the website.

So there's about currently ten of us, including myself in the team.

And UM, yeah, we cover. We cover the the the entire trust and NHSN private.

WJ WONG-YOU, James (MOORFIELDS EYE HOSPITAL NHS FOUNDATION TRUST) 2:30

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

...

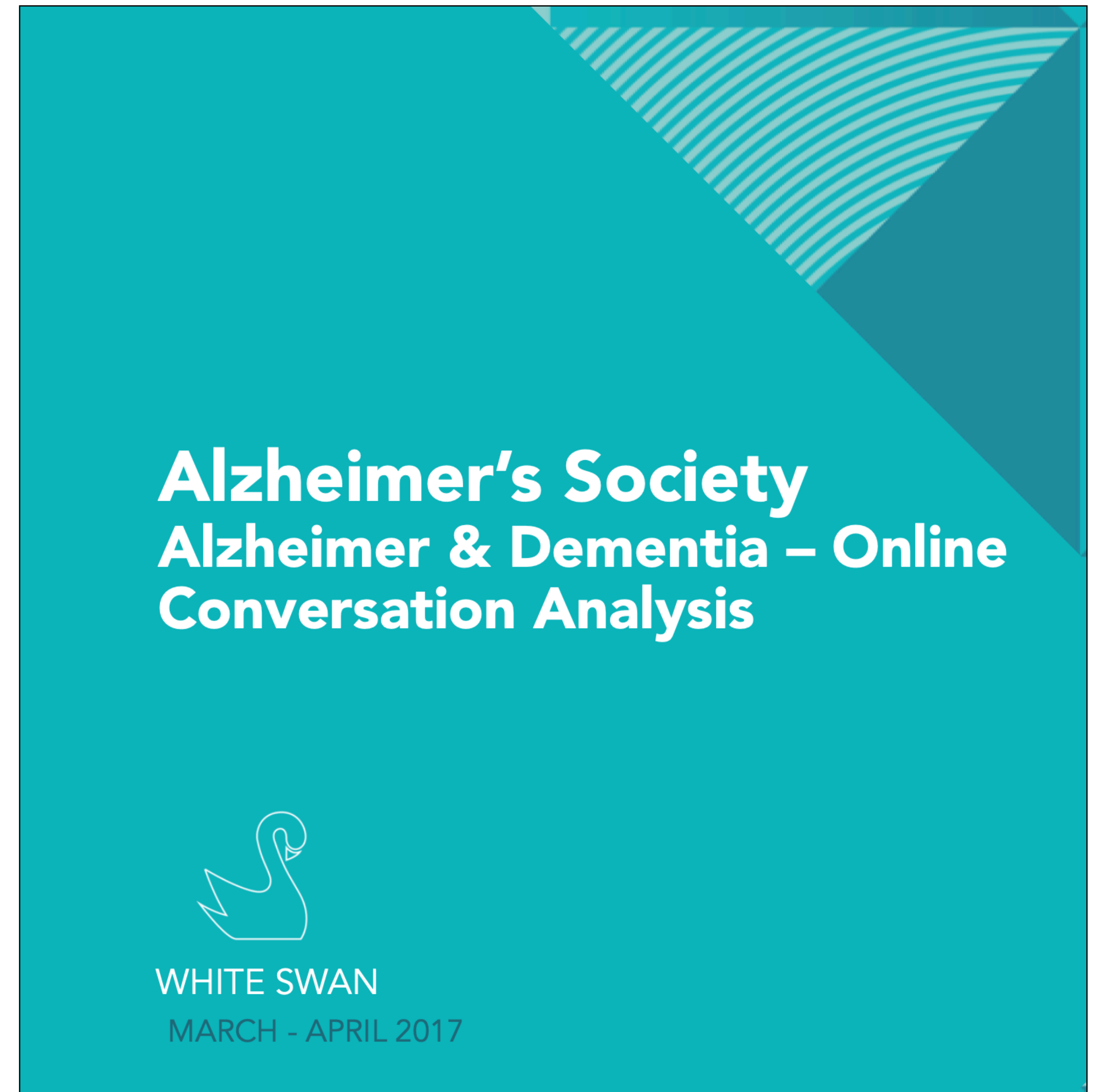


An example of a single domain definitive data source, of a type typically served via PDF

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 they 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.

The screenshot displays a Salesforce CRM interface for a dementia service. The user profile is for Greta Green (P00833529 - Person with Dementia). The interface includes a navigation bar with options like Home, EA Dashboard, Find Referrals, and Service Usage. A sidebar on the left contains a 'notterbox' widget with a keypad and a 'Recycle Bin' button. The main content area features several sections: 'All about me' with text input fields for hobbies and general wellbeing; 'My Household' with dropdown menus for living arrangements and household members; 'My Demographics' with dropdown menus for ethnicity, marital status, and sexual orientation; and 'My Relationships' with a 'New Relationship' button. The page also includes a search bar, a user profile for Andy Rouse, and a footer with copyright information.

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.

Address	Title 1	Title 1 Length	Meta Description 1	Meta Description 1	H1-1
/kitchen-and-food/	Housewares & Home Kitchen Store	48	Shop housewares and home kitchen	154	Kitchen
/kitchen-and-food/waffle-makers/1	Waffle Makers: Belgian, Mini & More	52	Start your day off right with a conveni	157	Waffle Makers
/kitchen-and-food/juicers/1	Healthy Juicers, Juice Extractors and	67	Free Shipping. Create fresh juices, s	152	Juicers & Blender
/kitchen-and-food/cookware-bakeware/	Cookware Crate & Barrel	25	Shop professional grade cookware an	137	Cookware
/kitchen-and-food/coffee-and-tea/	Coffee Pots, Espresso Machines & T	58	Shop for coffee, tea and espresso su	139	Coffee, Espresso
/kitchen-and-food/saucepans-sauciers/1	Saucepans and Sauciers Crate & B	39	In addition to making sauces includin	161	Saucepans & Sau
/kitchen-and-food/coffee-espresso-and-tea/1		0		0	
/kitchen-and-food/pie-bread-cake-pans/1	Pie, Bread and Cake Pans Crate &	41	Expand your baking capabilities with	154	Pie, Bread & Cak
/kitchen-and-food/cookware-by-material/	Cookware by Material Crate & Barre	37	Shop for Cookware by Material at Cra	115	Cookware by Mat
/kitchen-and-food/roasters-lasagna-pans/1	Roasters, Roasting Pans & Lasagna	55	Shop for roasters and lasagna pans a	124	Roasters & Lasag
/kitchen-and-food/espresso-makers/1	Espresso Maker and Espresso Mach	52	Order an espresso maker or an espre	150	Espresso Makers
/kitchen-and-food/kitchen-standing-mats/1	Kitchen Standing Mats Crate & Barr	38	Shop for Kitchen Standing Mats at Cr	116	Kitchen Standing
/kitchen-and-food/colanders-salad-spinners/1	Colanders, Strainers and Salad Spin	56	Shop for colanders and salad spinner	134	Colanders & Sala
/kitchen-and-food/cookware-offers/1		0		0	
/kitchen-and-food/toasters-ovens/1	Toasters and Toaster Ovens Crate &	43	Get free shipping on toasters and toa	156	Toasters & Toaste
/kitchen-and-food/frying-pans-skillets/1	Fry Pans & Skillets: Non-Stick, Steel	61	Round out your cookware collection v	161	Frying Pans & Sk
/kitchen-and-food/gourmet-food-beverages/1	Gourmet Food Gifts Crate & Barrel	35	Find gourmet food gifts at Crate & Ba	127	Gourmet Food, C
/kitchen-and-food/specialty-appliances/1	Specialty Appliances: Slow Cookers	58	Free Shipping. Shop for specialty app	132	Specialty Applian
/kitchen-and-food/cutting-boards/1	Cutting Boards: Wood, Plastic, Epicu	57	Crate & Barrel has high-quality, durat	124	Cutting Boards
/kitchen-and-food/mixing-bowls/1	Mixing Bowls: Glass, Stainless Steel,	62	Shop for mixing bowls at Crate & Bar	141	Mixing Bowls
/kitchen-and-food/knife-sharpener/1	Knife Sharpening. Rods & Sharpener	52	Shop for knife sharpeners at Crate &	137	Knife Sharpeners
/kitchen-and-food/coffee-grinders/1	Coffee Grinders & Burr Mills Crate &	45	Enhance your mornings with coffee g	156	Coffee Grinders
/kitchen-and-food/stock-pots/1	Stock Pots & Soup Pots Crate & Ba	39	Soup's on. Stock pots and soup pots	149	Stock & Soup Pot
/kitchen-and-food/food-processors/1	Food Processors and Choppers Cra	45	From mini choppers to 16 cup food p	152	Food Processors
/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
/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
/kitchen-and-food/cooking-videos/	Build Cooking Skills with Ready Set F	64	Improve your cooking skills while cre	157	Ready Set Prep
/kitchen-and-food/pizza-tools/1	Pizza Tools & Accessories for Pizza	59	With the right pizza tools, making hor	141	Pizza Tools & Ove
/kitchen-and-food/limited-time-offers/		0		0	
/kitchen-and-food/knife-sets/1	Knife Sets: Wusthof, Shun and Globa	53	Free Shipping. Shop for knife sets at	138	Knife Sets
/kitchen-and-food/kitchen-clearance/1		0		0	
/kitchen-and-food/baking-tools-utensils/1		0		0	
/kitchen-and-food/baking-utensils/1	Baking Tools and Utensils Crate & E	42	Shop for baking utensils at Crate & B	153	Baking Tools & Ut
/kitchen-and-food/new-kitchen/1		0		0	
/kitchen-and-food/cutting-board/1		0		0	
/kitchen-and-food/mixers/1	Mixer: Stand and Hand Mixer Crate	44	Get free shipping on food mixers from	144	Mixers & Attachm
/kitchen-and-food/the-happy-kitchen/1	Colorful Kitchen Accessories for a Ha	65	Brighten up your kitchen with colorfu	165	The Happy Kitch
/kitchen-and-food/dutch-ovens/1	Dutch Ovens & Cocottes for Cooking	51	Free Shipping. Shop for a dutch ove	151	Dutch Ovens
/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
/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 page is titled "What is AMD" and "Age-related macular degeneration (AMD)". The header includes the hospital's name, NHS logo, and navigation links like "Home", "Eye conditions", "Consultants", "Locations", "Education", "Research", and "Moorfields Private". A blue banner at the top contains the title and subtitle. Below the banner, there are links for "What is AMD", "Symptoms and diagnosis", "Treatment", "Living with AMD", "More about AMD", and "Private patients". A blue callout box on the right says "Referral to our NHS services" and contains text: "Your GP or optometrist can refer you to our services if your eye condition needs to be investigated further." Below this is a purple button for "Moorfields private". The main content area has a heading "What is age related macular degeneration (AMD)" followed by a bulleted list of key points: "Age-related macular degeneration (AMD) is a common condition that affects the middle part of your vision. It usually first affects people in their 50s and 60s.", "It does not cause total blindness. But it can make everyday activities like reading and recognising faces difficult.", "Without treatment, your vision may get worse. This can happen gradually over several years ('dry AMD'), or quickly over a few weeks or months ('wet AMD').", and "The exact cause is unknown. It's been linked to smoking, high blood pressure, being overweight and having a family history of AMD." Below the list is a paragraph explaining that AMD is the leading cause of vision loss in people aged 50 years or older, involving damage to the macula. The final paragraph states that AMD affects central vision, while peripheral vision remains normal, and that AMD 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.

Noun source considerations

...as with history, be critical of your sources

Validity, bias

- are you using a primary (verbatim/user), or a secondary sources (corporate/marketing)?
- is the source truly relevant to your research domain?

Quality

- is the source data well-formed, designed?

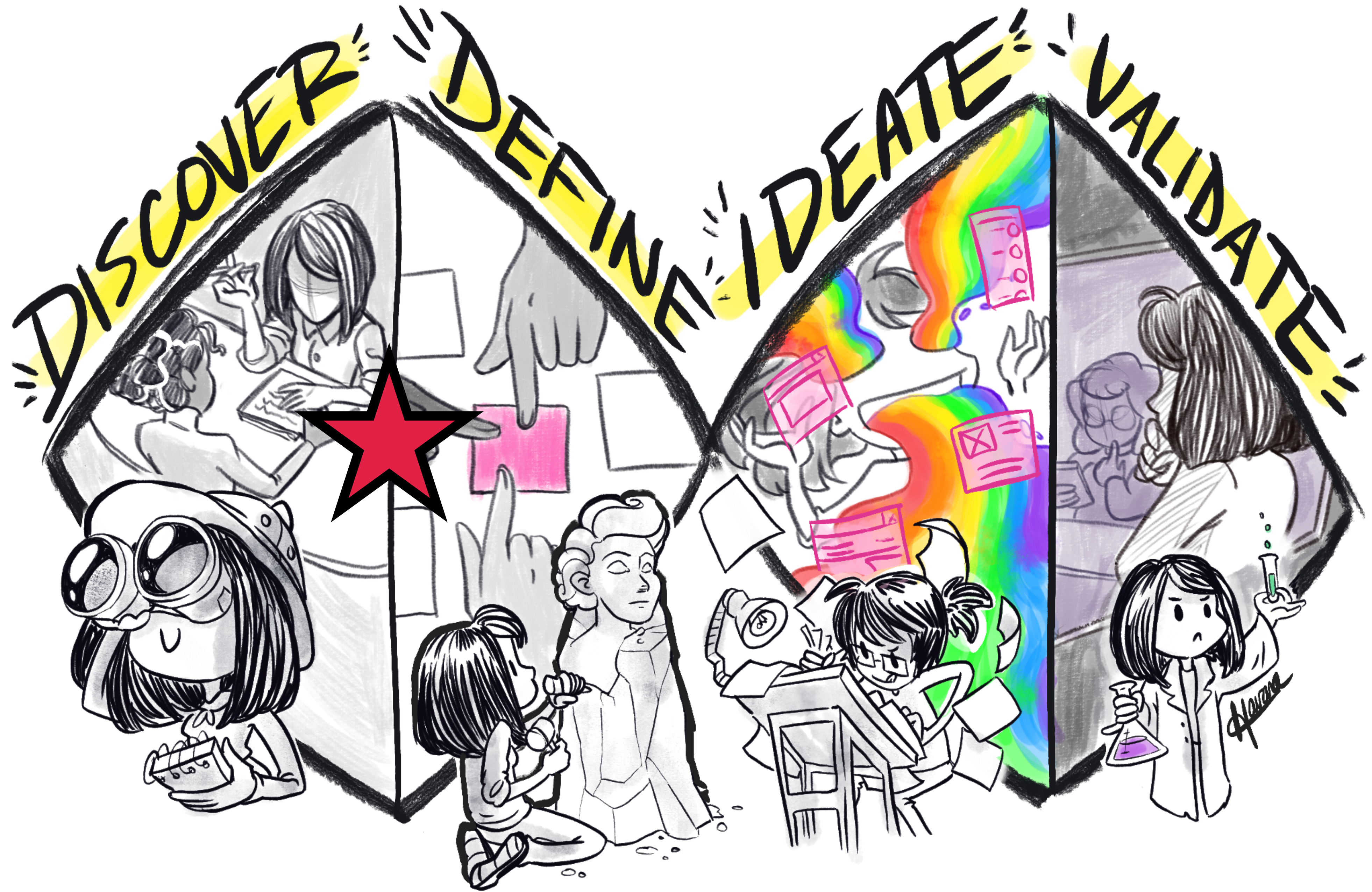
Size, spread

- how large is the corpus?
- how many sources are you using?

Internationalisation

- can your tagging software work beyond English (and major European languages)?

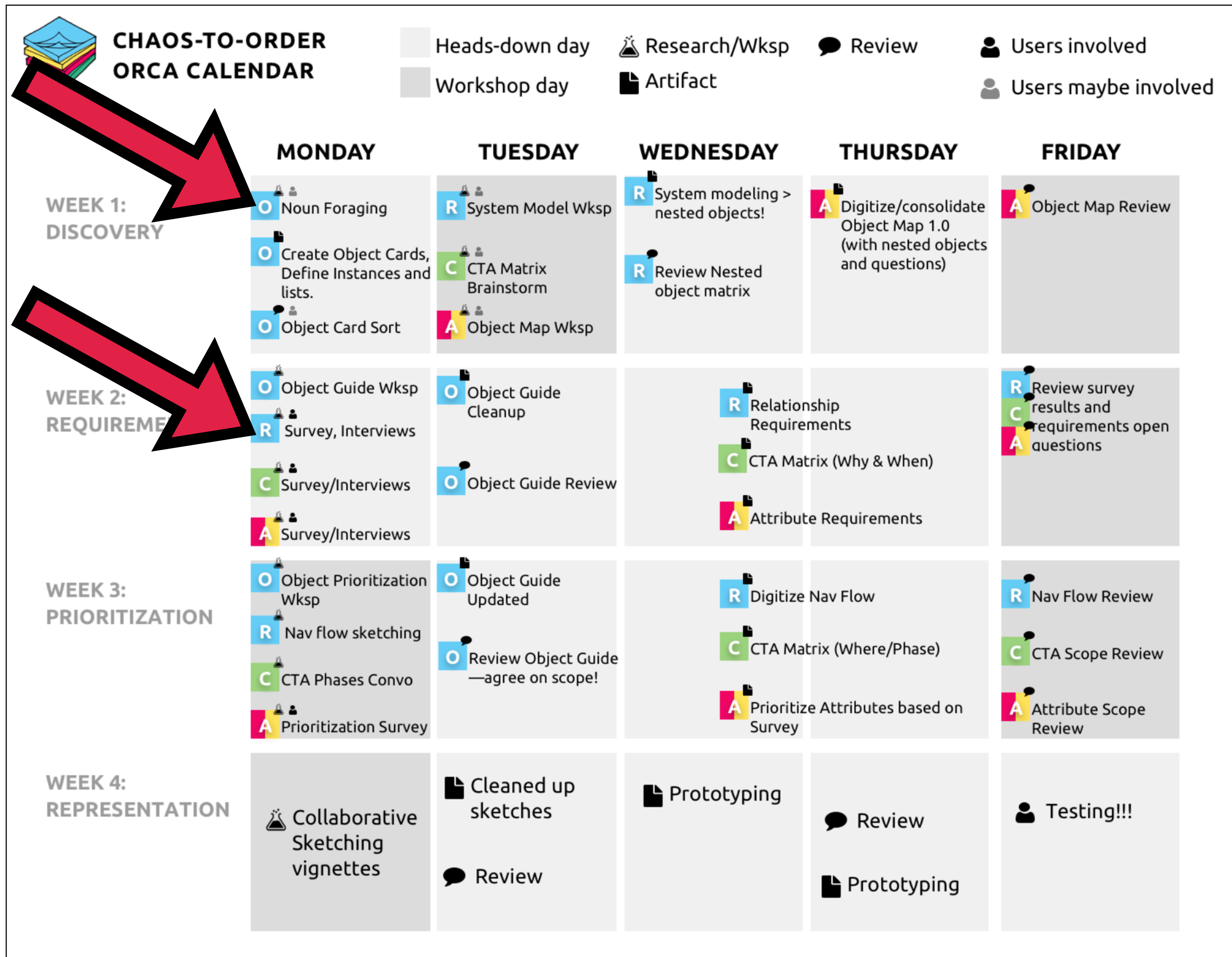
**When is machine noun
foraging most useful?**



Source: Havana Nguyen's UX Process



Source: Havana Nguyen's UX Process, with added OOUX with ORCA



Source: Chaos-To-Order ORCA Calendar — OOUX Certification / Sophia Prater

Project. Connected Dementia Content



OBJECTS

Station 1: Noun Foraging

1) Paste relevant research snippets below. Put each noun that's a potential object in the system on a blue sticky. Look to the right for an example of noun foraging!

Click "open link" for some help on determining objects.

[Open link](#)



From Machine Noun Foraging

Condition	Service	Symptom	Risk Factor	Product
Research Project	Practical Tip	Statistic	Treatment	Location
Training Course	Blog Post	Factual Advice	Memory Clinic	GP
Case	Magazine	Press	Forum	

From SMEs

Object (singular form!)

Object (singular form!)

Object (singular form!)

From Users

Object (singular form!)

Object (singular form!)

Object (singular form!)

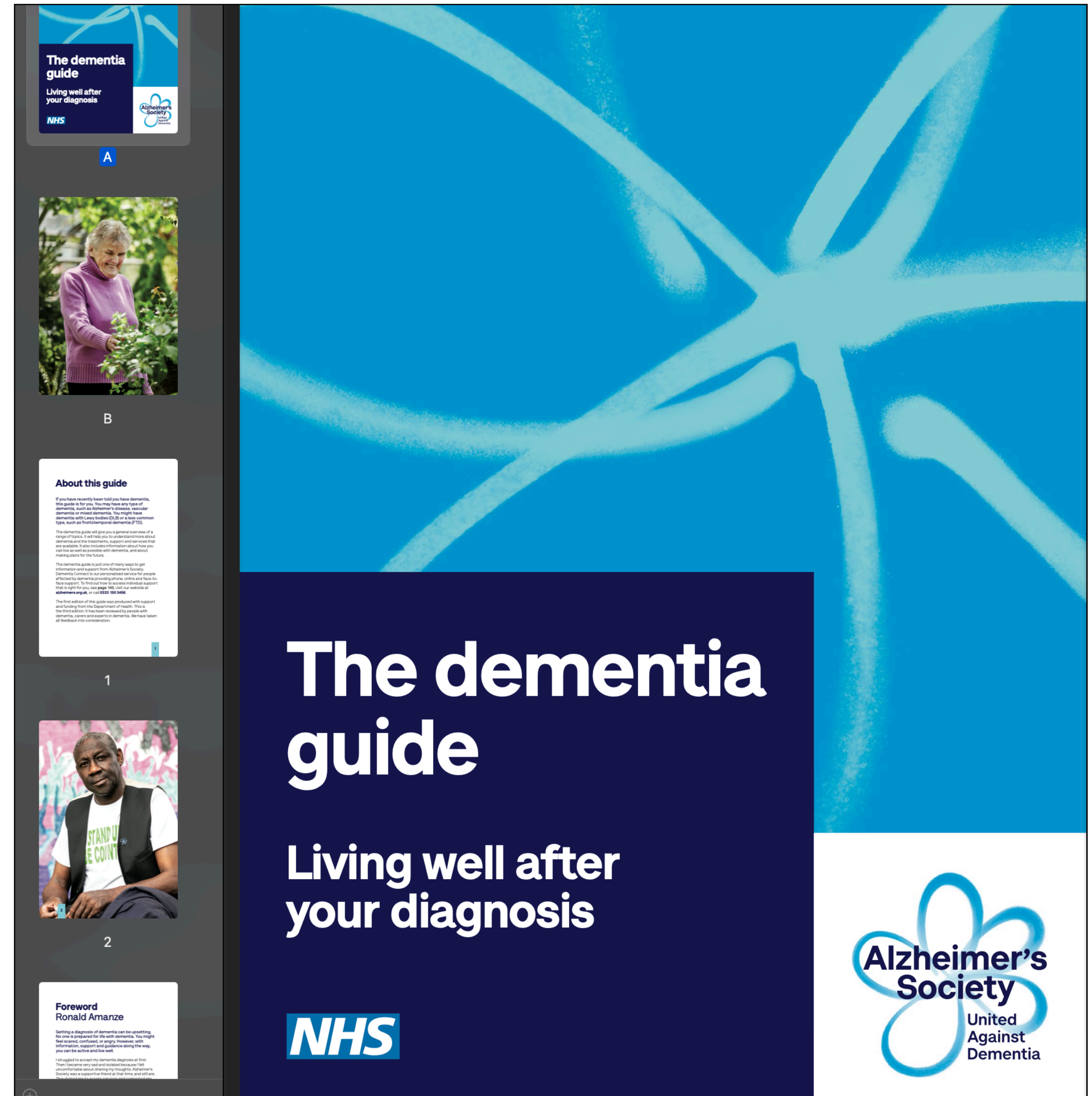
**Practical —
my workflow, so far...**



Step 1

Choose your source text / data

We'll be working through *The Dementia Guide* PDF. This is a good domain definitive, large and noun-rich source (PDF) with which to experiment.



Source: <https://bit.ly/dementia-guide-pdf>

Step 2

Extract its corpus

Select all, then copy and paste into...

<https://parts-of-speech.info/>

...and run the tagger.

Parts-of-speech.Info

POS tagging [about Parts-of-speech.Info](#)

Enter a complete sentence (no single words!) and click at "POS-tag!". The tagging works better when grammar and orthography are correct.

Text:

The dementia guide Living well after your diagnosis About this guide If you have recently been told you have dementia , this guide is for you . You may have any type of dementia , such as Alzheimer 's disease , vascular dementia or mixed dementia . You might have dementia with Lewy bodies (DLB) or a less common type , such as frontotemporal dementia (FTD) . The dementia guide will give you a general overview of a range of topics . It will help you to understand more about dementia and the treatments , support and services that are available . It also includes information about how you can live as well as possible with dementia , and about making plans for the future . The dementia guide is just one of many ways to get information and support from Alzheimer 's Society . Dementia Connect is our personalised service for people affected by dementia providing phone , online and face - to - face support . To find out how to access individual support that is right for you , see page 140 , visit our website at alzheimers.org.uk , or call 0333 150 3456 . The first edition of this guide was produced with support and funding from the Department of Health . This is the third edition . It has been reviewed by people with dementia , carers and experts in dementia . We have taken all feedback into consideration . 1 2 Foreword Ronald Amanze Getting a diagnosis of dementia can be upsetting . No one is prepared for life with dementia . You might feel scared , confused , or angry . However , with information , support and guidance along the way , you can be active and live well . I struggled to accept my dementia diagnosis at first . Then I became very sad and isolated because I felt uncomfortable about sharing my thoughts . Alzheimer 's Society was a supportive friend at that time , and still are . They helped me to access services and connected me with other people when I felt disheartened and excluded . When I needed advice or a good conversation , they were there for me . With support , I certainly think it is possible to live well with dementia . For me , keeping socially active , making music , poetry and art help me to live well . Learning more about my diagnosis has also helped . This is why I think The dementia guide is like an important road map . The information about symptoms , treatments , managing your money , planning for the future and keeping active can help you , and your family and friends . It helps you feel prepared for life with

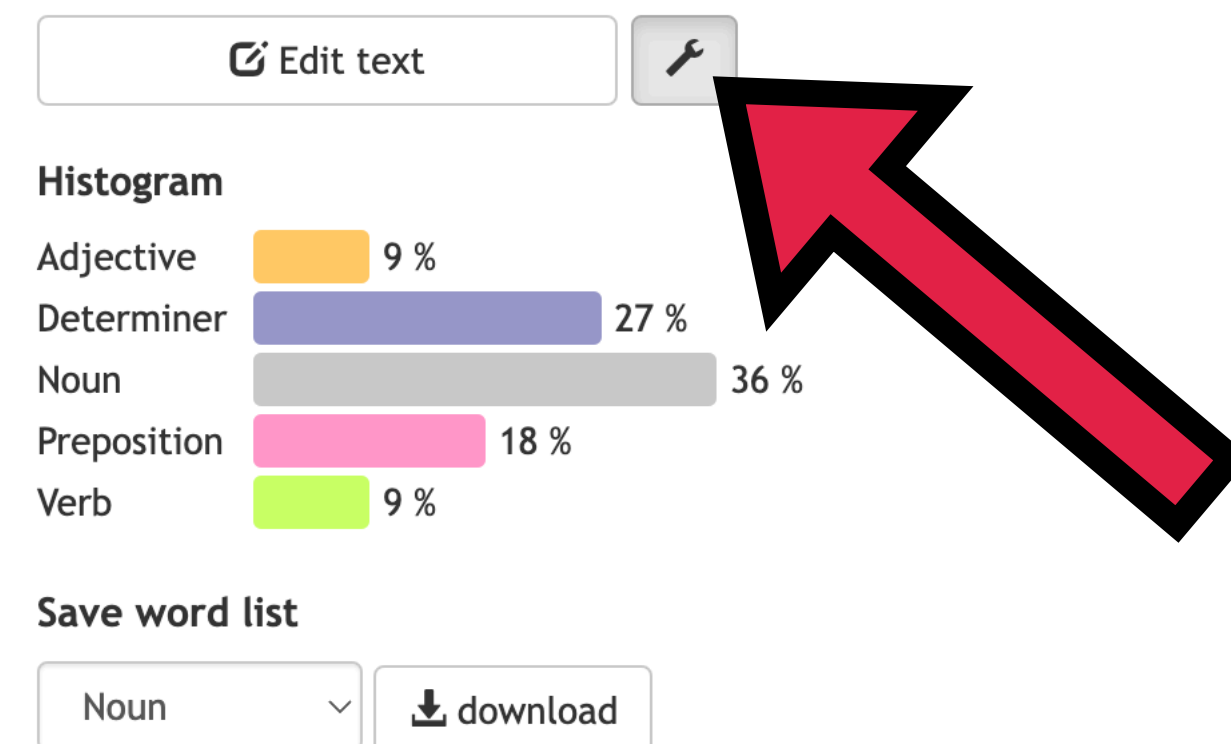
- Adjective
- Adverb
- Conjunction
- Determiner
- Noun
- Number
- Preposition
- Pronoun
- Verb

Tagged content from The Dementia Guide PDF in <https://parts-of-speech.info/>

Step 3

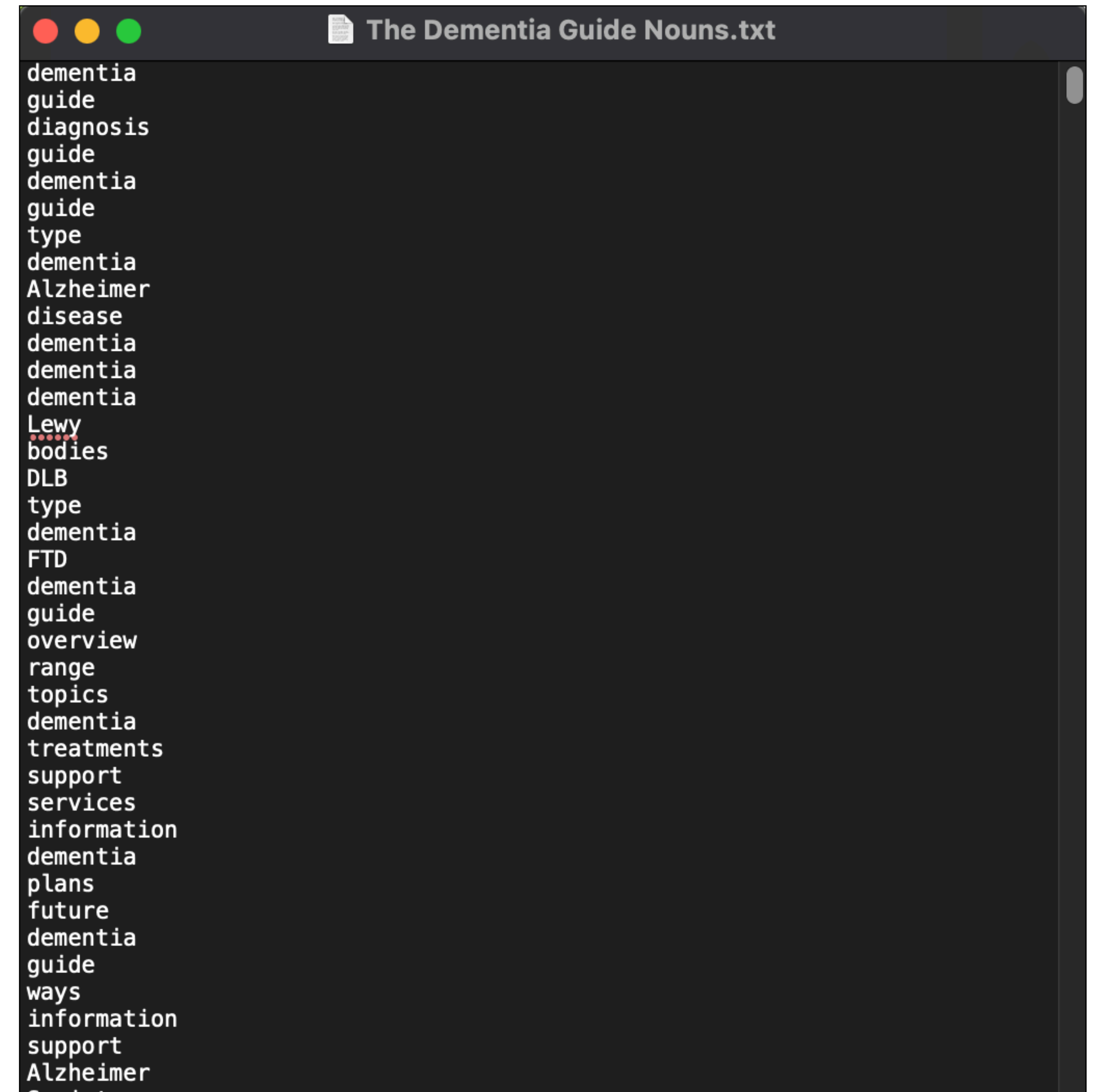
Download the nouns

Tip: in PoS Tagger, noun download is hidden behind a spanner icon at the end of your tagged text:



The screenshot shows the PoS Tagger interface. At the top, there is an "Edit text" button with a spanner icon to its right. Below this is a histogram showing the distribution of parts of speech: Adjective (9%), Determiner (27%), Noun (36%), Preposition (18%), and Verb (9%). At the bottom, there is a "Save word list" section with a dropdown menu set to "Noun" and a "download" button.

Part of Speech	Percentage
Adjective	9 %
Determiner	27 %
Noun	36 %
Preposition	18 %
Verb	9 %



```
dementia
guide
diagnosis
guide
dementia
guide
type
dementia
Alzheimer
disease
dementia
dementia
dementia
Lewy
bodies
DLB
type
dementia
FTD
dementia
guide
overview
range
topics
dementia
treatments
support
services
information
dementia
plans
future
dementia
guide
ways
information
support
Alzheimer
Societu
```

The raw nouns in their .txt file download, ordered by where they occurred in the text (top to bottom).

Step 4a

Sanitise and normalise the nouns

Tips:

- **sort by alphabet** to reveal groupings.
- **sort by noun count** to reveal occurrences.
- **look for plurals**, these might mean instances, and instances might mean *Objects*.
 - **normalise plurals** so that their noun count is accurate.
- **remove junk content** to increase signal and decrease noise in your data.

Count	Raw Nouns (paste your nou	Potential Type	Notes	Count	Raw Nouns	Potentia
1	ConciliationandArbitrationService	—		0		—
8	condition	Object?		0		—
8	condition	Object?		0		—
8	condition	Object?		0		—
8	condition	Object?		0		—
8	condition	Object?		0		—
8	condition	Object?		0		—
8	condition	Object?		0		—
8	condition	Object?		0		—
14	conditions	Object?		0		—
14	conditions	Object?		0		—
14	conditions	Object?		0		—
14	conditions	Object?		0		—
14	conditions	Object?		0		—
14	conditions	Object?		0		—
14	conditions	Object?		0		—
14	conditions	Object?		0		—
14	conditions	Object?		0		—
14	conditions	Object?		0		—
14	conditions	Object?		0		—
14	conditions	Object?		0		—
14	conditions	Object?		0		—
2	confidence	Object Insta		0		—
2	confidence	Object Instance?	Symptom instance?	0		—
1	confusion	Object Instance?	Symptom instance?	0		—
60	Connect	—		0		—
60	Connect	—		0		—
60	Connect	—		0		—

Find and replace

Find: conditions

Replace with: condition

Search: All sheets

Match case

Match entire cell contents

Search using regular expressions [Help](#)

Also search within formulae

Find Replace Replace all Done

Normalising plurals to their singular form so that their count (8+14) is accurate. For example, the noun 'condition' would occur 22 times after normalising plurals.

Step 4b

Identify patterns and research questions

Look for...

- **noun instances** and *consider*:
 - normalising to the overarching 'super-noun' (proto-Object)
 - instances as potential Metadata
- **user roles** in the system
- **opportunities**, which nouns are just *intriguing/interesting*?

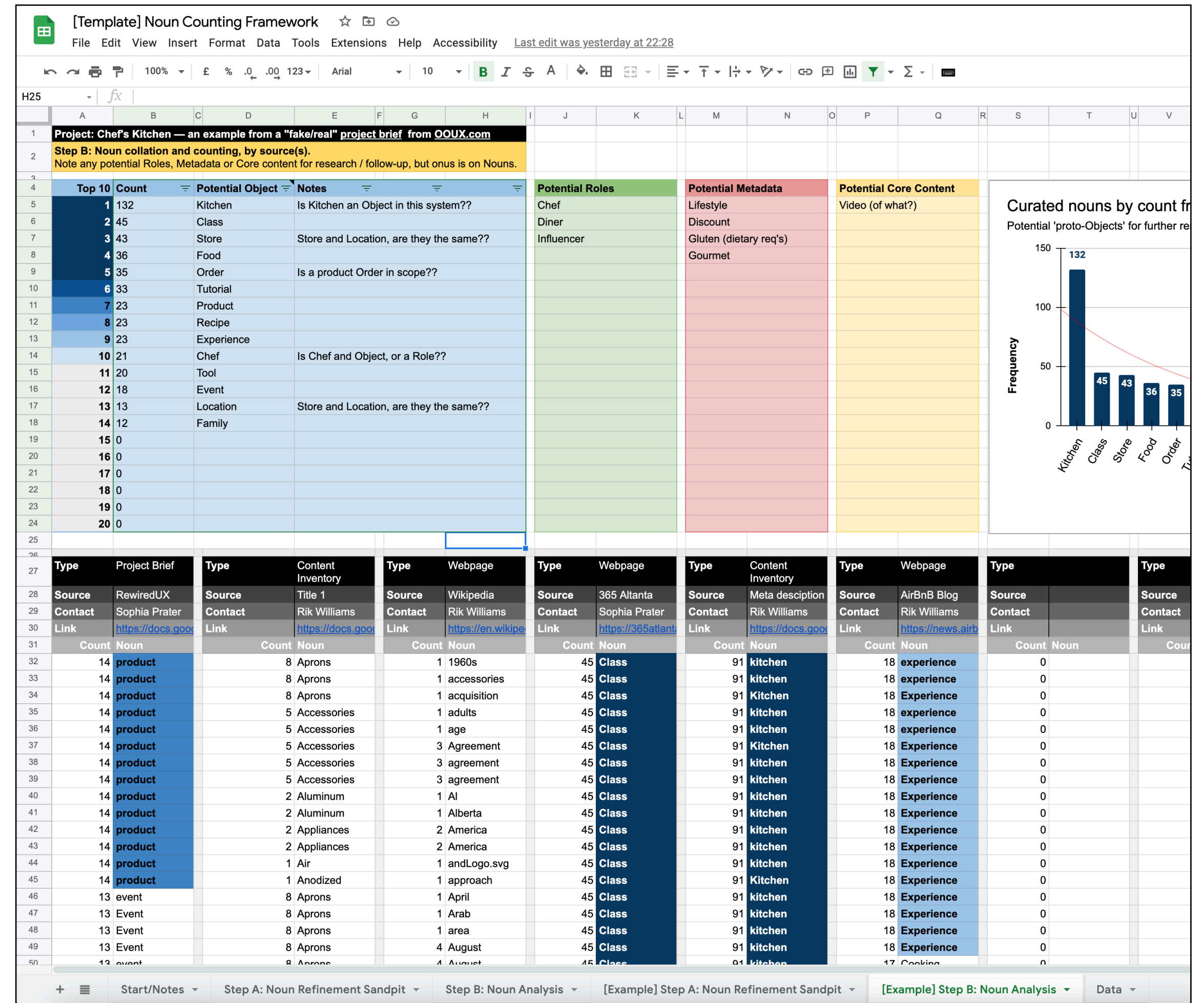
	A	B	C	D	E	F
1	Step A: Noun refinement A simple sandpit to sanitise and normalise your raw nouns before pasting them across to Step B for aggregation and refinement...					
2	Noun Source 1					Noun Source 2 (opti
3	Noun Count	Raw Nouns (paste your nou	Potential Type	Notes	Count	Raw Nou
1531	63	carer	Role?	Object, Role, Both??	0	
1532	63	carer	Role?	Object, Role, Both??	0	
1533	63	carer	Role?	Object, Role, Both??	0	
1534	63	carer	Role?	Object, Role, Both??	0	
1535	63	carer	Role?	Object, Role, Both??	0	
1536	63	carer	Role?	Object, Role, Both??	0	
1537	63	carer	Role?	Object, Role, Both??	0	
1538	63	carer	Role?	Object, Role, Both??	0	
1539	63	carer	Role?	Object, Role, Both??	0	
1540	63	carer	Role?	Object, Role, Both??	0	
1555	8	cause	Object?		0	
1556	8	cause	Object?		0	
1557	8	cause	Object?		0	
1558	8	cause	Object?		0	
1559	8	cause	Object?		0	
1560	8	cause	Object?		0	
1561	8	cause	Object?		0	
1562	8	cause	Object?		0	
1563	4	CBT	Object Instance?	Treatment instance??	0	
1564	4	CBT	Object Instance?	Treatment instance??	0	
1565	4	CBT	Object Instance?	Treatment instance??	0	
1566	4	CBT	Object Instance?	Treatment instance??	0	
1567	1	CD	—		0	
1568	13	cells	—		0	
1569	13	cells	—		0	

Example research questions: Is a 'Carer' an Object, Role or Both in this domain/system? Is 'CBT' (Cognitive Behavioural Therapy) an instance of an overarching 'Treatment'? 🤔🤔

Step 5 (optional)

Aggregate and triangulate

Tips: use many content sources (both types *and* instances) so that your analysis is more robust.



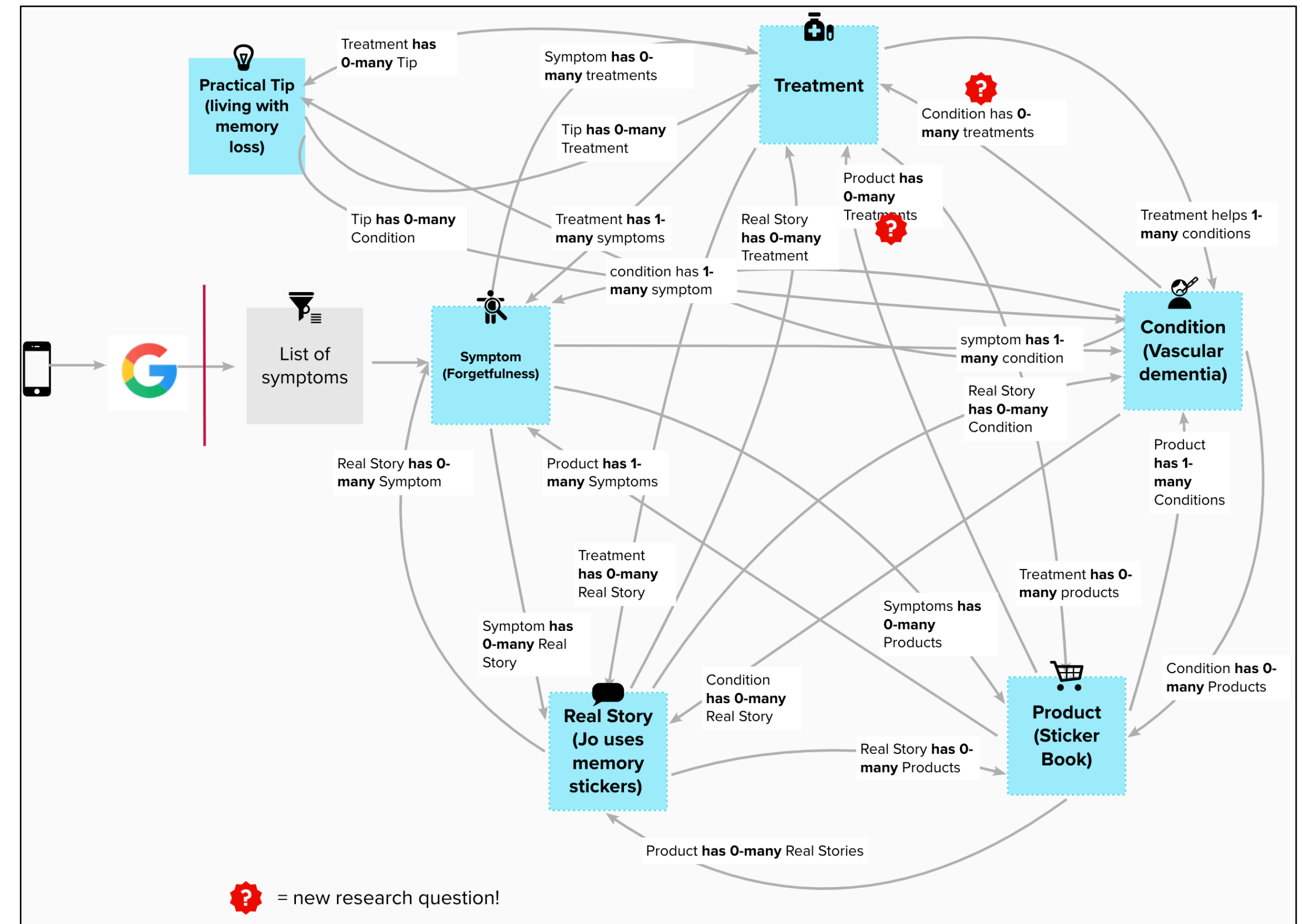
Triangulating nouns from many count sources and assessing their comparative frequency of occurrence. Source: <https://bit.ly/machine-noun-counting-template>

Step 6

Validate!

Noun foraging is an early step in OO research and design. And your noun's aren't gospel.

Machine-enabled noun foraging is but +1 tool in your arsenal to help make sense of messes.



A simple system model in the ORCA OOUX process for a dementia service. One way to explore/validate potential relationships between objects (which were grounded in machine-enabled noun foraging) in a workshop with subject matter experts.

Practical

Resources (Google Drive) for following along, if you want to...

<https://bit.ly/ooouxHH>

— case sensitive —

Merits

Fast, cheap way to see the wood
(objects) for the trees (noise) in
a domain / landscape

Grounded in extant data*

* ideally primary, domain definitive, at scale and from many sources

Can (re)use and integrate
qualitative user research data
towards a working structure

**Kick starts research question /
assumption definition for follow-
up / validation**

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

Sophia Prater

Limits

Only as good as the source data
— rubbish in, rubbish out

Noun frequency is a guide, not a
gospel...

...so don't discount potential
noun 'gold' in the long tail

Only works with text-based data*

* you will need to do manual work to extract text from infographics, audio and video at scale.

Only works with data you already
have, which *could* limit scope to
innovate

Some people just hate
spreadsheets 🙄

Can fail the '*headphone's on test*'* — any work you can do listening to a podcast isolates you from your users and your team

* Search for: "Leisa Reichelt headphones on"

**TMK: limited to English and
major European languages**

<https://parts-of-speech.info/>

is a single point of failure*

* TMK it's the only service of its type, unless you pay for, subscribe to and/or install another tagger

Ideas

Ideas

things I will be experimenting with...

- Isolating, counting and listing potential:
 - Roles
 - Metadata
 - Content Attributes
- Extracting Verbs, for Object call to actions*

Feedback

“[Good] design depends on critique as an engine.”

Dan Brown

<https://forum.oooux.com/>

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

A cheeky plug...



The Research Thing

London, United Kingdom
3,616 members · Public group
Organized by Rik Williams and 3 others

- About
- Events
- Members
- Photos
- Discussions
- More

Create event

Manage group

What we're about

We now have a permanent sponsor! Zebra People (<https://zebrapeople.com/>) are making sure we are up and running and talk research with you....

Organizers



Rik Williams and 3 others
[Message](#)

Discussion