

Algorithms and the Filter Bubble

Stilgherrian

University of Technology Sydney

7 April 2014



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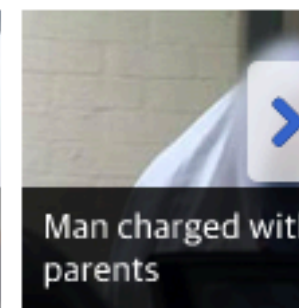


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Possible black box signals investigated



Man charged with parents



All eyes on sixth seat



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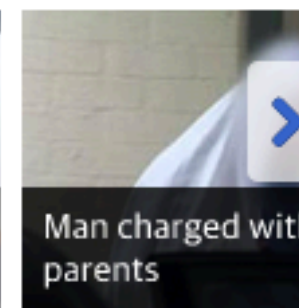


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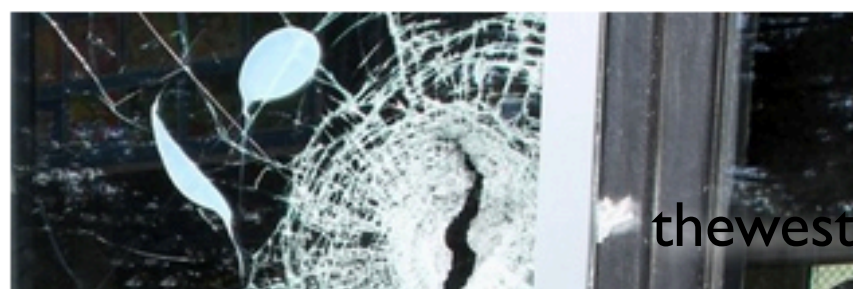
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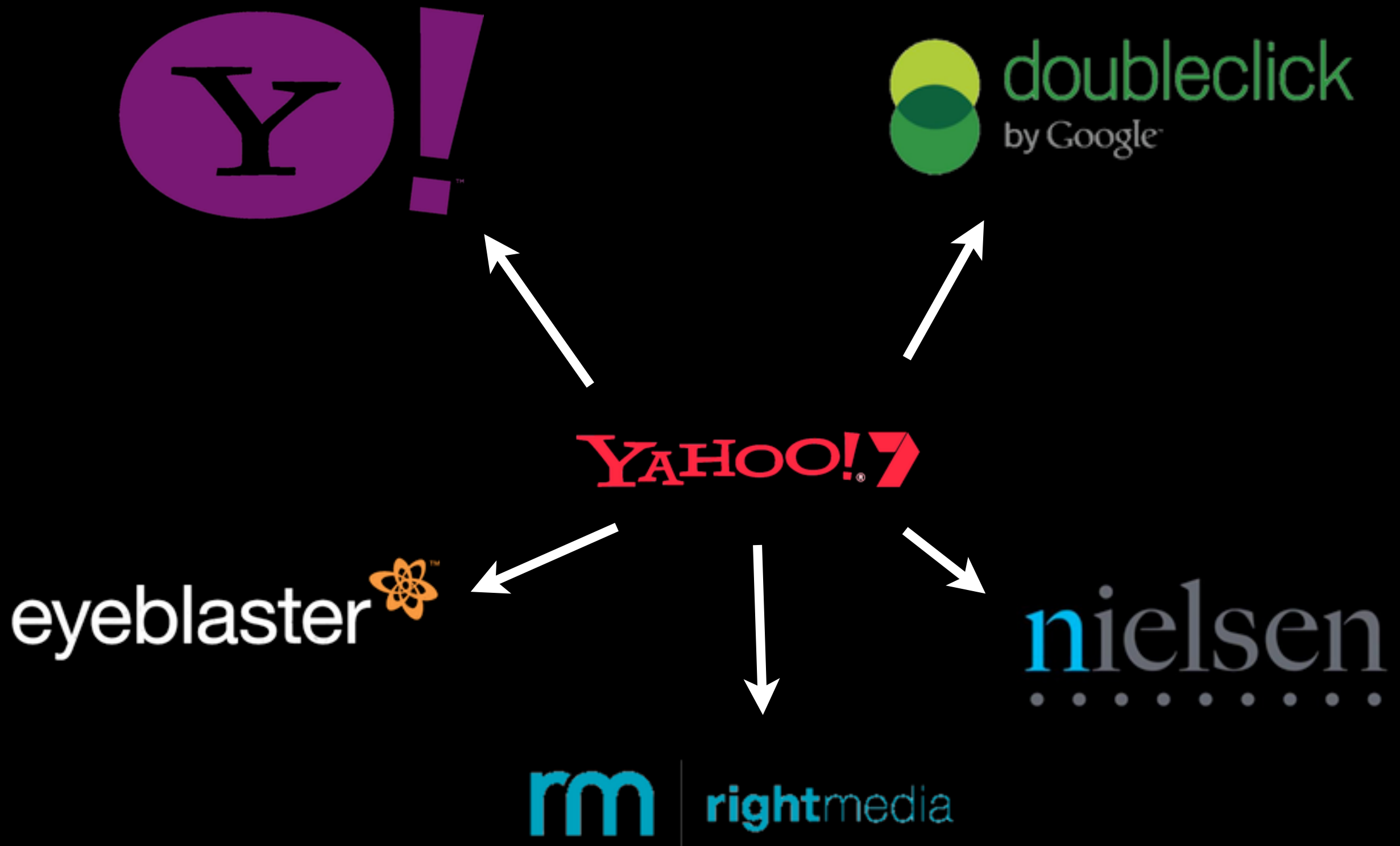


Search honed after multiple signals



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Logos and trademarks used for illustrative purposes



Screenshots from Bitdefender Clueful for Android

Clueful

PRIVACY

52

/100

You have a fair privacy score. 52 applications to learn what they do with your data.

0 High Risk apps

49 Moderate Risk apps

19 Low Risk apps

See all 70 installed apps

Clueful

49 apps

These apps are a moderate privacy risk.

Scanner Radio
Leaks private data and 3 more

AntiVirus
Sensitive data and 9 more

SCloudStarter
Sensitive data and 5 more

Firefox
Sensitive data and 2 more

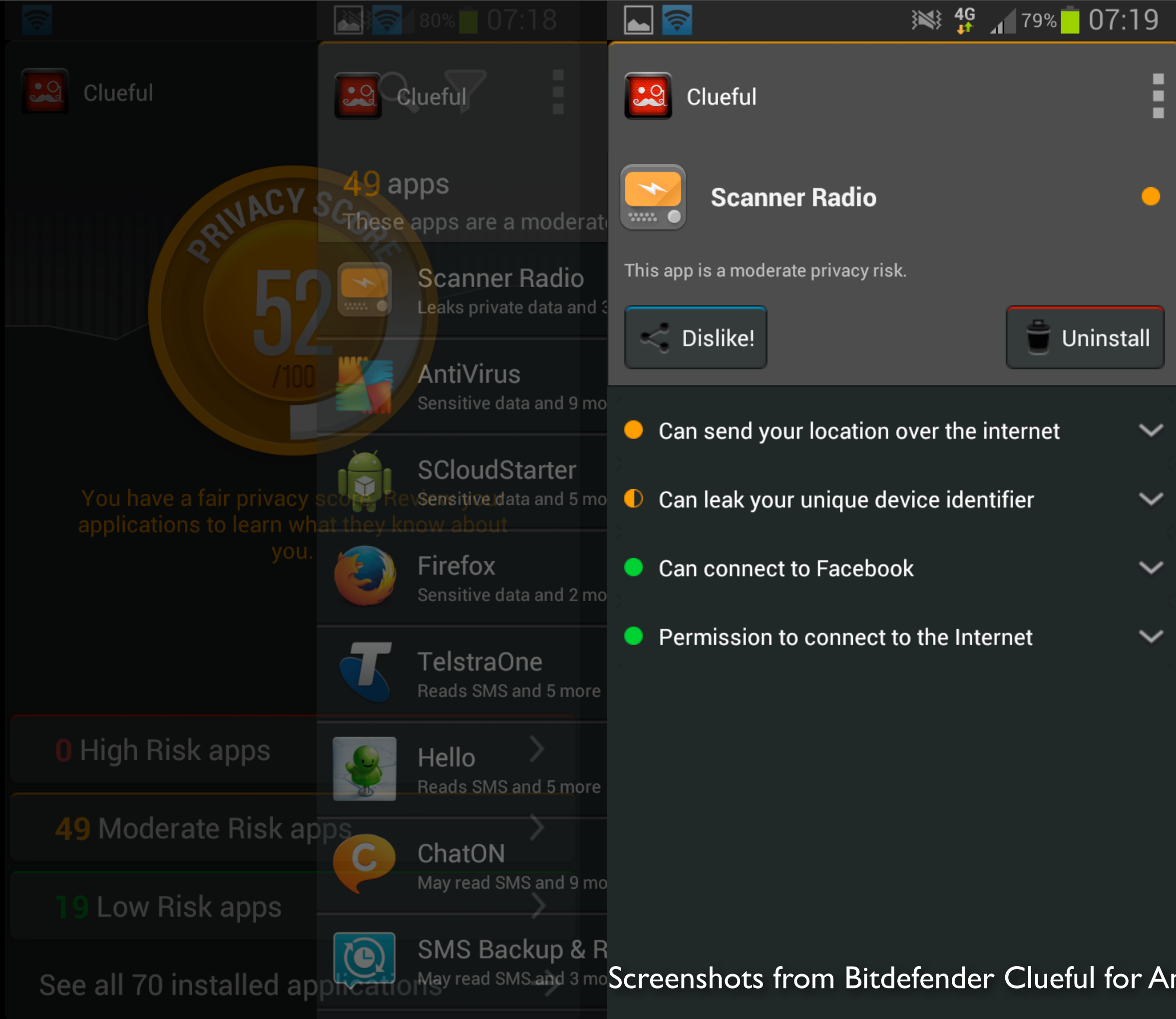
TelstraOne
Reads SMS and 5 more

Hello
Reads SMS and 5 more

ChatON
May read SMS and 9 more

SMS Backup & Restore
May read SMS and 3 more

Screenshots from Bitdefender Clueful for Android



Screenshots from Bitdefender Clueful for Android

Scan and protect your phone from potential privacy violations and identity leaks.

Protect Your Personal Data

Did you know that advertisements on your phone could be sharing your personal information?

Scan now to see what apps might be embedded with these types of ads.

Scan

Everything you need to protect your device from viruses, malware, and other privacy threats, is now available in Google Play.

TrustGo Mobile Security

Screenshots from TrustGo Ad Detector



79% 07:20

TrustGo™ | Ad Detector

TrustGo™ | Ad Detector

Scan and protect your phone from app violations and identity leaks.

Your device has **21** apps which contains ad plugins. Some plugins may exhibit more than one of the following behaviors.

Protect Your Personal Information

Did you know that advertisements can be sharing your personal information? Scan now to see what apps are using these types of ads.

Leak identity info 21 ▶

Collect location 20 ▶

Display push notification ads 0 ▶

Create shortcut on home screen 0 ▶

Modify browser homepage 0 ▶

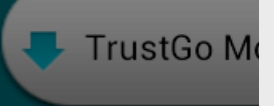
Modify browser bookmarks 0 ▶

Leak phone number 0 ▶

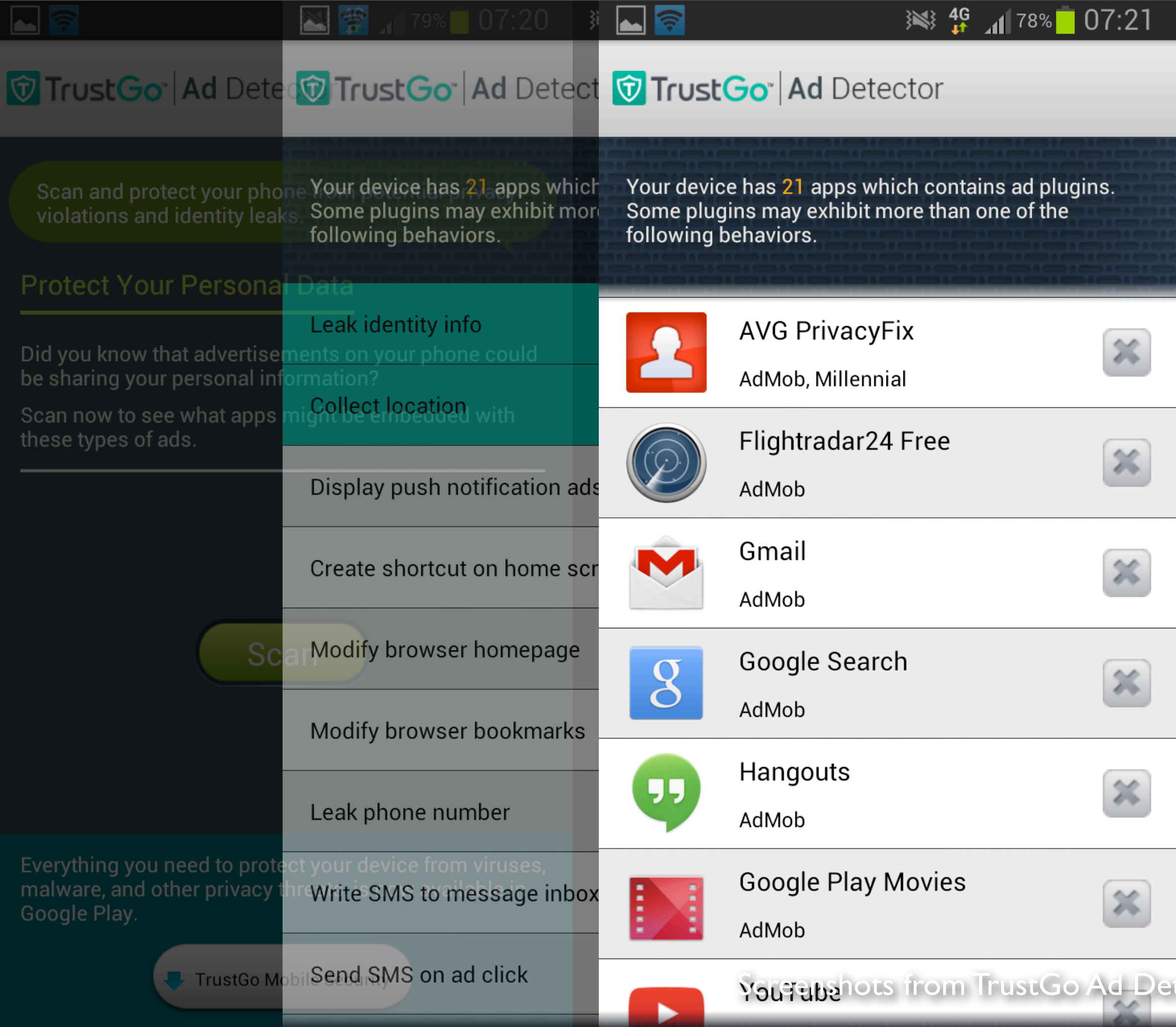
Write SMS to message inbox 0 ▶

Send SMS on ad click 0 ▶

Everything you need to protect your phone from malware, and other privacy threats is available on Google Play.



Screenshots from TrustGo Ad Detector



Screenshots from TrustGo Ad Detector

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Collect location

Display push notification ads

Create shortcut on home screen

Modify browser homepage

Modify browser bookmarks

Leak phone number

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Write SMS to message inbox

Send SMS on ad click



TrustGo Mobile Security

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AVG PrivacyFix

AdMob, Millennial



Flightradar24 Free

AdMob



Gmail

AdMob



Google Search

AdMob



Hangouts

AdMob



Google Play Movies

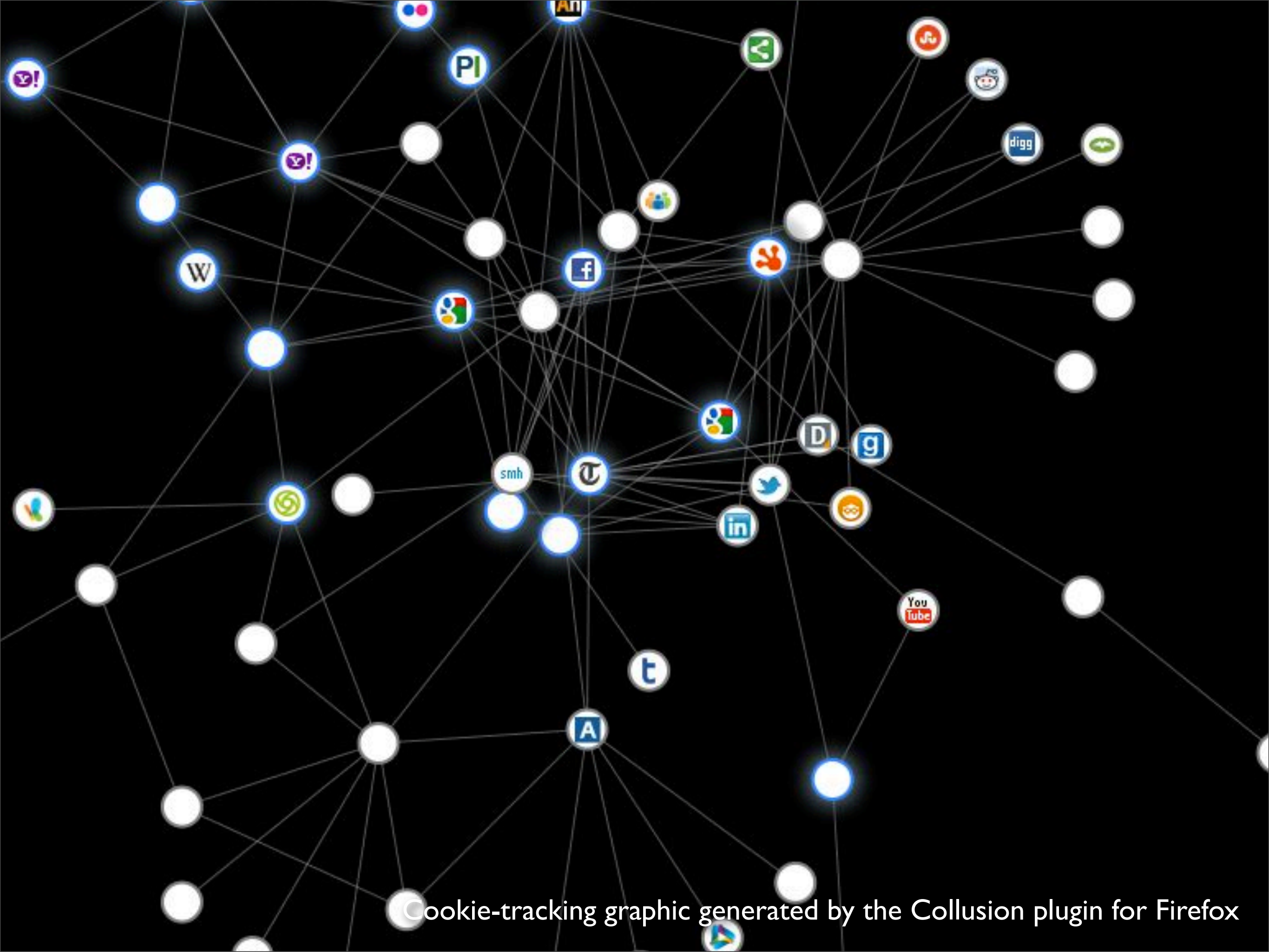
AdMob



YouTube



Screenshots from TrustGo Ad Detector



Cookie-tracking graphic generated by the Collusion plugin for Firefox



NEW RESEARCH: More than half of the top 100 URLs are tracking you



Comments



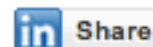
Like 784



Tweet 113



+1 2



Share 7



Share 30

You've probably never heard of most of the 100 top URLs in world.

In fact, most users have no idea that they've even accessed most of the [89 domains the average user interacts with in a month](#).

A new F-Secure Labs study of the top 100 URLs accessed by customers all over the globe shows that of the world's top URLs only 15% were accessed directly. The remaining 85% were accessed by other websites or software on the users PCs. Of the 85% accessed automatically, 10% come from ad-serving domains, 35% are ad-serving domains with tracking components and 19% are purely tracking domains.

<http://safeandsavvy.f-secure.com/2014/04/03/new-research-more-than-half-of-the-top-100-urls-are-tracking-you/>
This is why at least half of the URLs you go to are not providing you the content you're looking for, but are instead providing anonymous marketers precious information about your interests, tastes and lifestyle.

Data Brokers

- Acxiom
- Equifax
- Experian
- Datalogix

L.A. NOW

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Earthquake: 3.2 quake strikes near San Simeon

February 1, 2013 | 5:36 am



Comments 0

+1 0

Tweet 17

Recommend 8



A shallow magnitude 3.2 earthquake was reported Friday morning seven miles from San Simeon, according to the U.S. Geological Survey. The temblor occurred at 5:28 a.m. PST at a depth of 3.7 miles.

According to the USGS, the epicenter was eight miles from Cambria, 12 miles from Lake Nacimiento, 22 miles from Paso Robles and 124 miles from San Jose City Hall.

In the past 10 days, there has been one earthquake magnitude 3.0 and greater centered nearby.

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Create an account or Log In to see what your friends recommend



Asians attack cultural labels on stereotypes
419 people recommend this.



Joe Weider, legendary bodybuilder

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Prosecutor from dead



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Chris Paul

<http://latimesblogs.latimes.com/> screenshot 25 March 2013

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Let Quill Do the Writing for You



Receive Data

Quill imports your data and builds an appropriate narrative structure to meet the goals of your audience.



Create Story

Using complex Artificial Intelligence algorithms, Quill extracts and organizes key facts and insights and transforms them into stories, at scale.

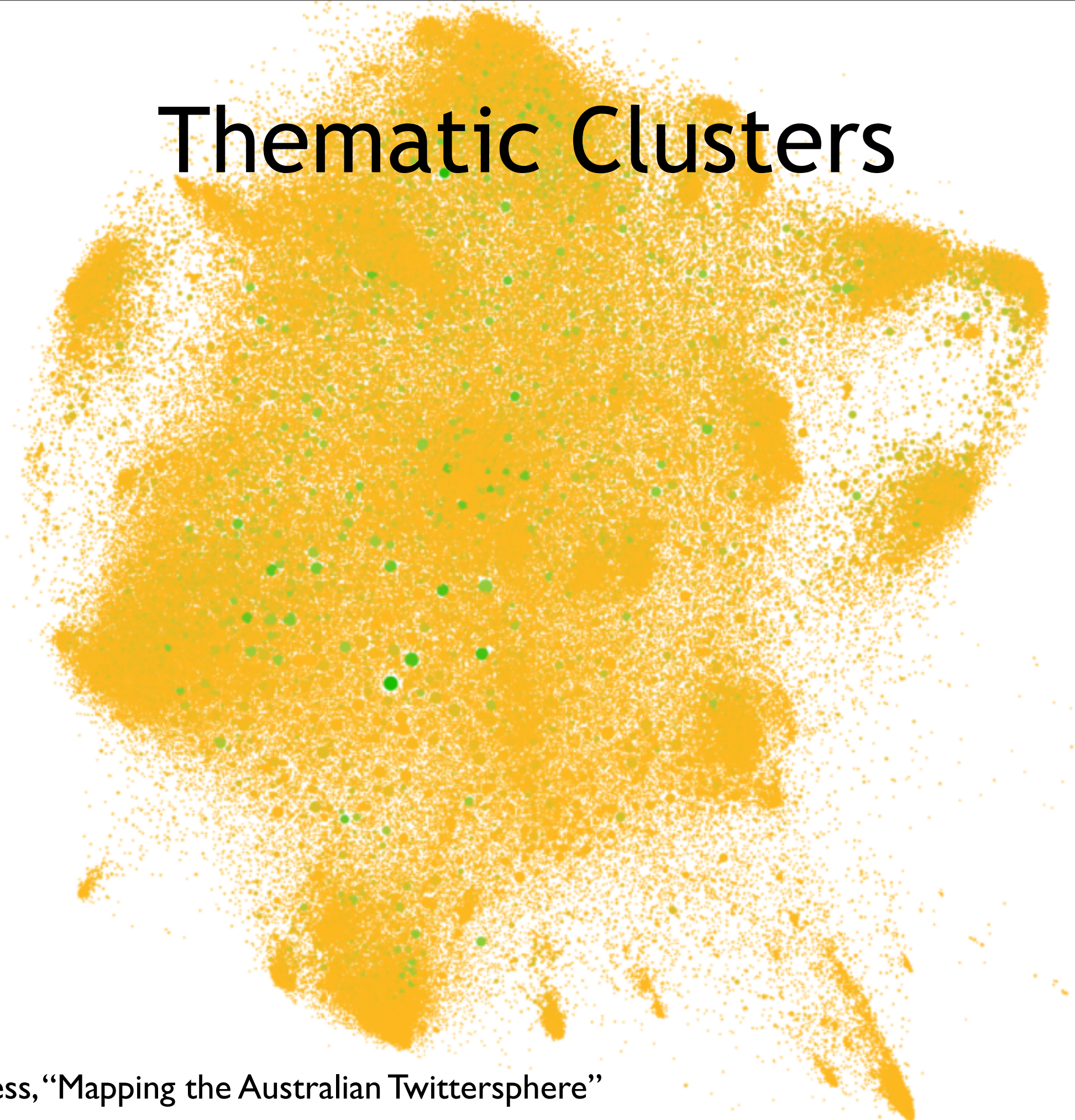


Deliver Insight

Quill uses data to answer important questions, provide advice and deliver powerful insight in a precise, clear narrative.

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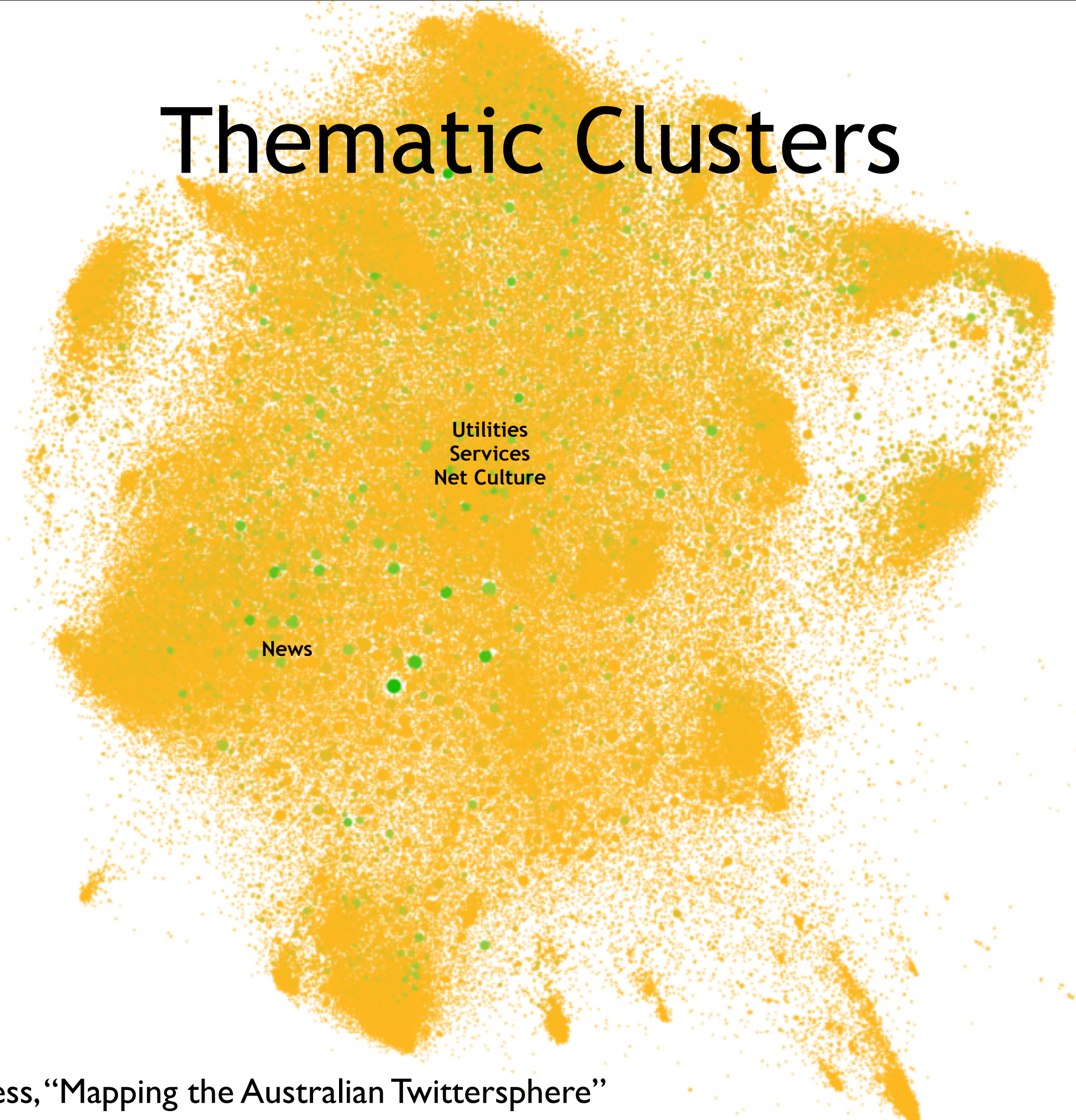
Thematic Clusters



Utilities
Services
Net Culture

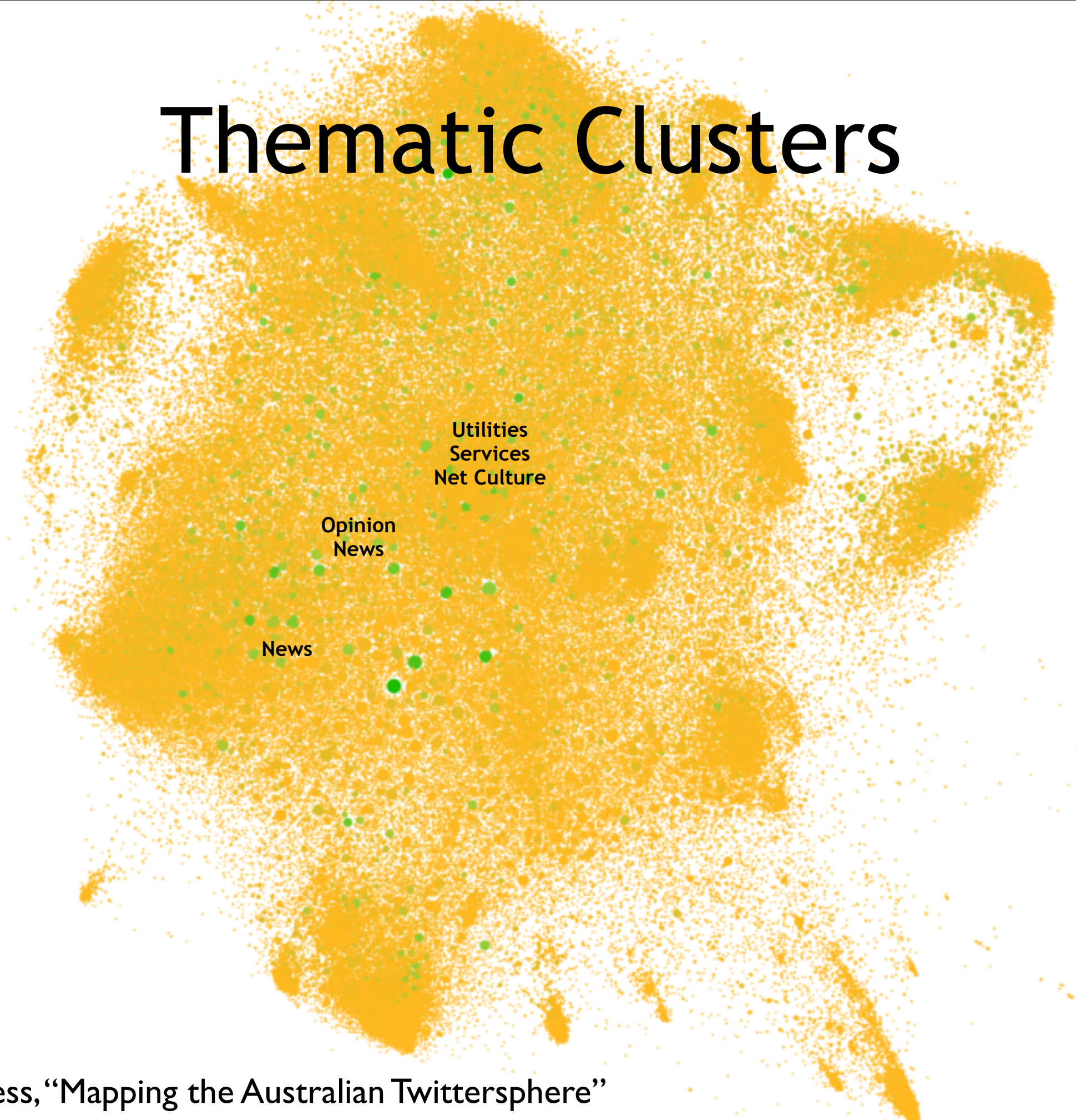
Bruns & Burgess, “Mapping the Australian Twittersphere”

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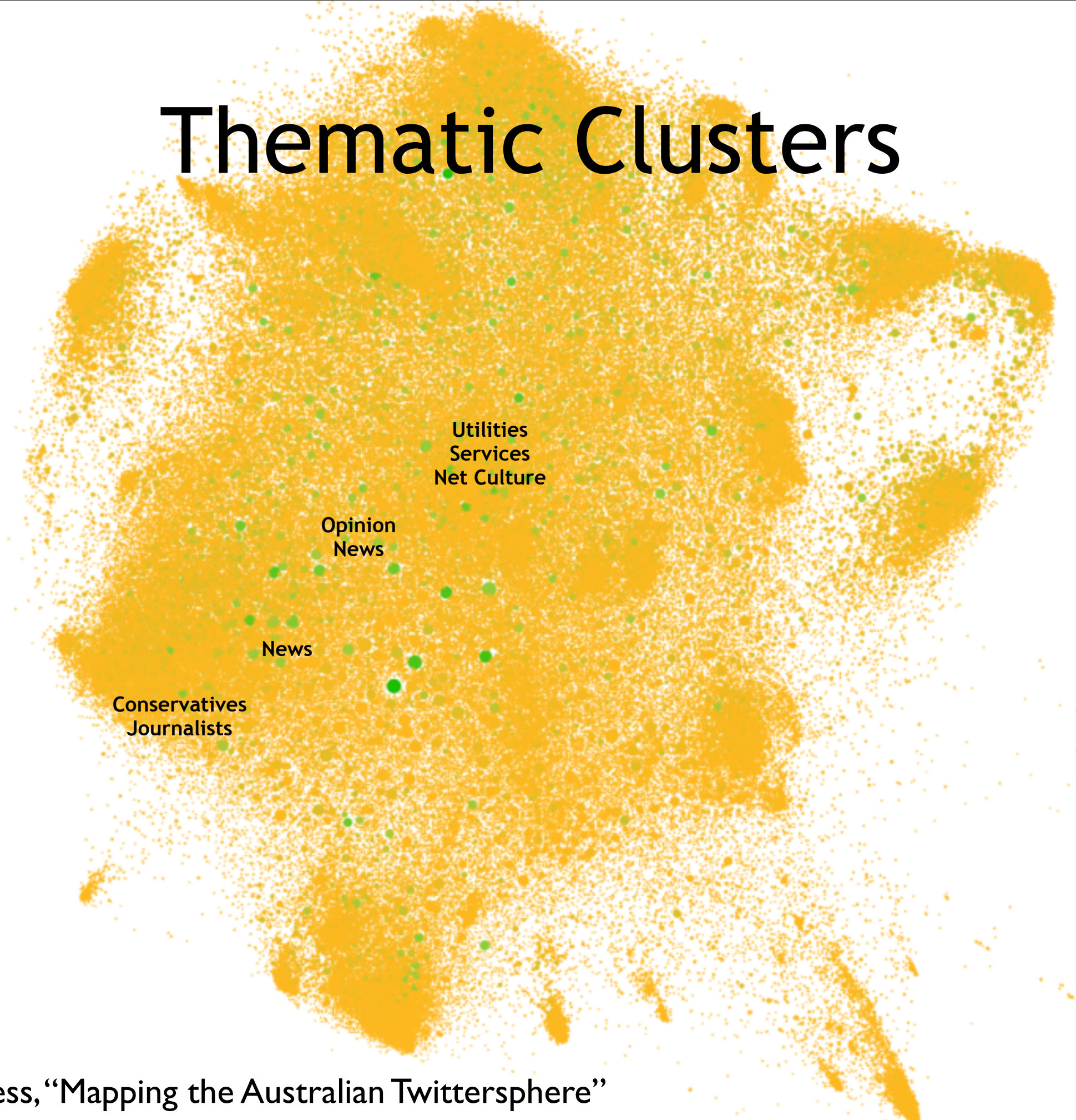
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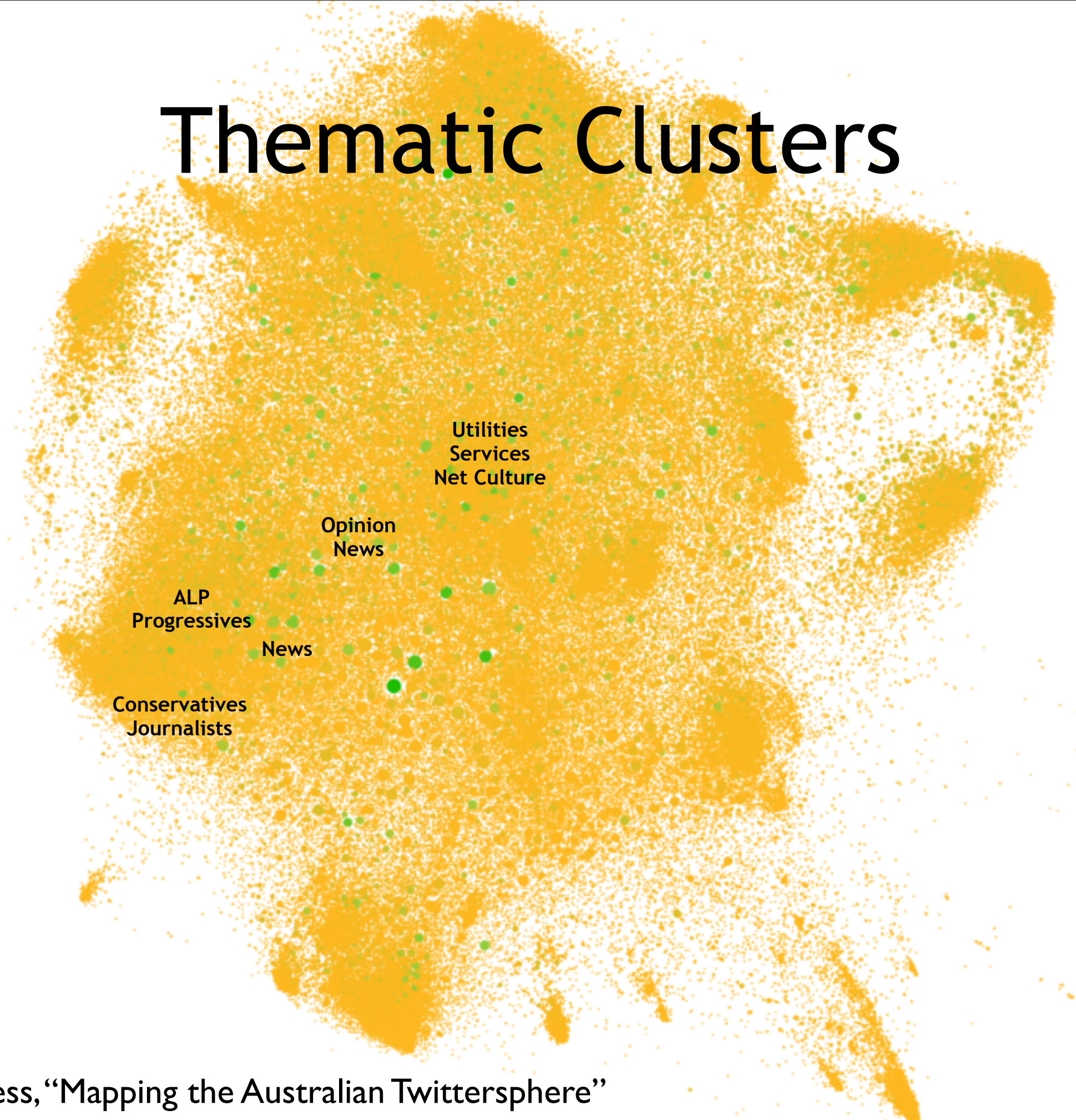
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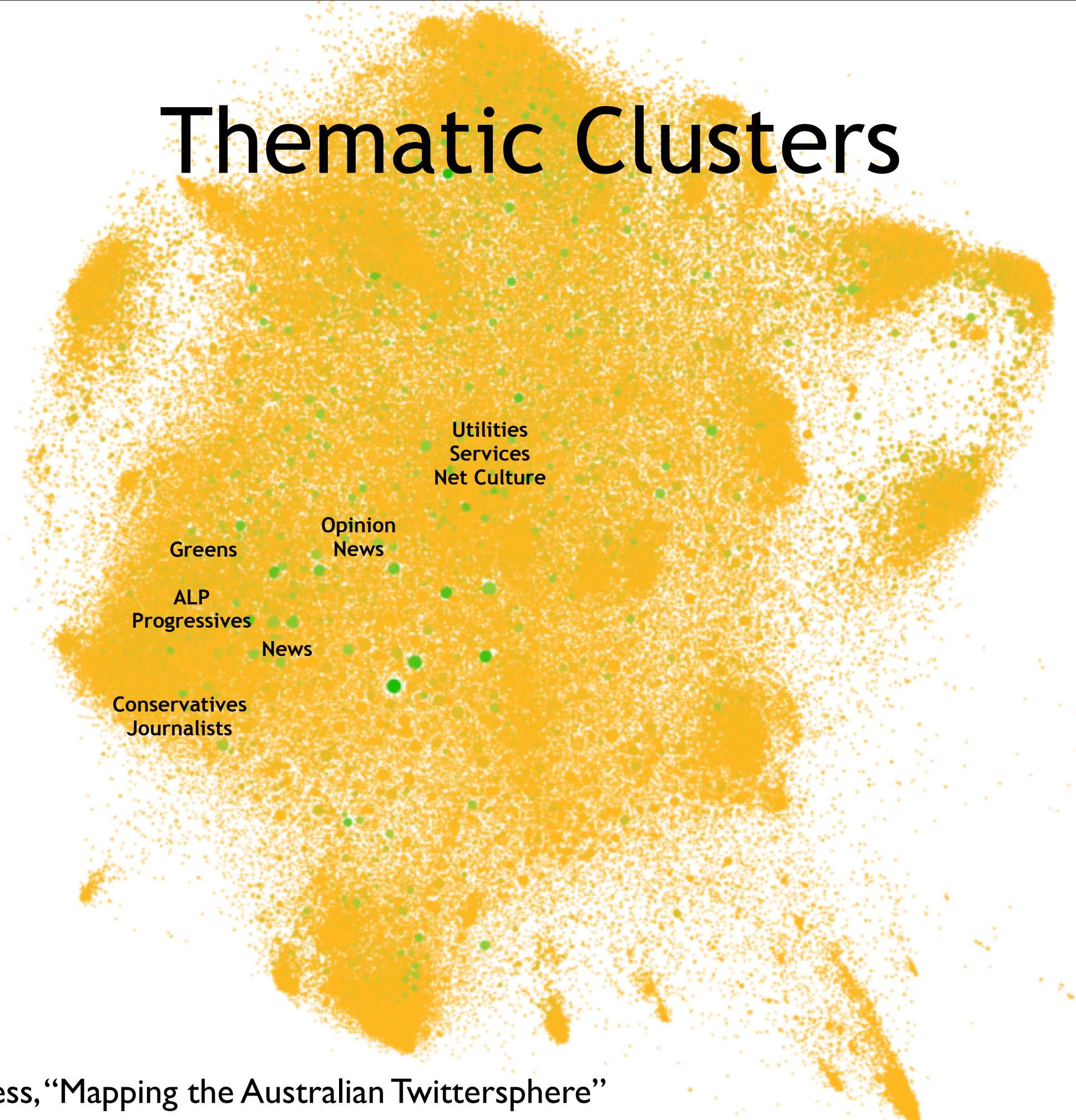
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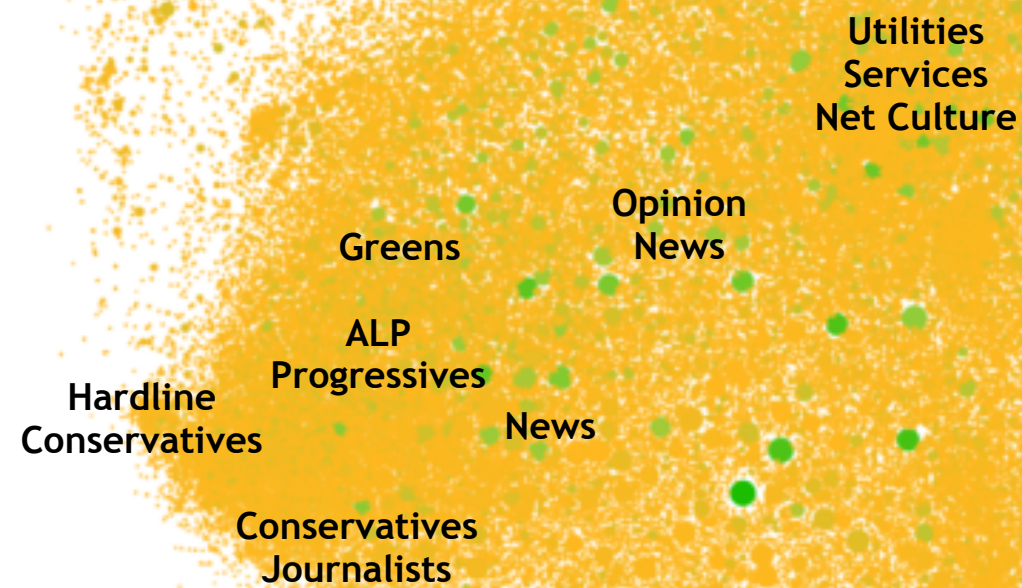
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Services
Net Culture

Opinion
News

Greens

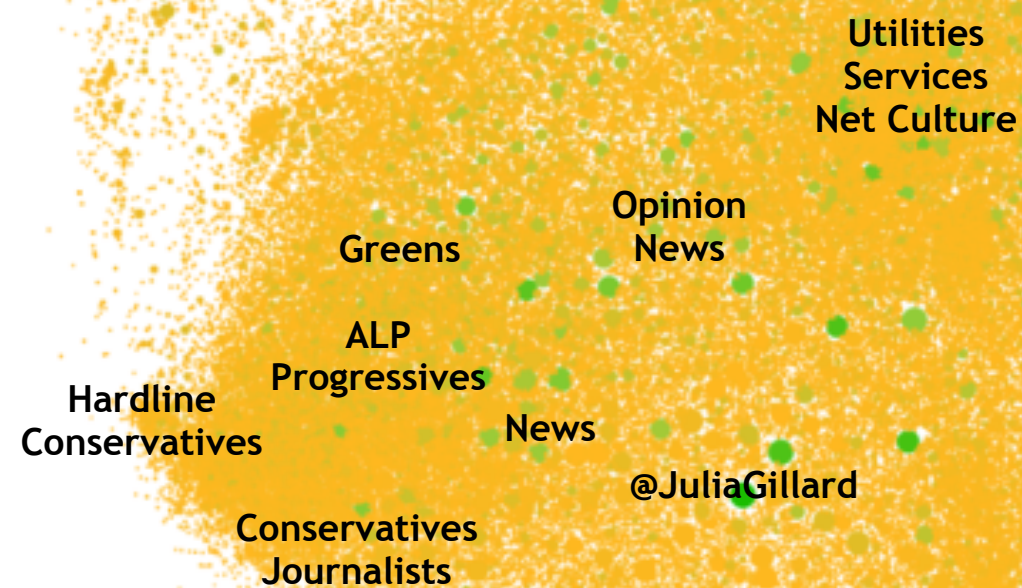
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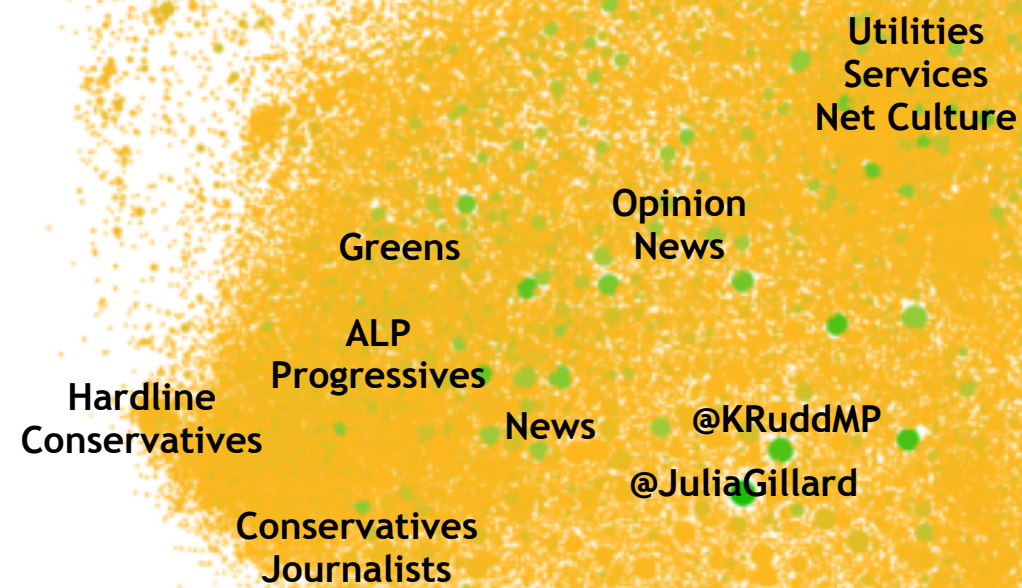
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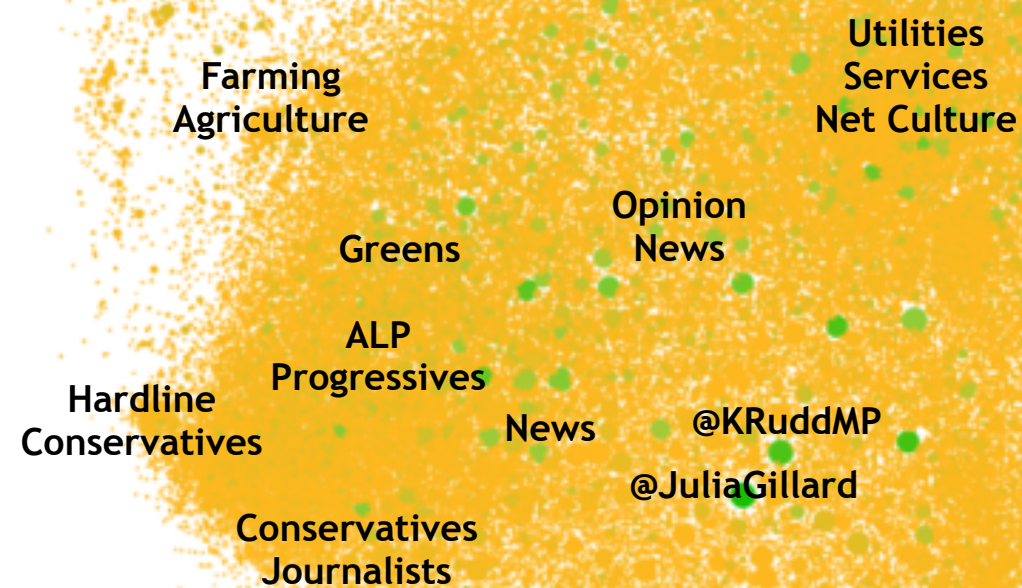
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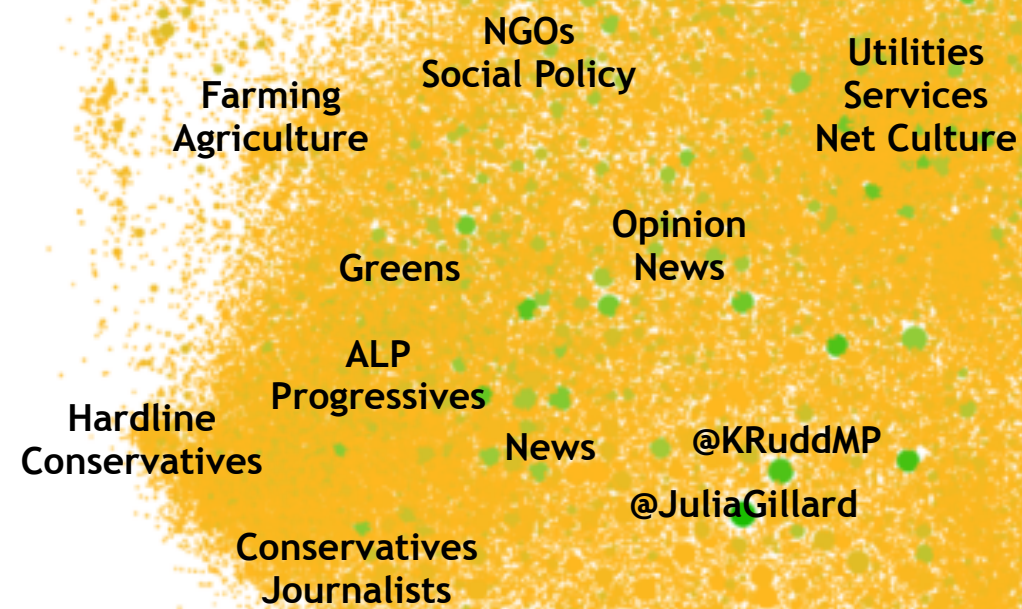
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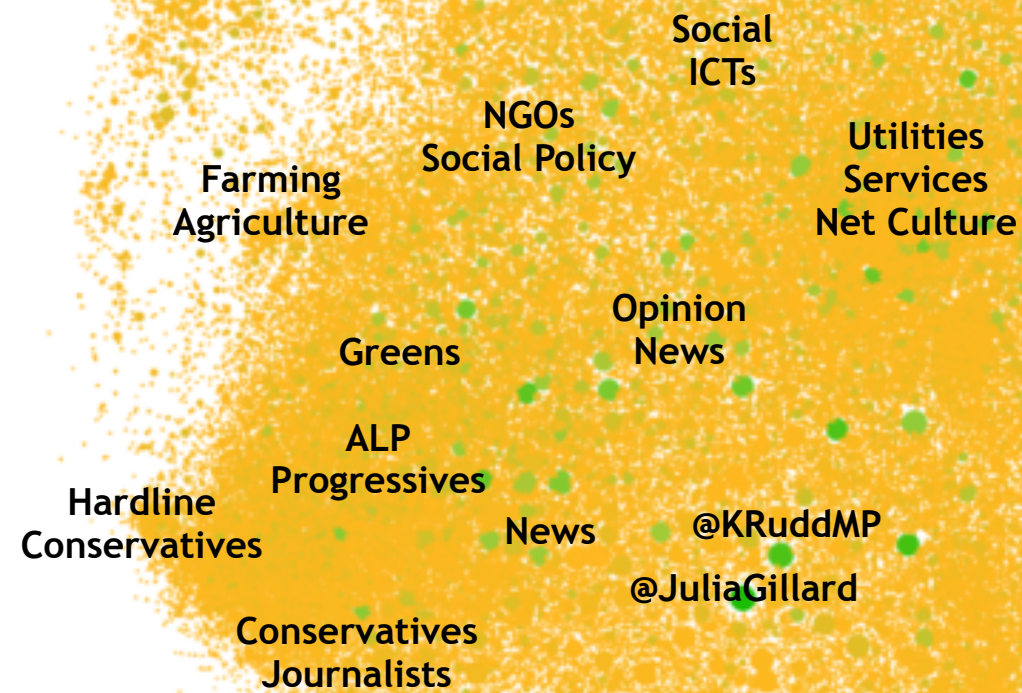
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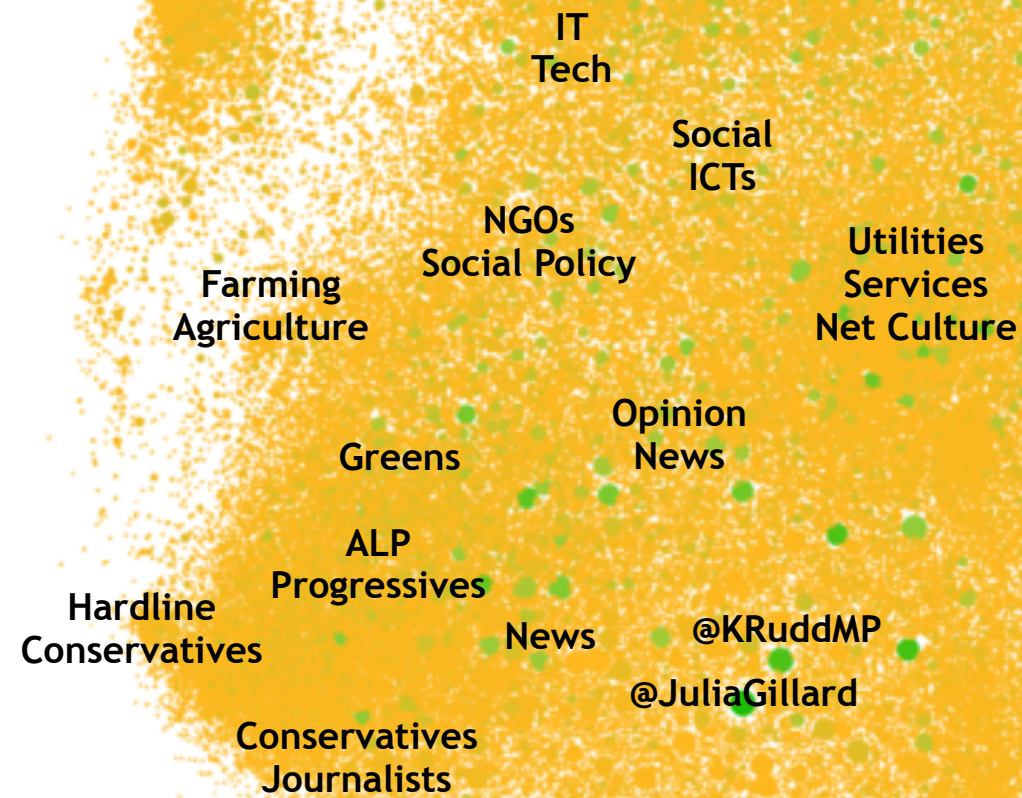
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Thematic Clusters



IT
Tech

Social
ICTs

NGOs
Social Policy

Utilities
Services
Net Culture

Farming
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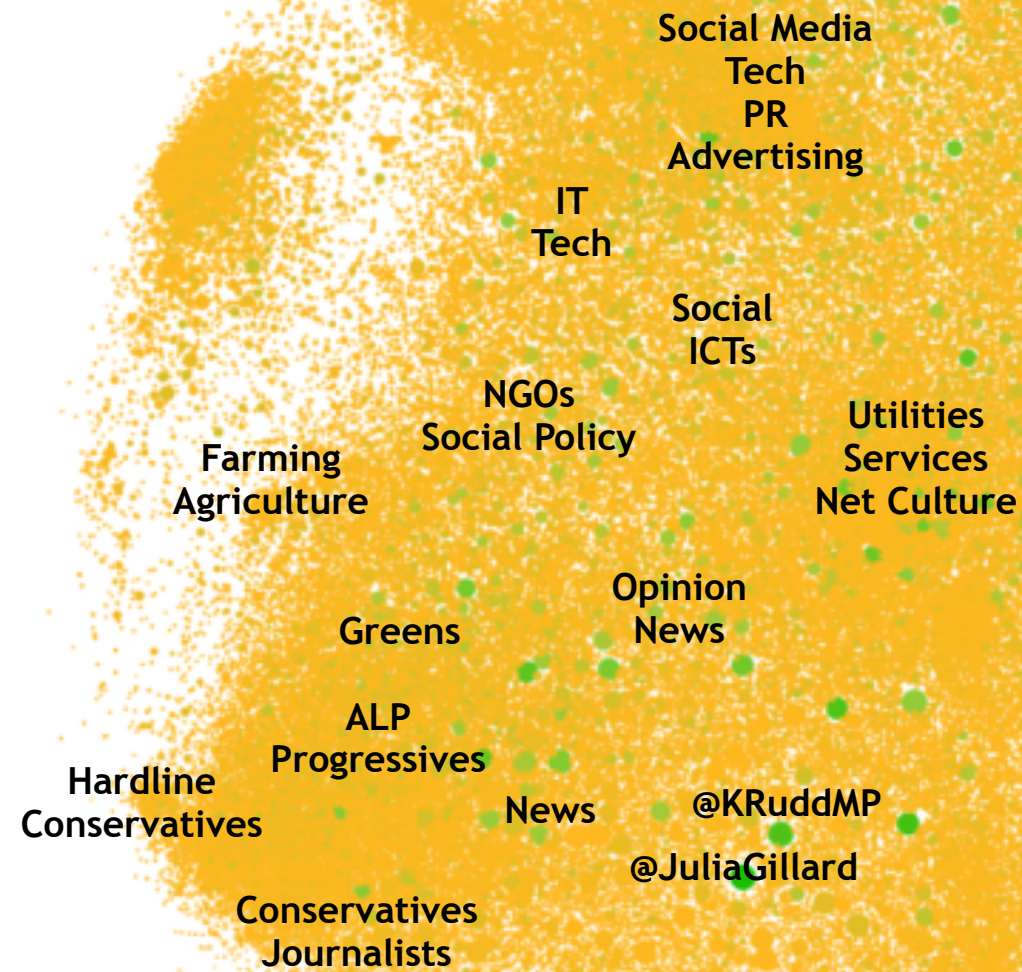
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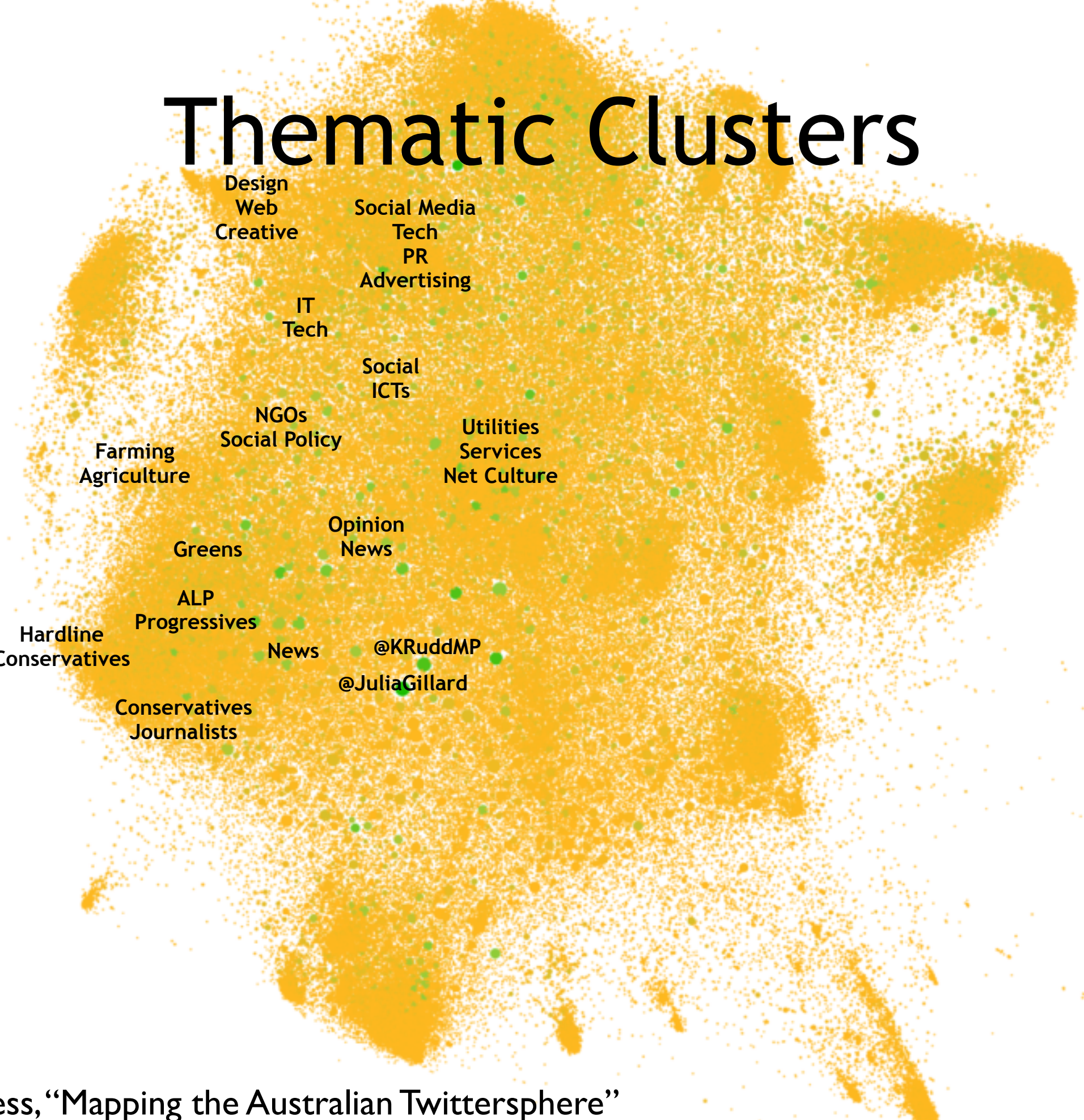
Thematic Clusters



The image displays a large, dense, orange-colored cloud of points, representing the Australian Twittersphere. Various thematic clusters are labeled within the cloud, including:

- Social Media
- Tech
- PR
- Advertising
- IT
- Tech
- Social ICTs
- NGOs
- Social Policy
- Utilities
- Services
- Net Culture
- Farming
- Agriculture
- Opinion
- News
- Greens
- ALP
- Progressives
- Hardline
- Conservatives
- News
- @KRuddMP
- @JuliaGillard
- Conservatives
- Journalists

Thematic Clusters



Design
Web
Creative

Social Media
Tech
PR
Advertising

IT
Tech

Social
ICTs

NGOs
Social Policy

Farming
Agriculture

Utilities
Services
Net Culture

Greens

Opinion
News

ALP
Progressives

Hardline
Conservatives

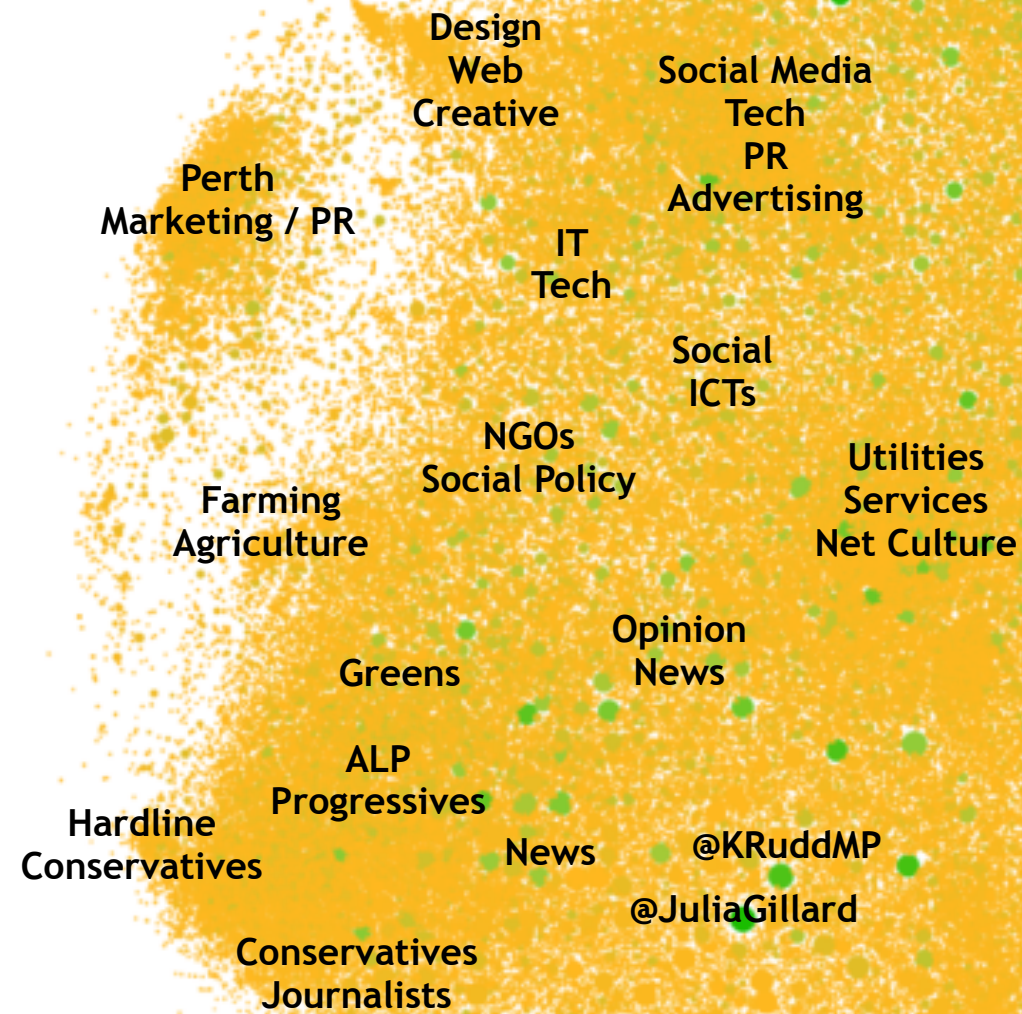
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Conservatives
Journalists

Thematic Clusters



Design
Web
Creative

Social Media
Tech
PR
Advertising

Perth
Marketing / PR

IT
Tech

Social
ICTs

NGOs
Social Policy

Farming
Agriculture

Utilities
Services
Net Culture

Opinion
News

Greens

ALP
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Hardline
Conservatives

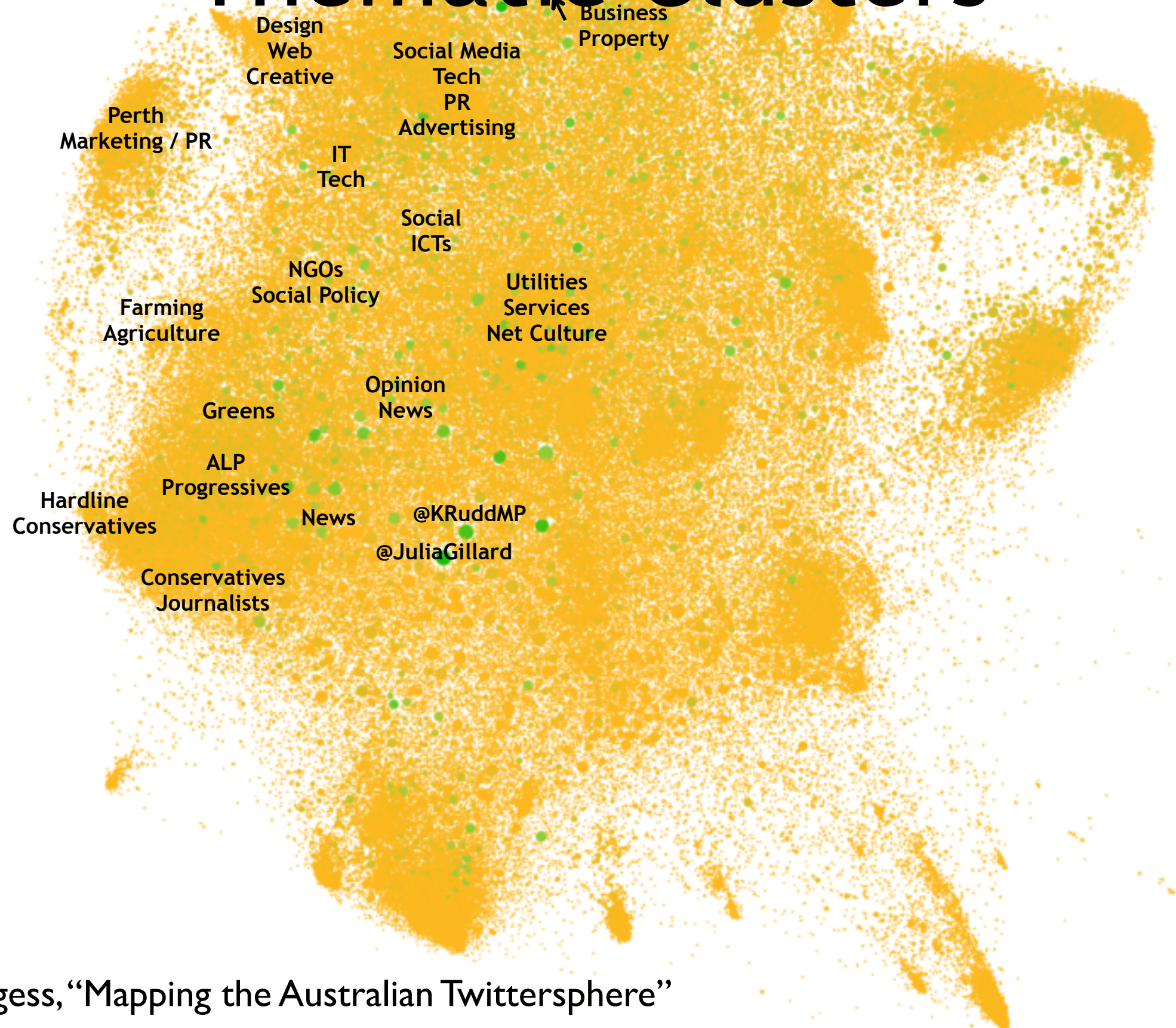
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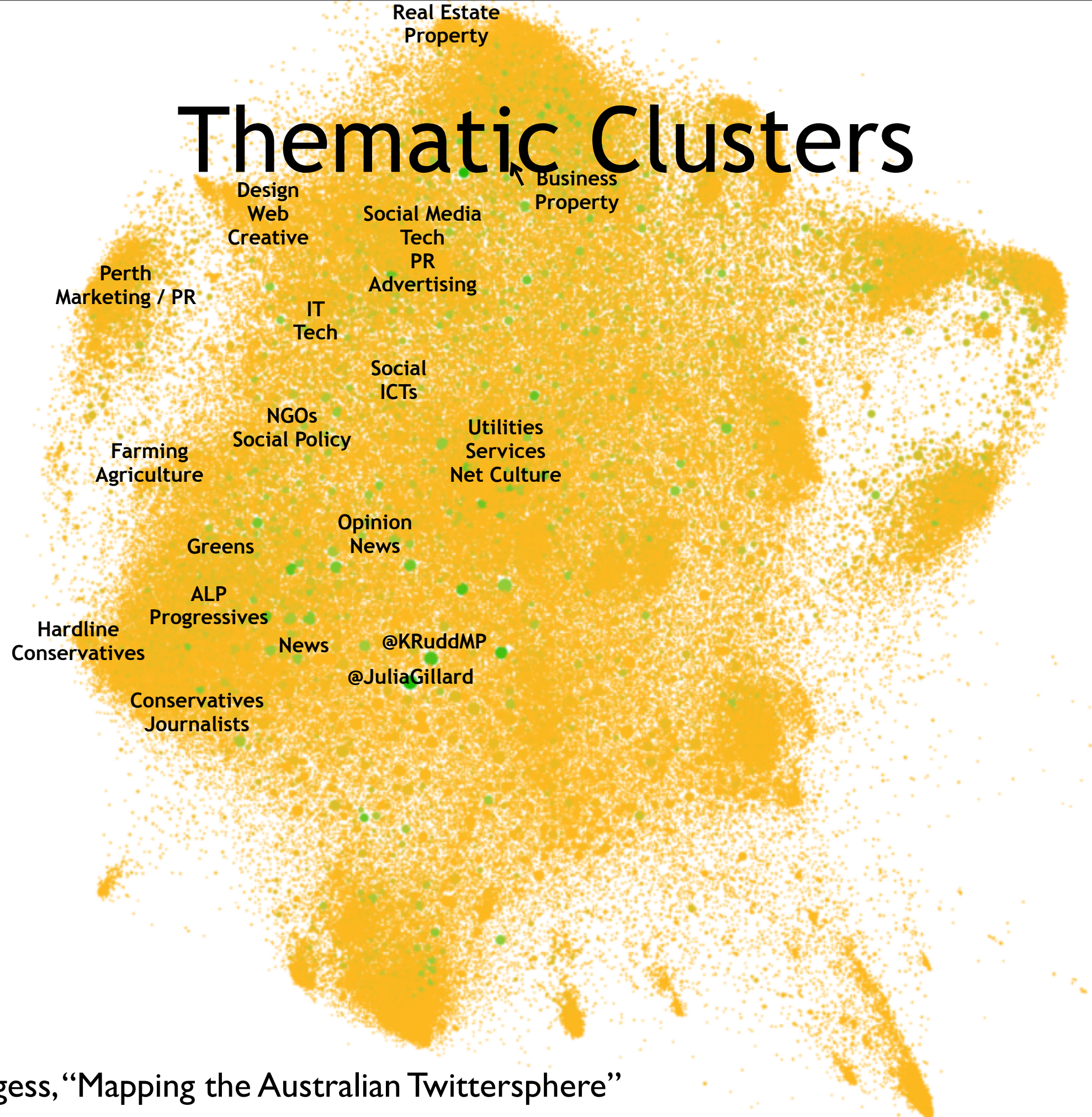
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Journalists

Thematic Clusters



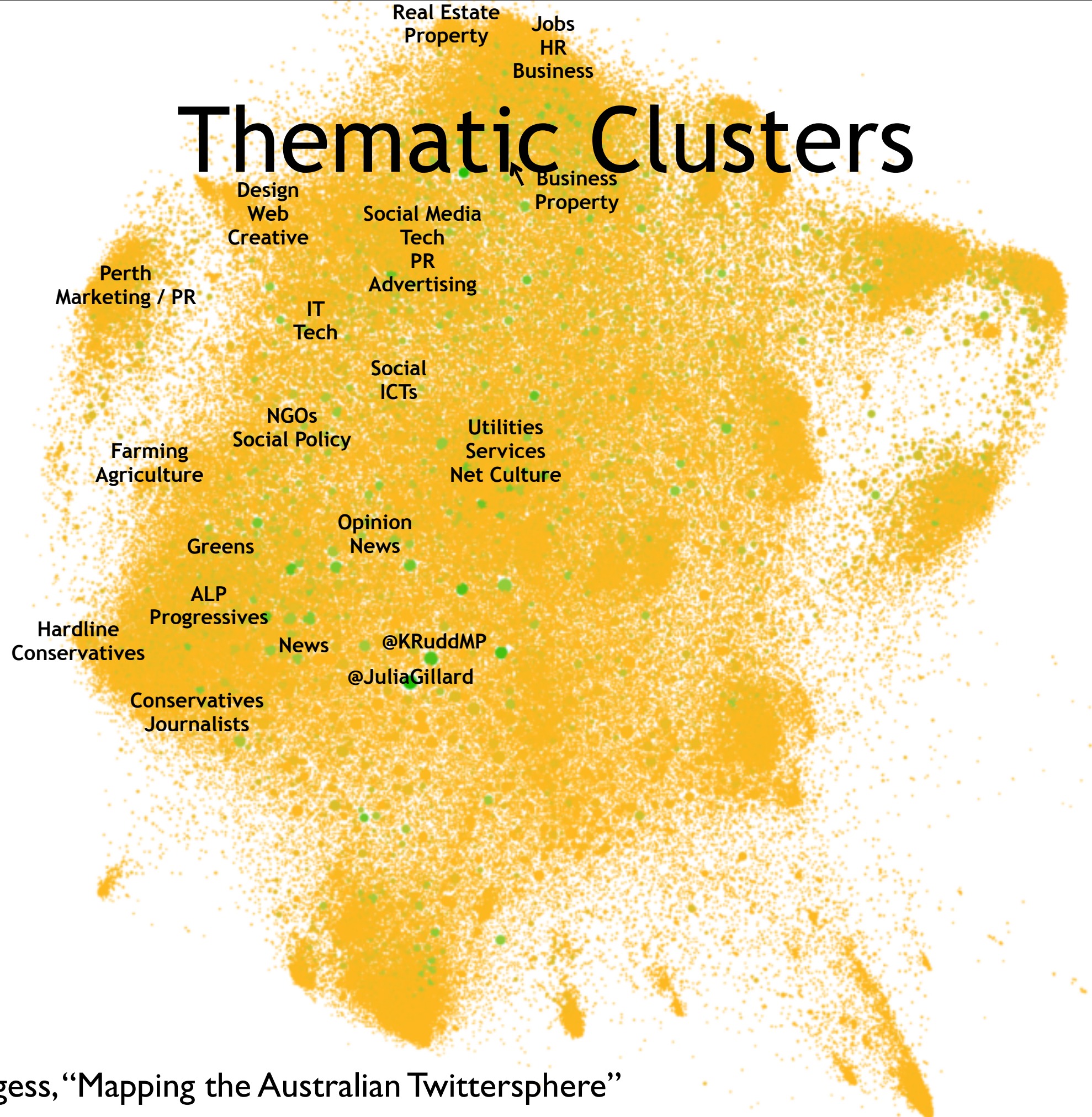
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Thematic Clusters



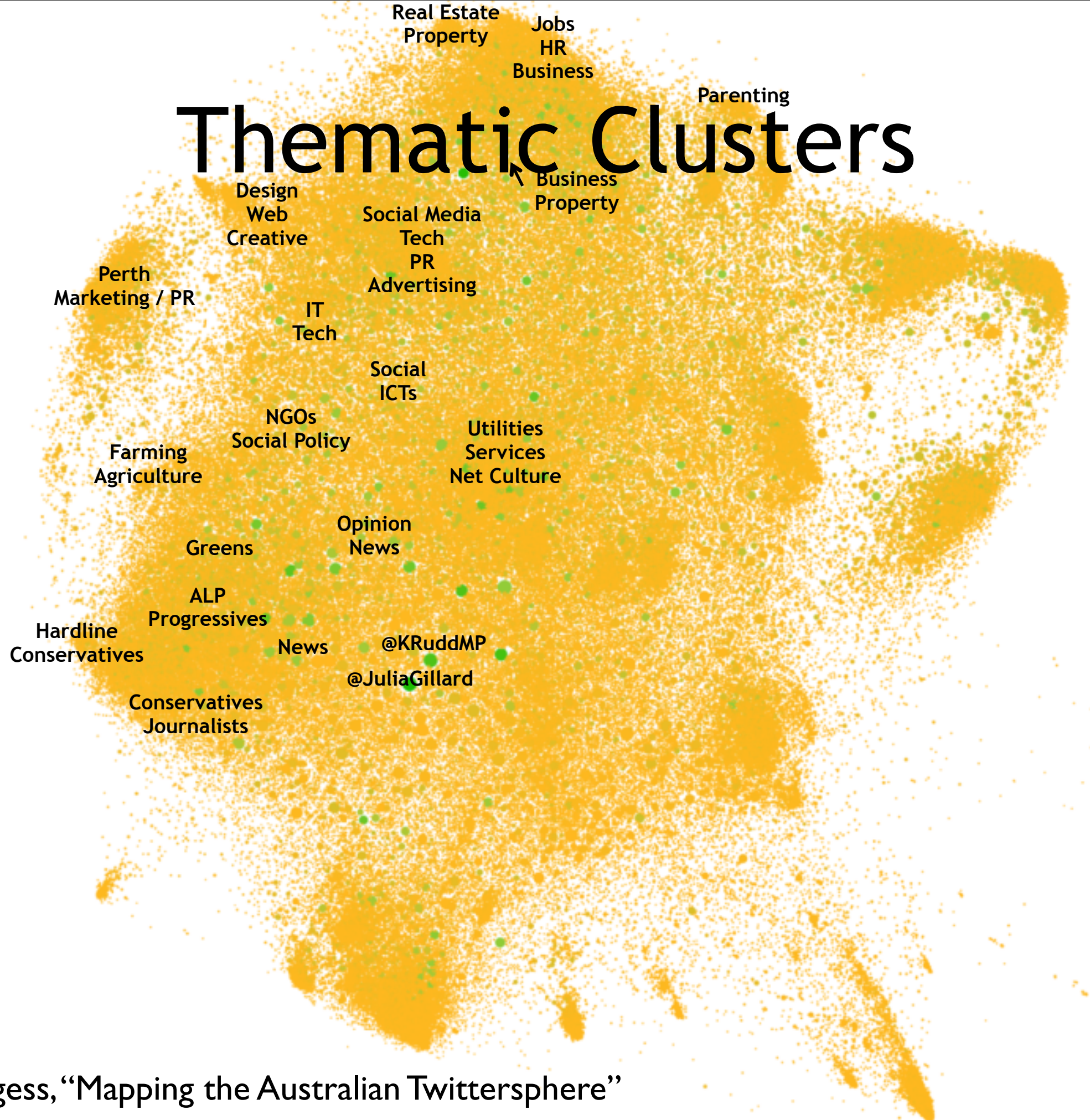
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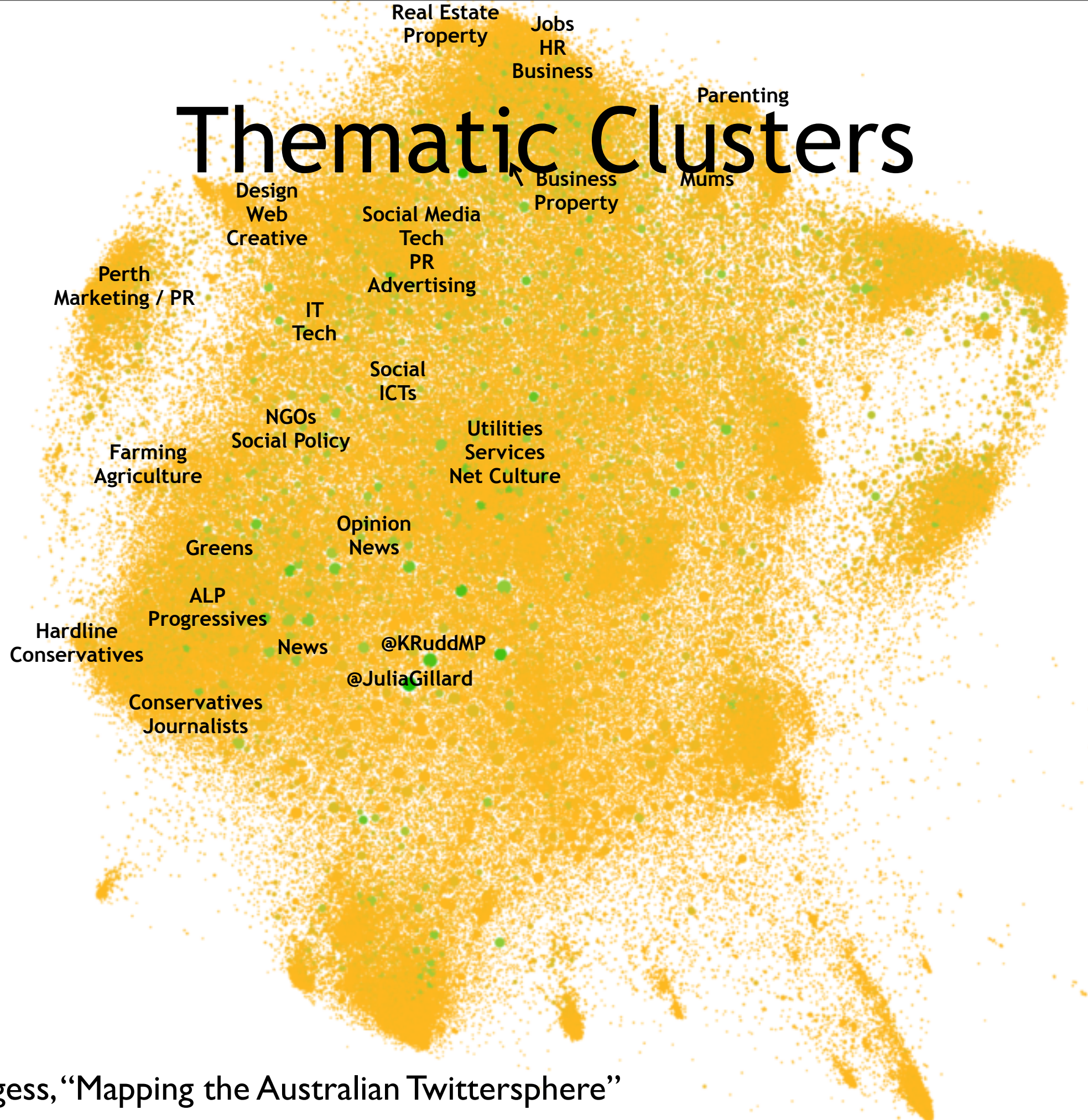
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Thematic Clusters



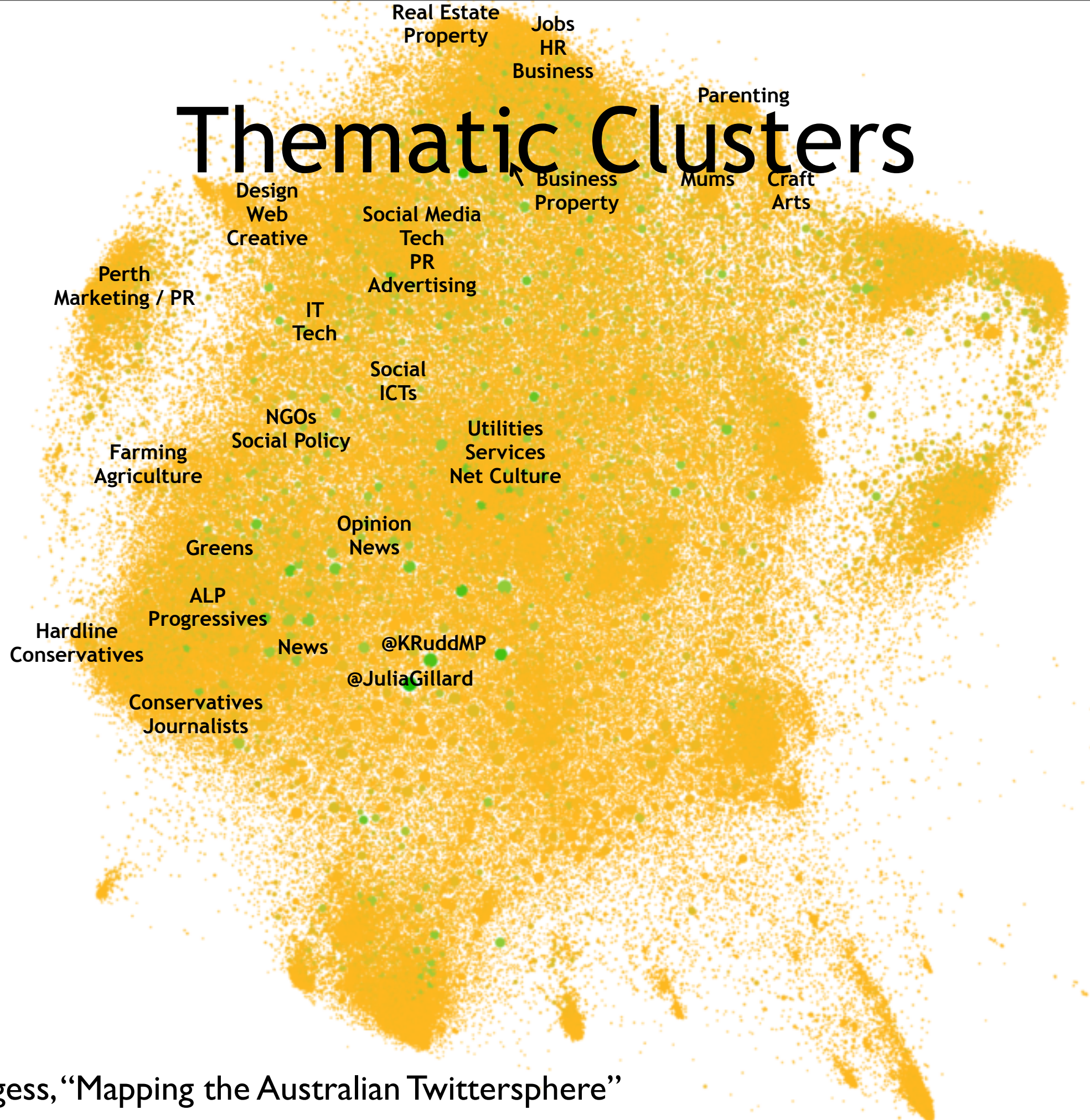
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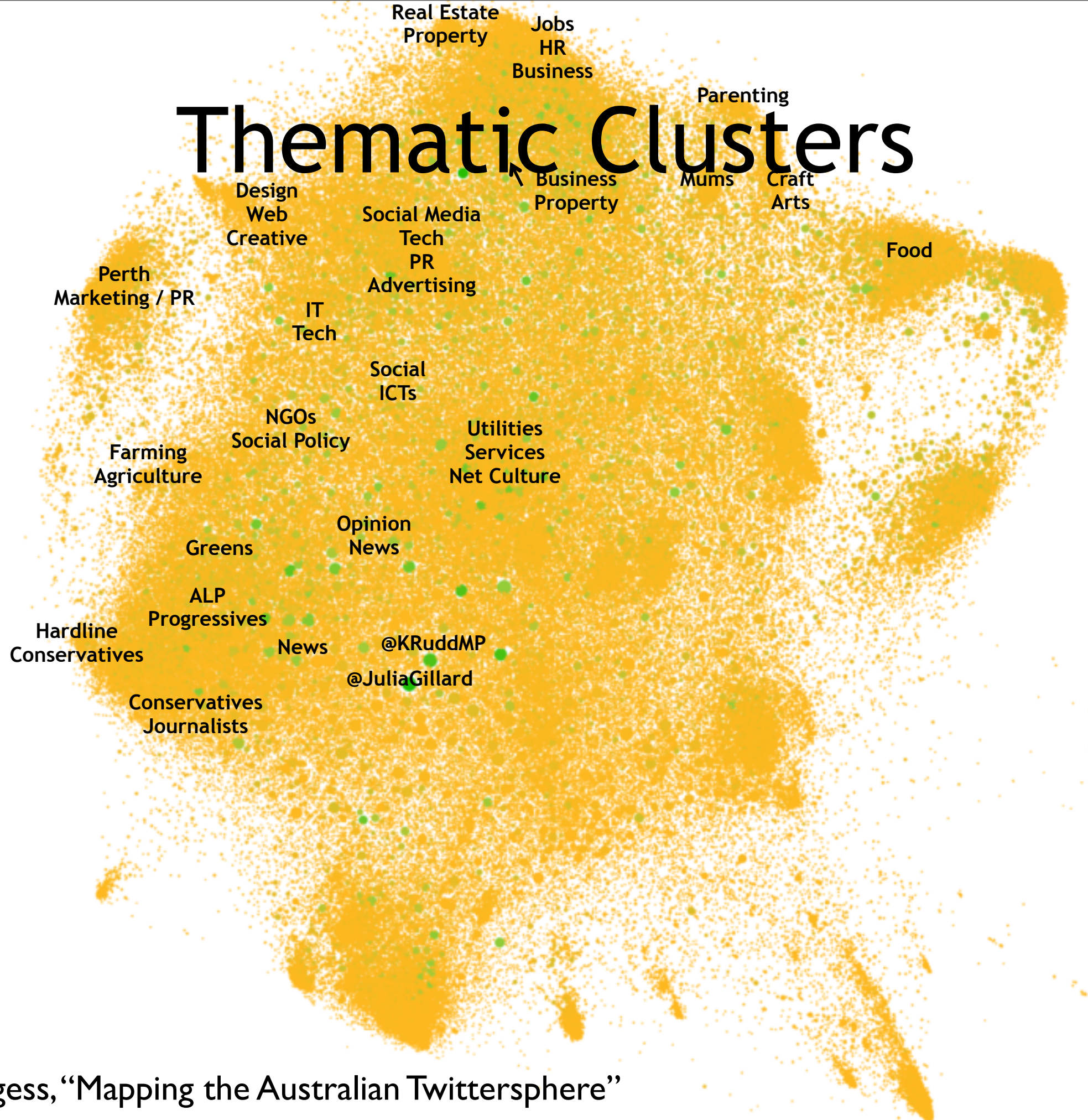
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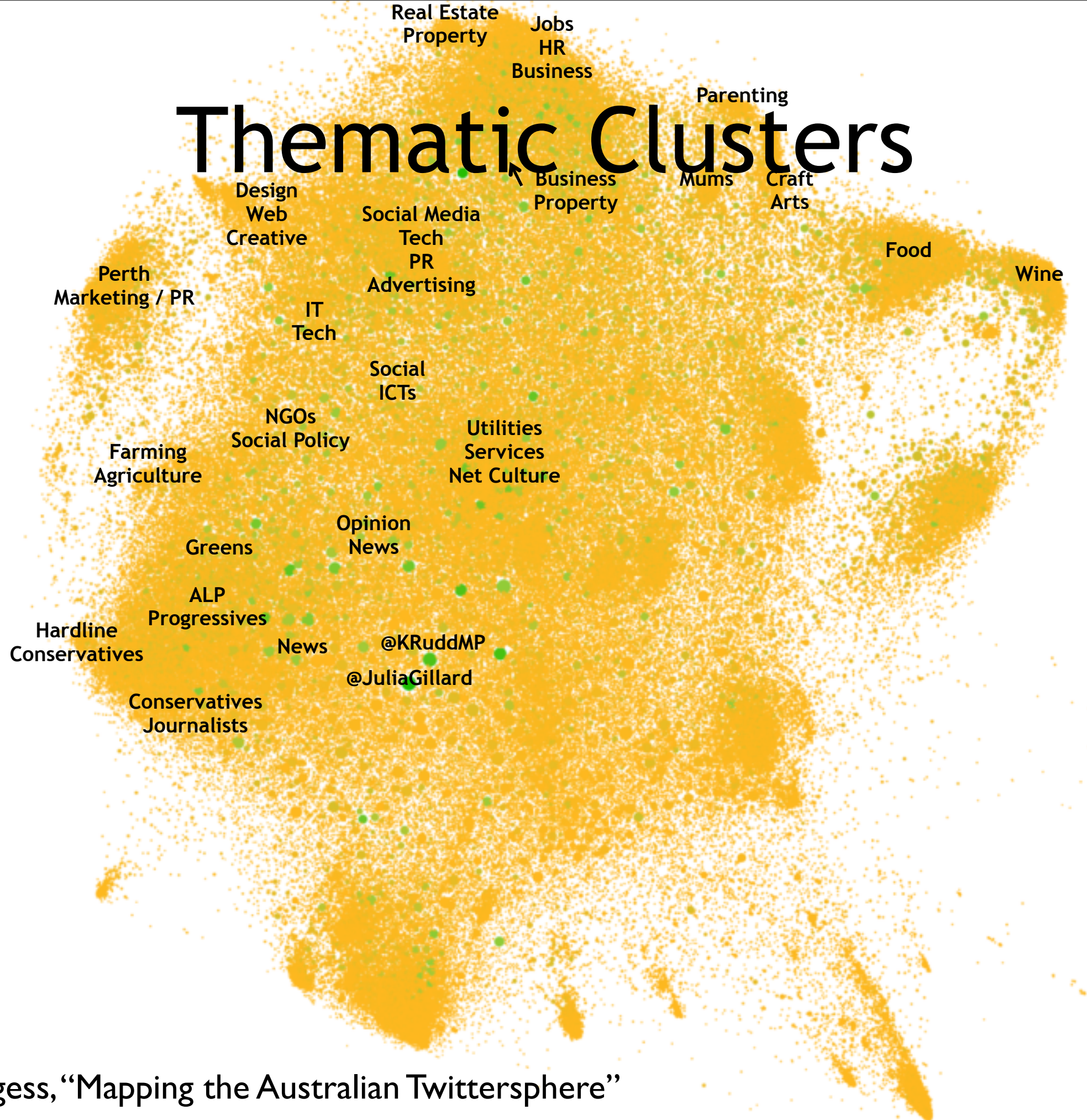
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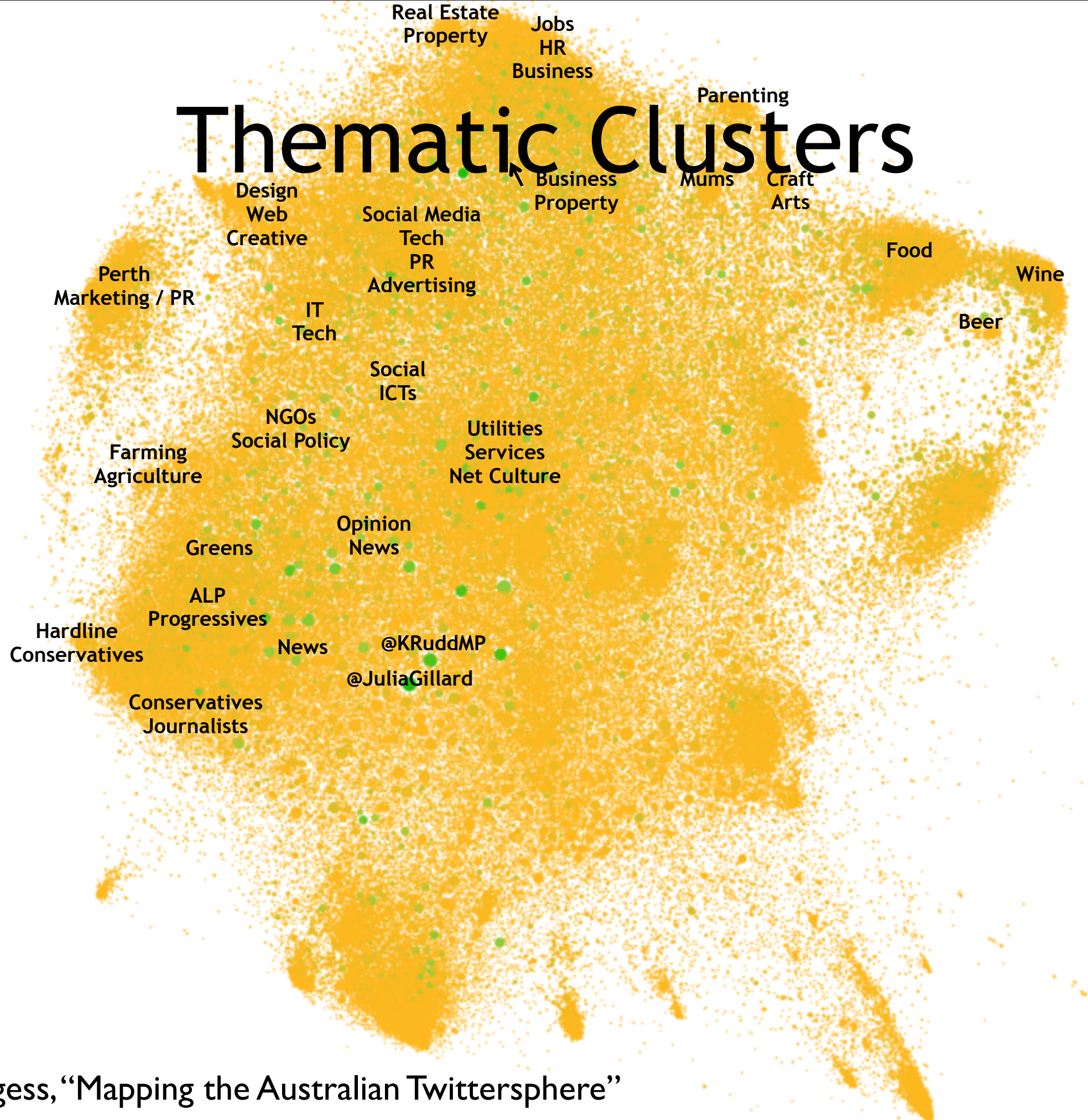
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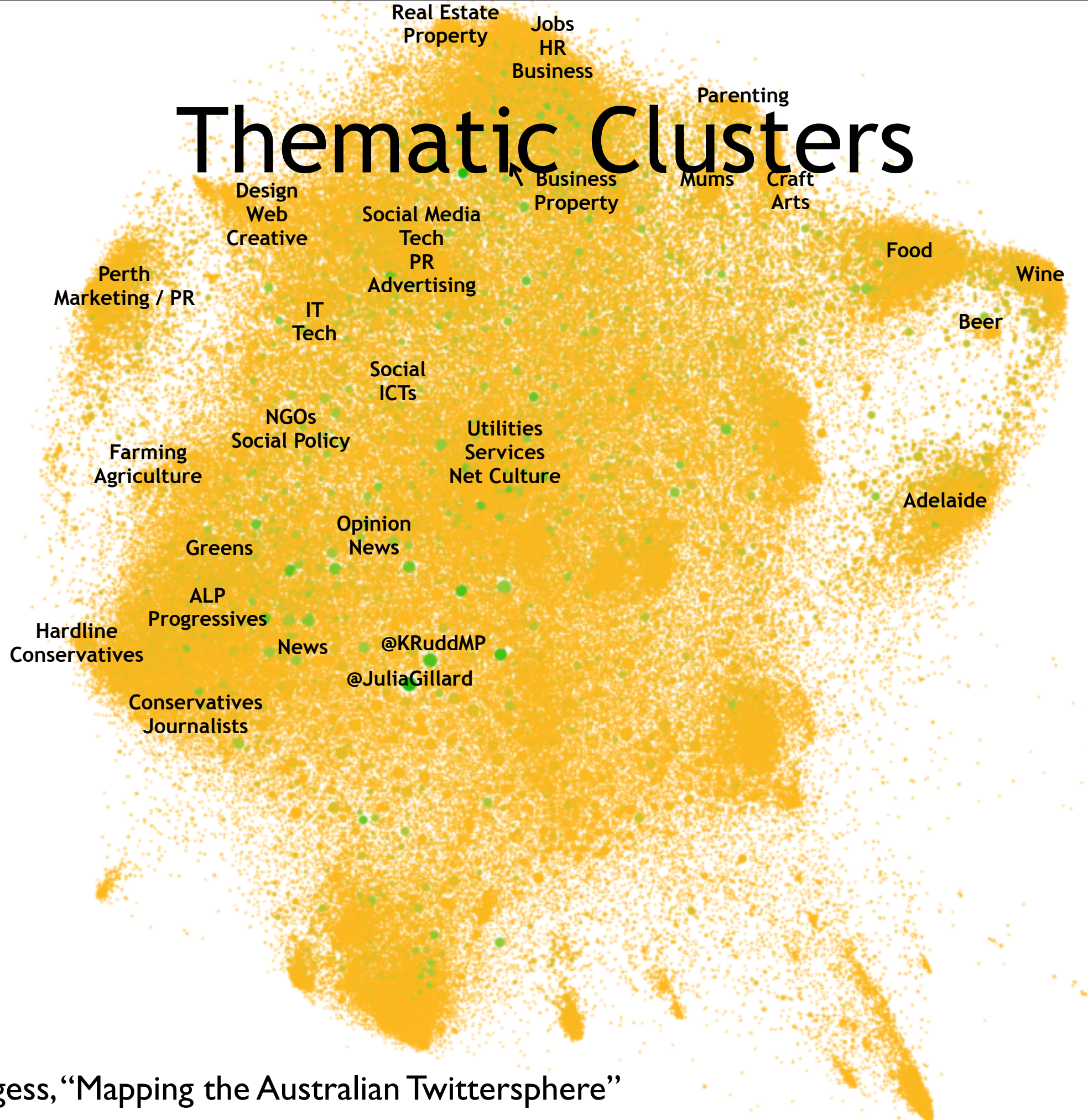
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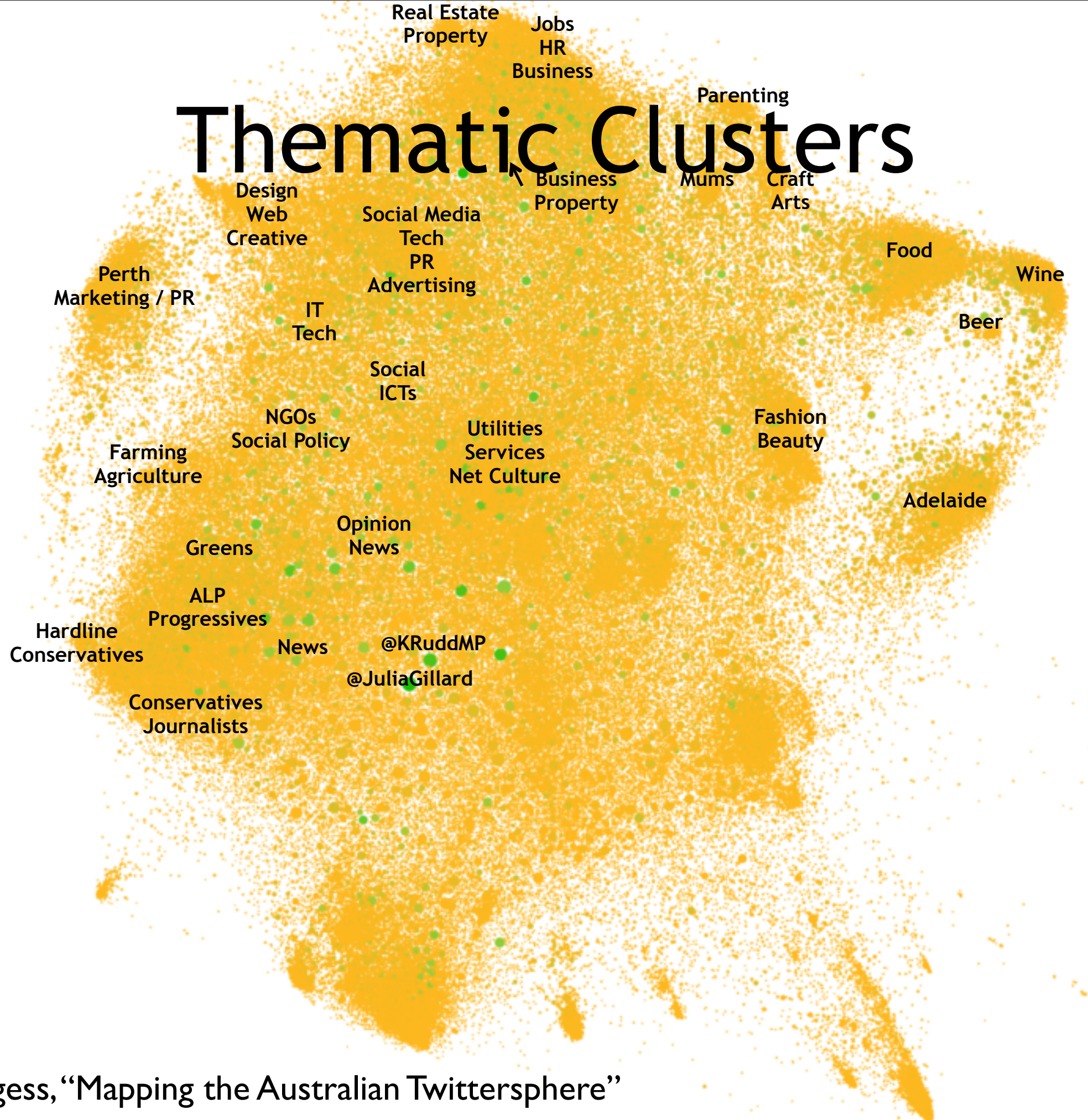
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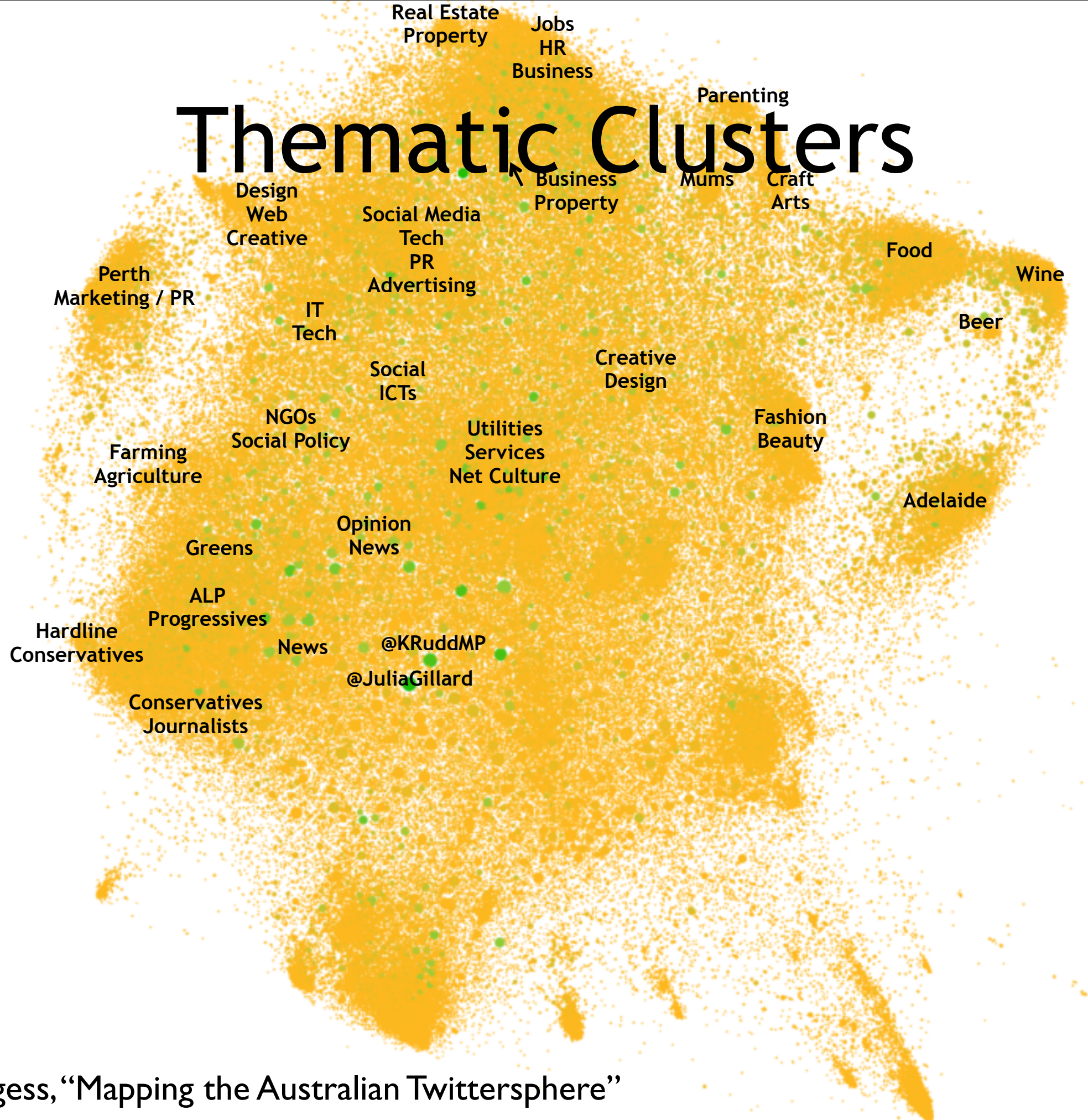
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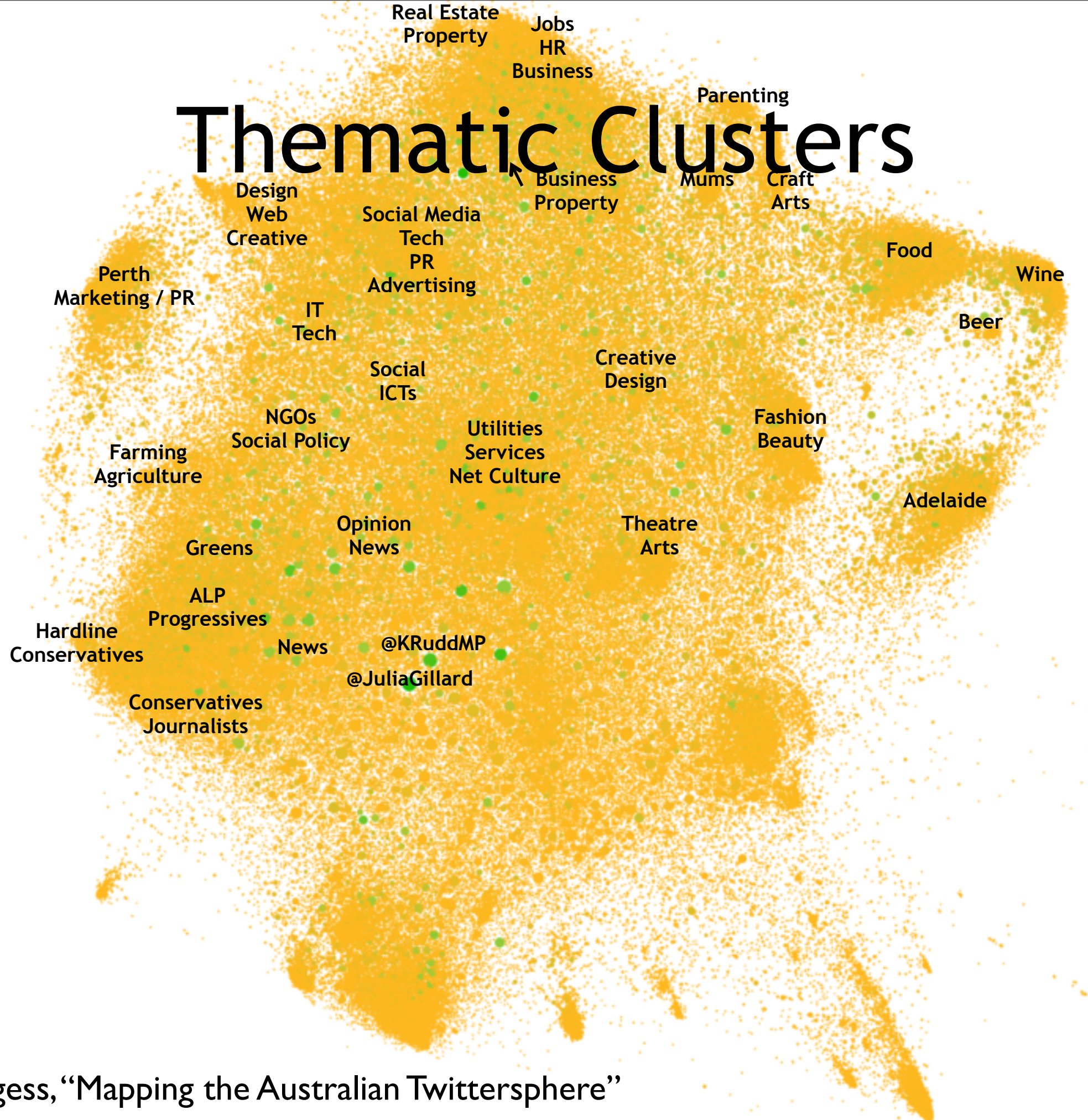
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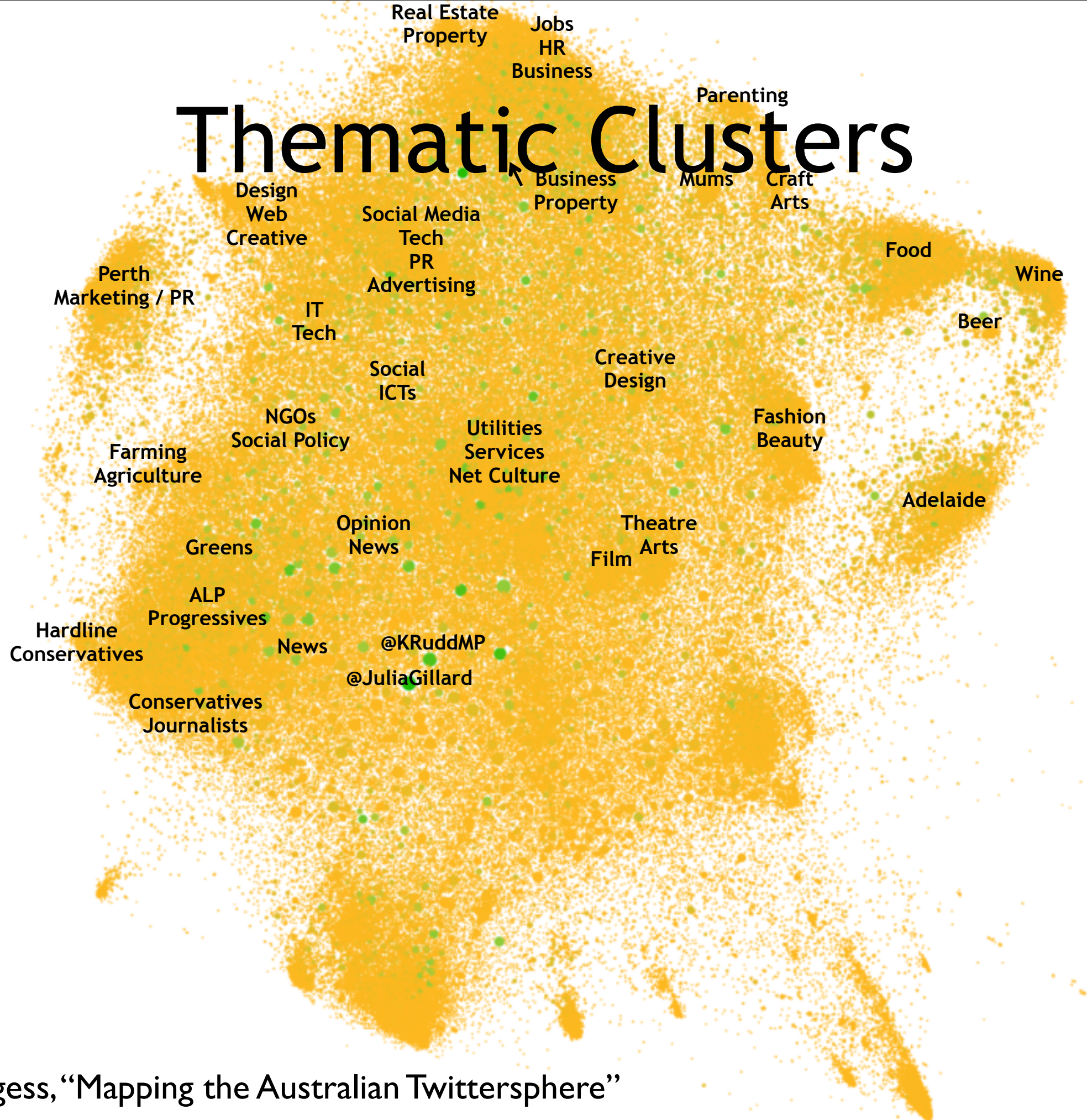
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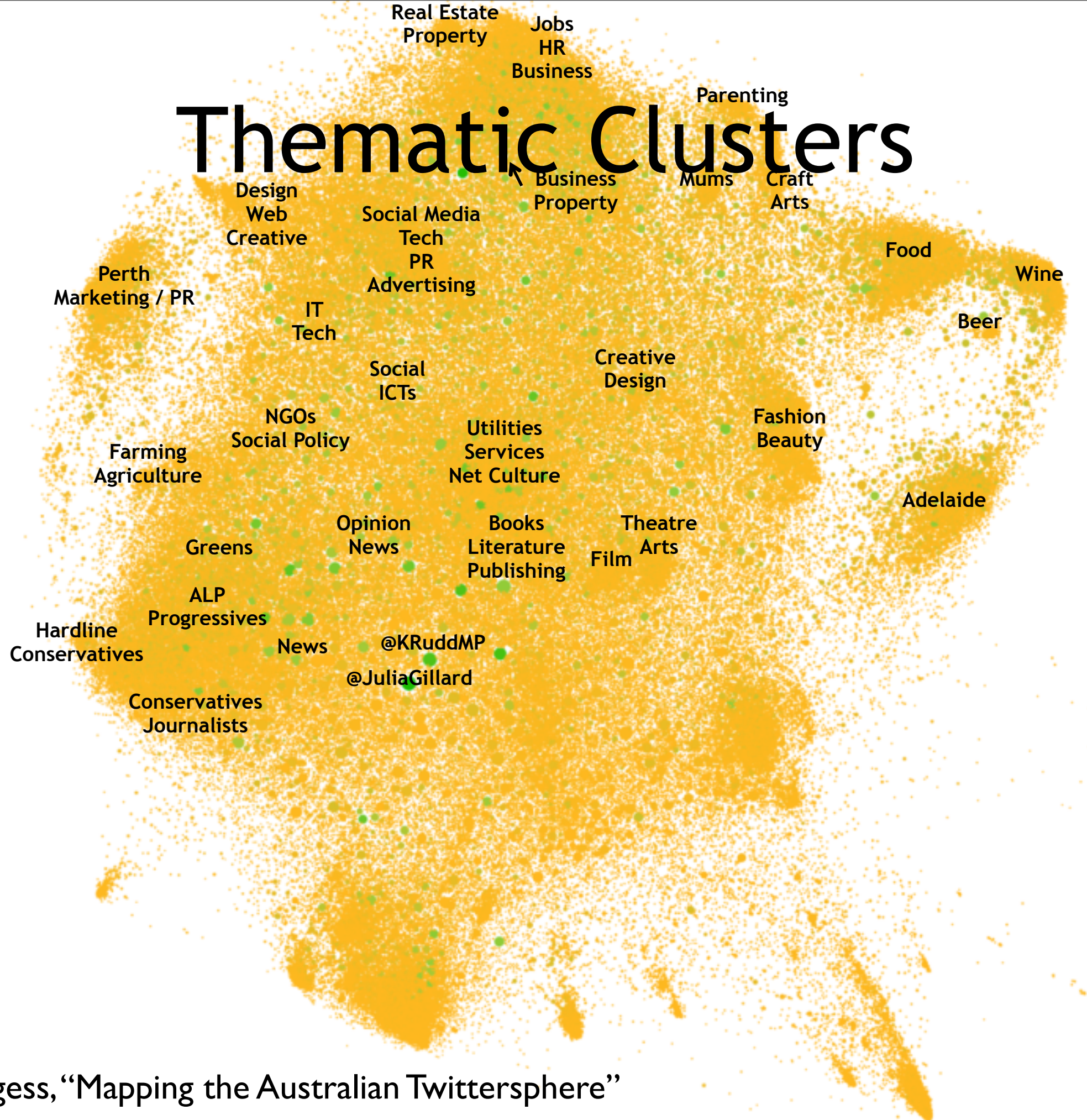
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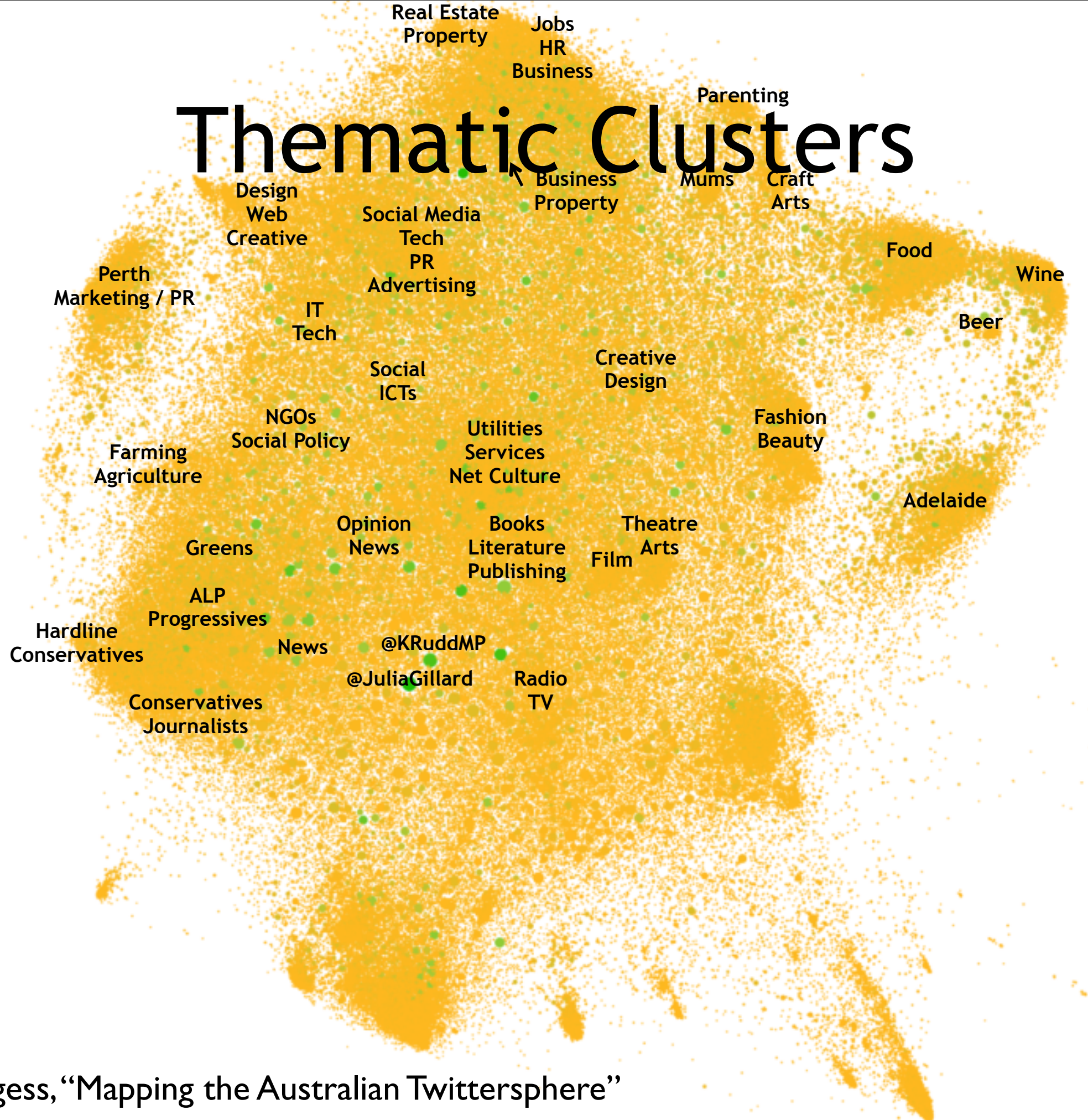
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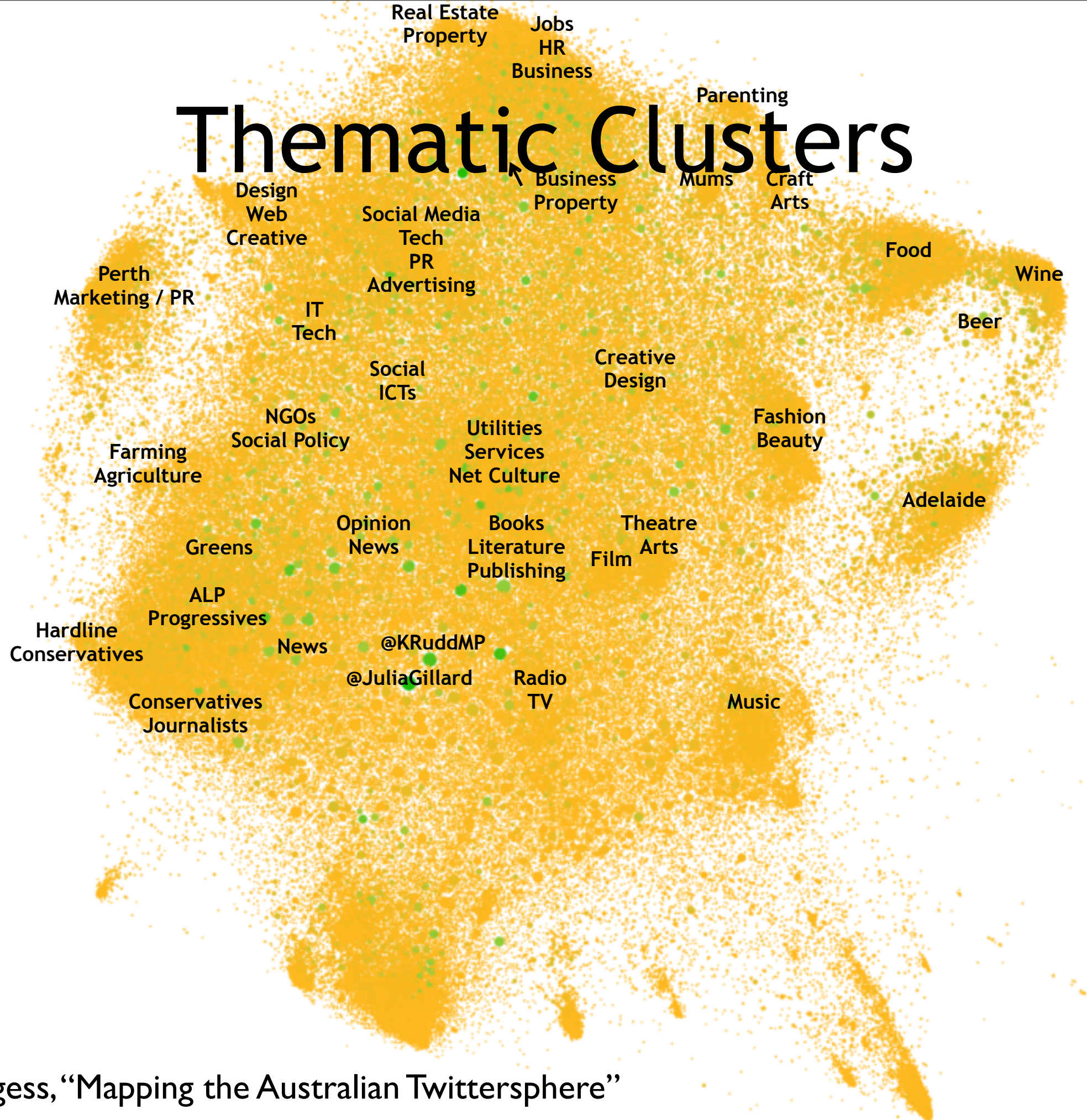
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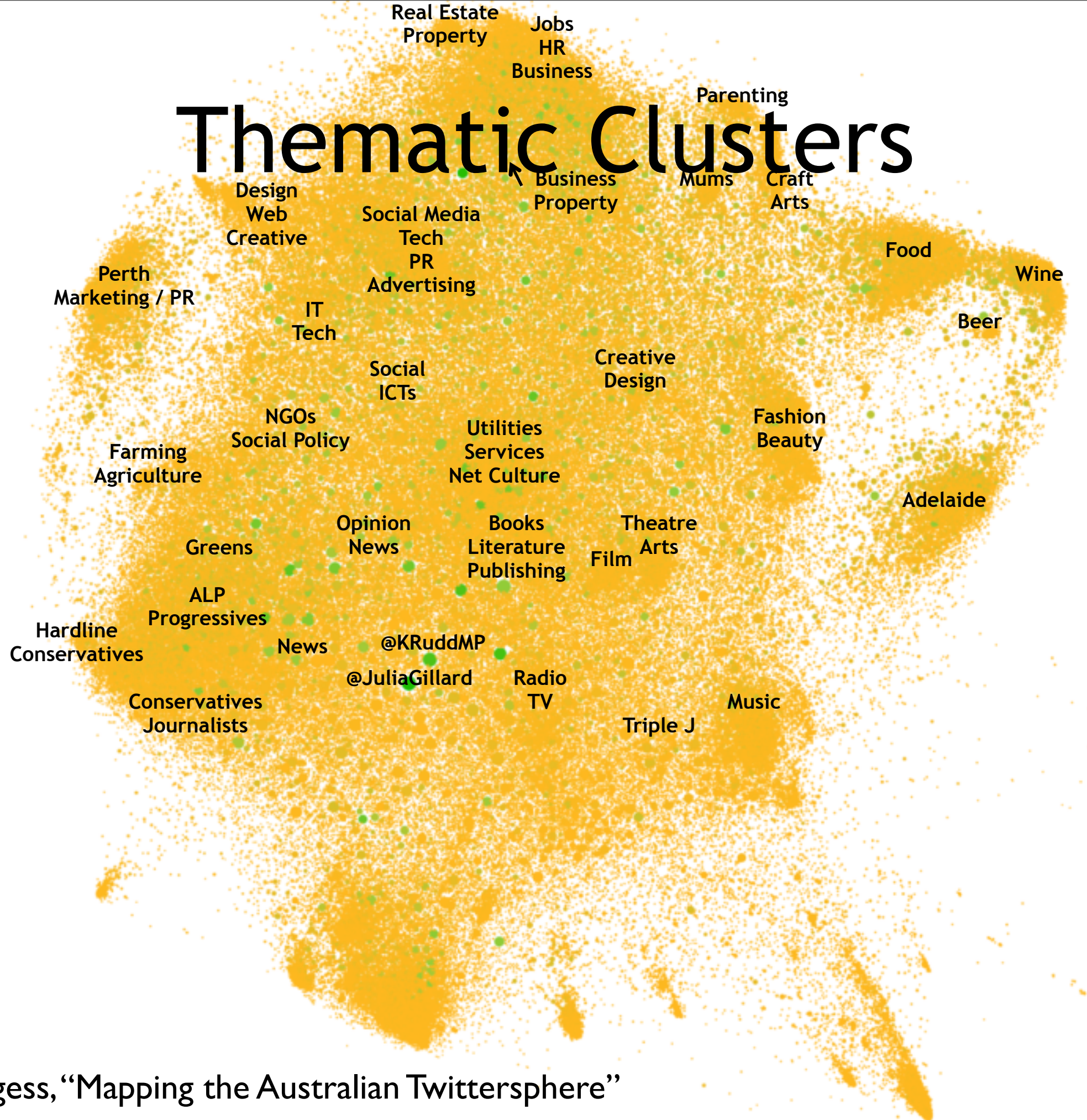
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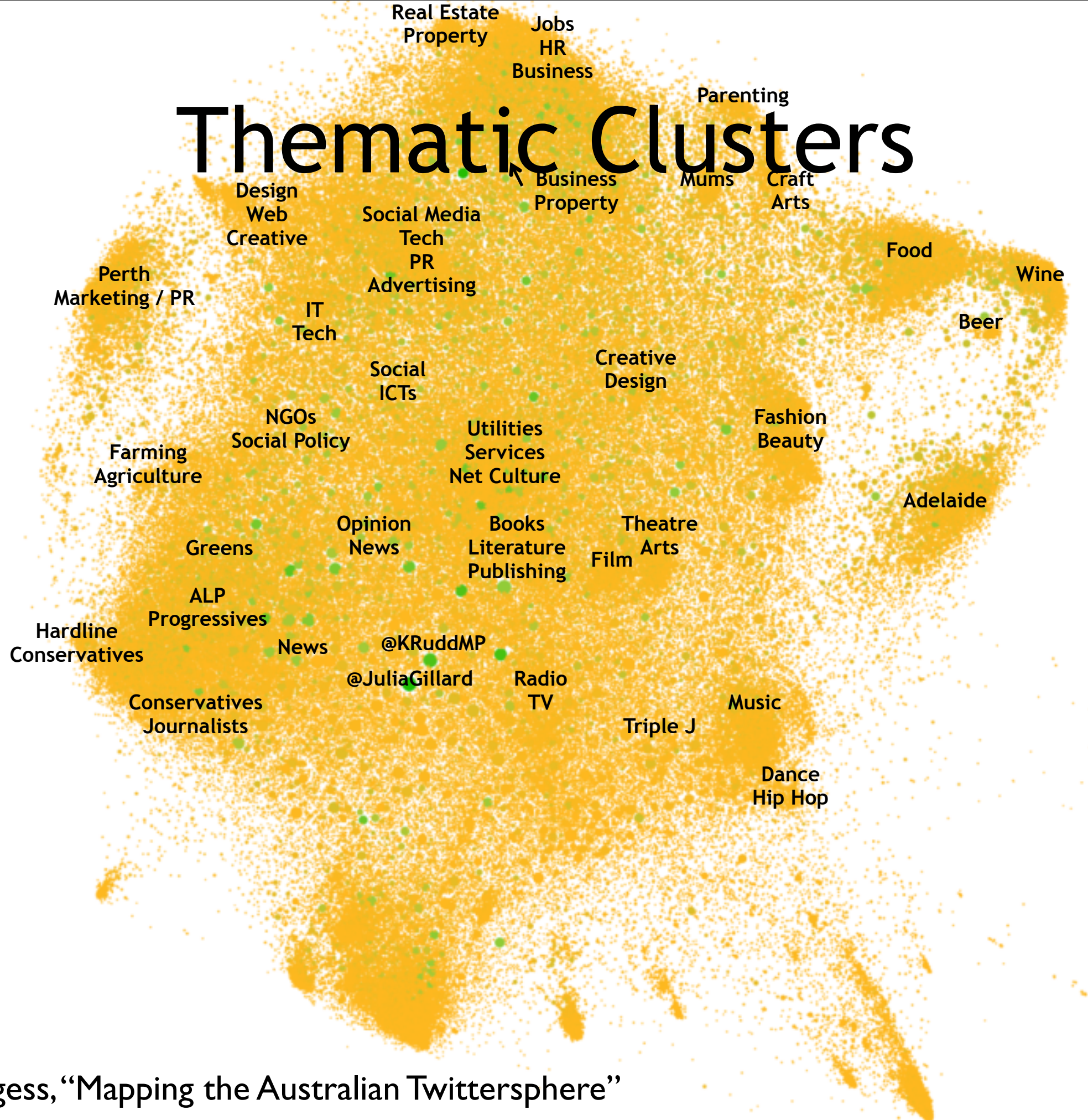
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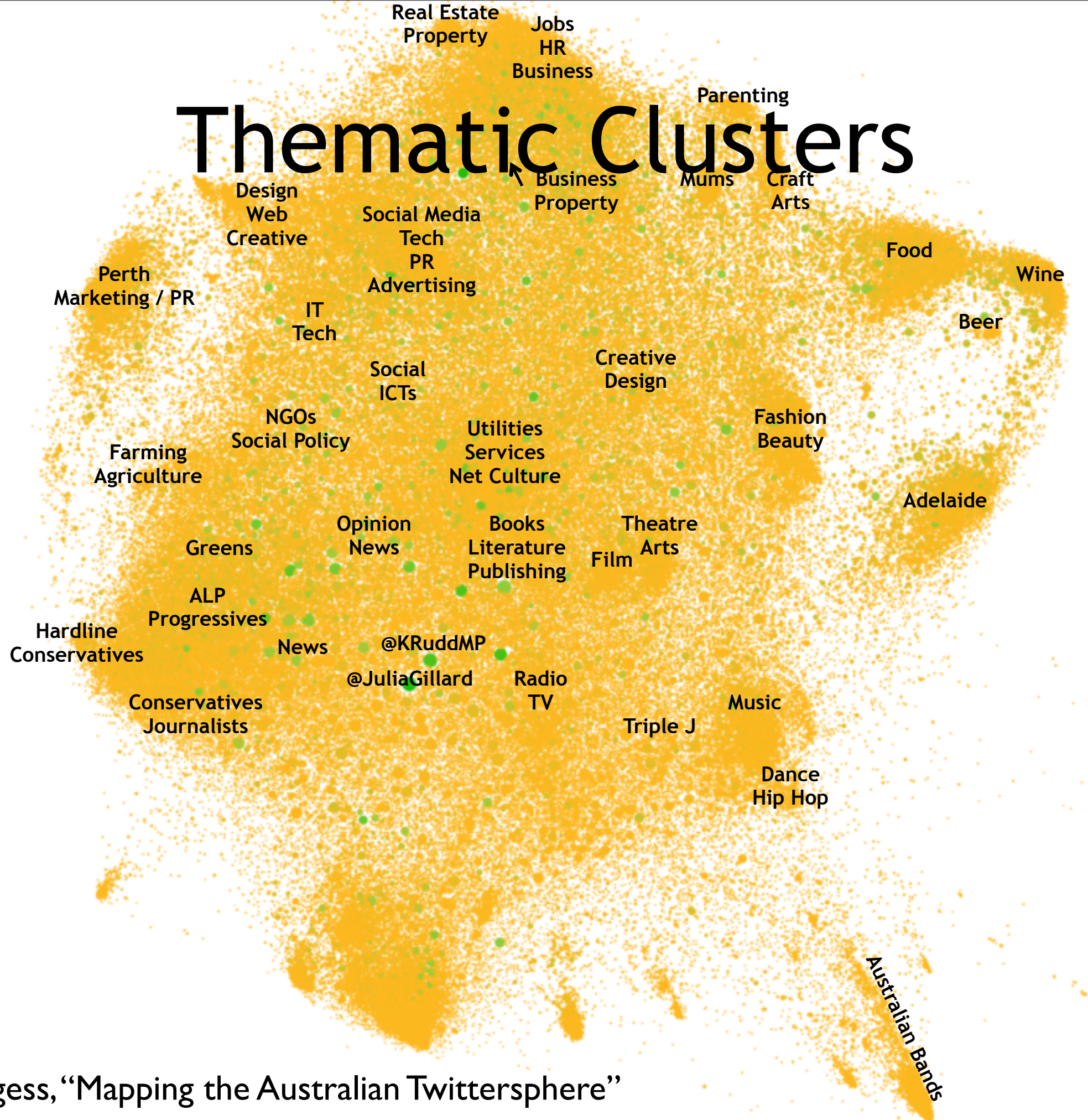
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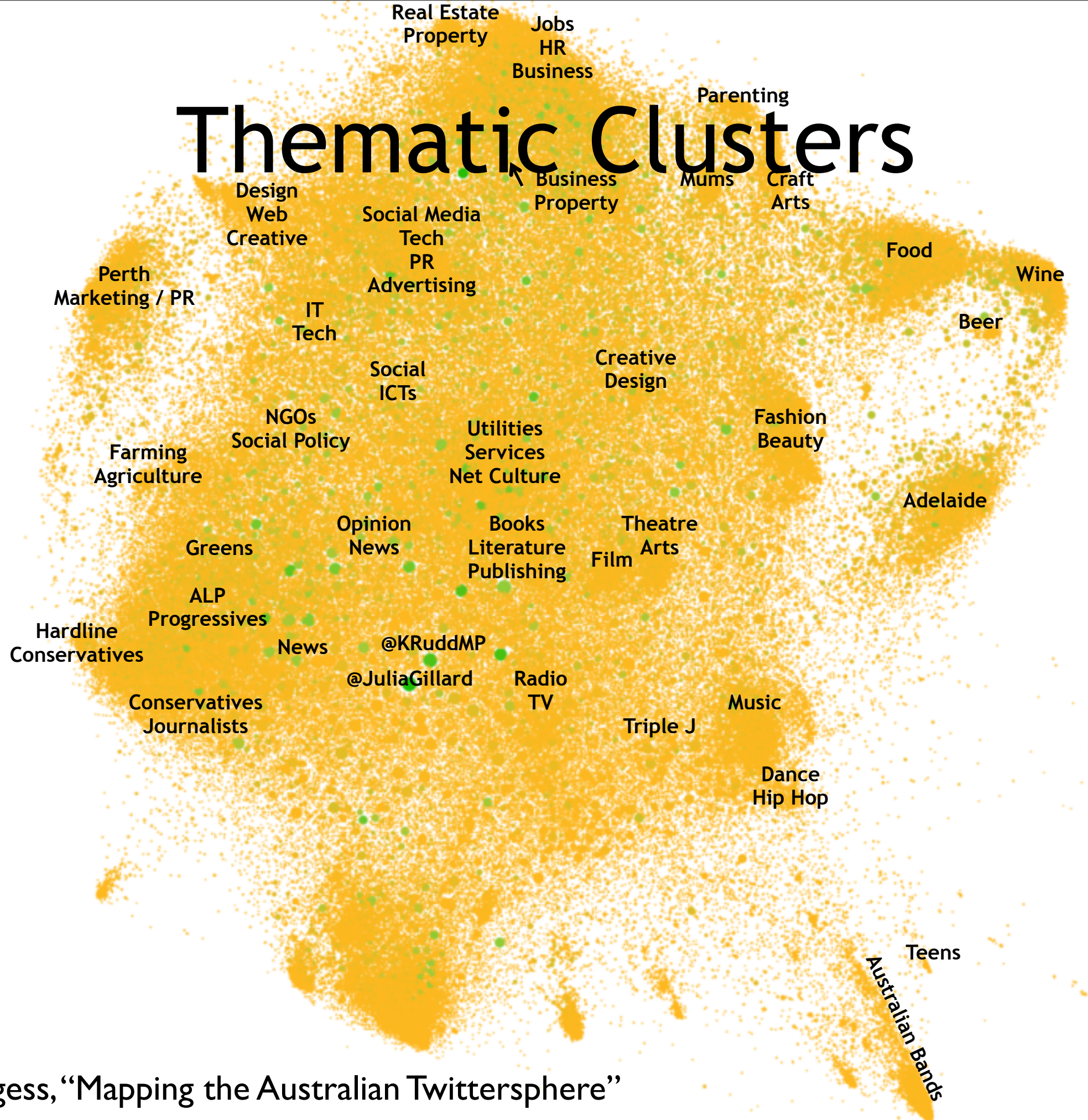
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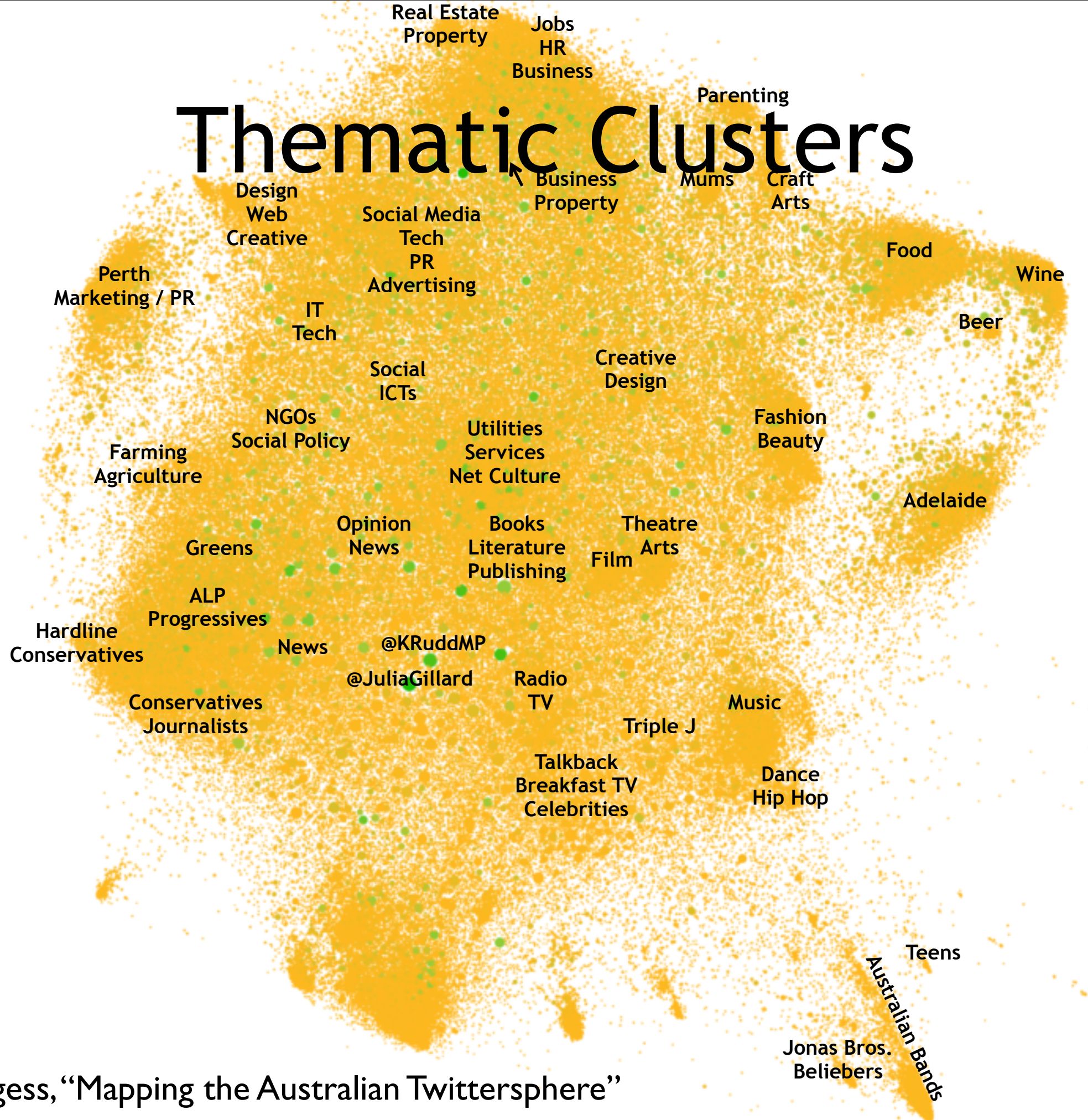
Thematic Clusters

Real Estate
Property
Jobs
HR
Business
Parenting
Mums
Craft
Arts
Food
Wine
Beer
Adelaide
Teens
Australian Bands
Jonas Bros.
Beliebers
Dance
Hip Hop
Music
Triple J
Radio
TV
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News
Conservatives
Journalists
ALP
Progressives
Greens
Farming
Agriculture
Perth
Marketing / PR
Design
Web
Creative
Social Media
Tech
PR
Advertising
IT
Tech
Social
ICTs
NGOs
Social Policy
Utilities
Services
Net Culture
Books
Literature
Publishing
Theatre
Arts
Film
Creative
Design
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Beauty
Adelaide
Beer
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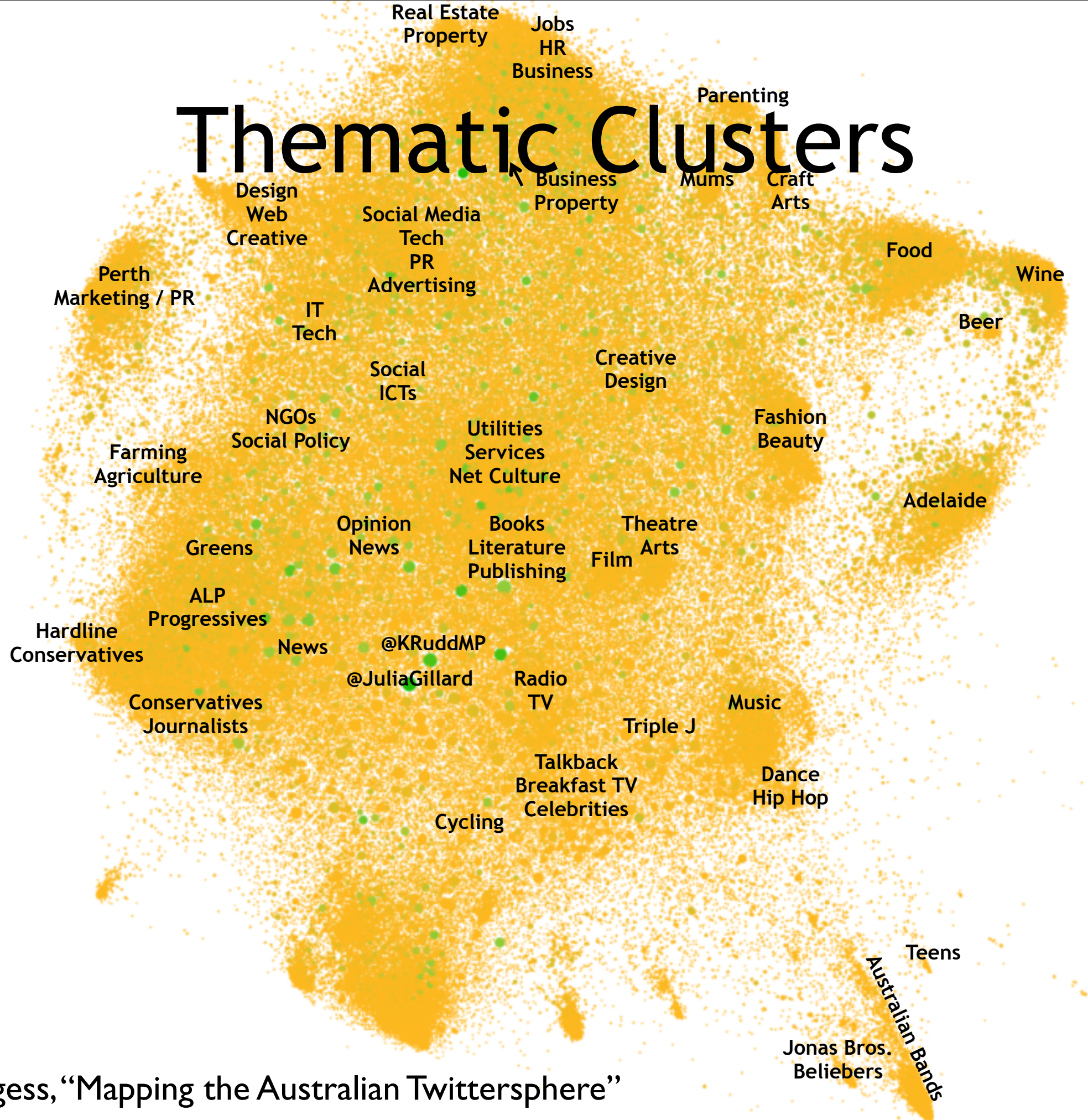
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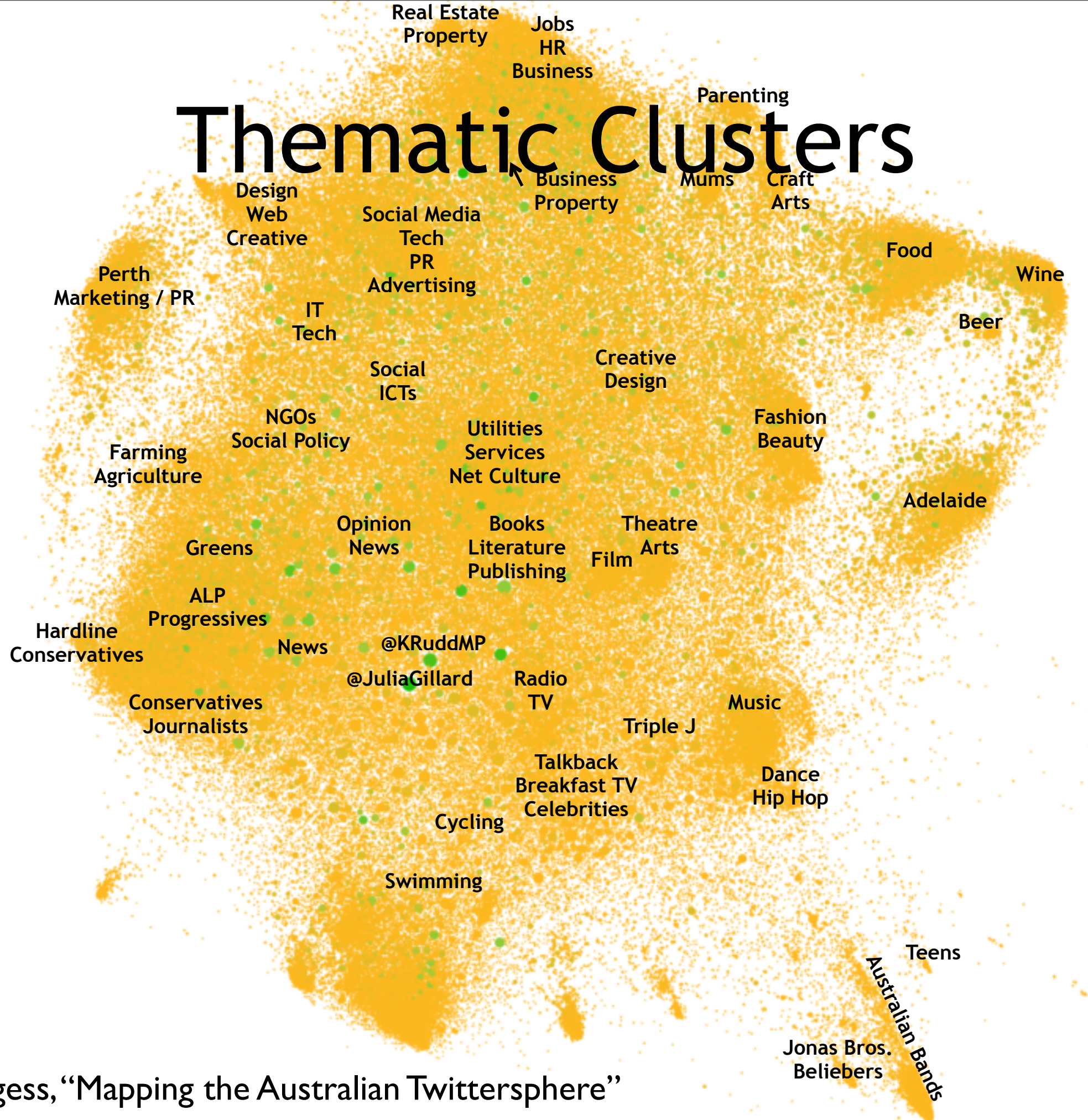
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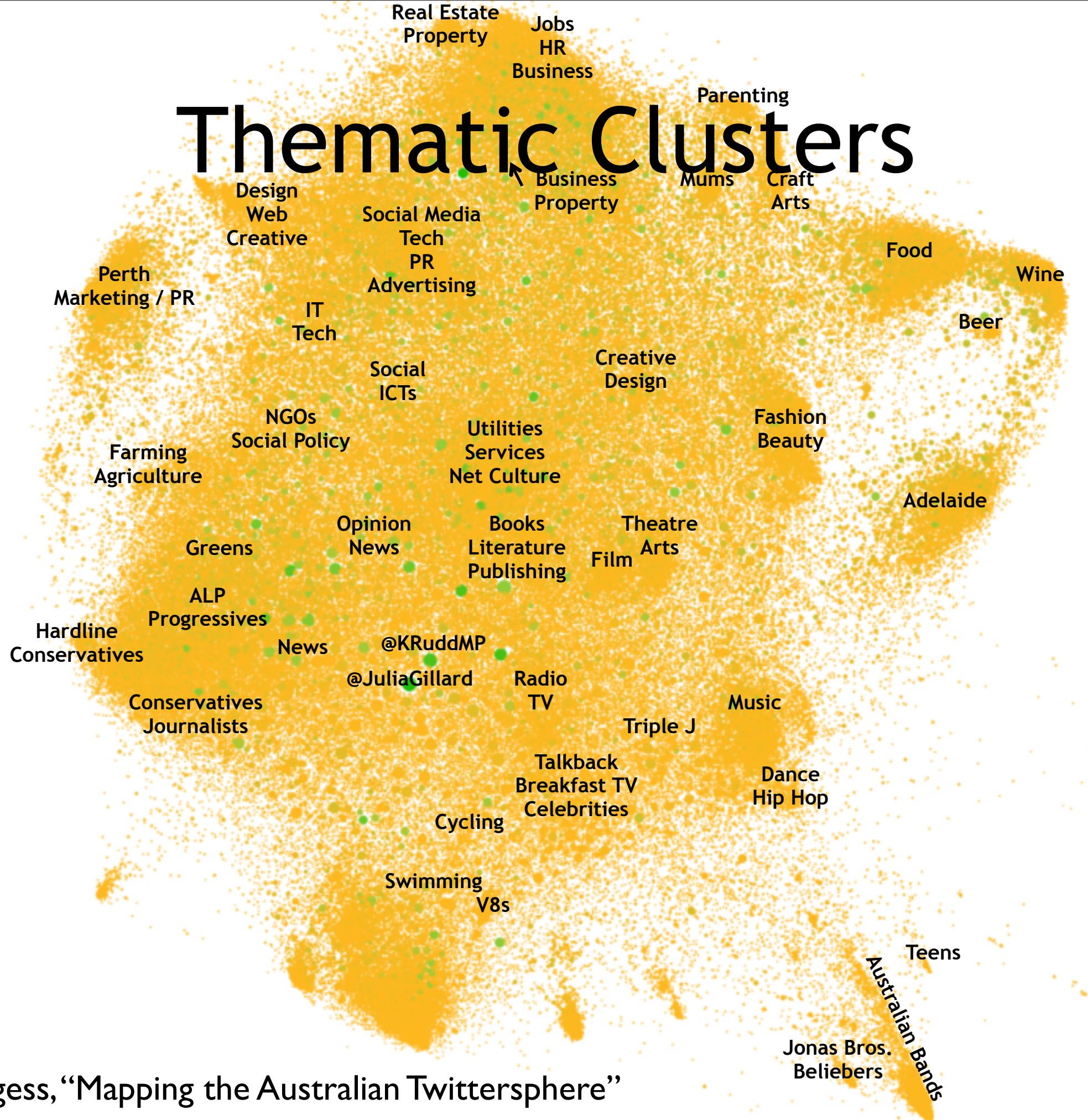
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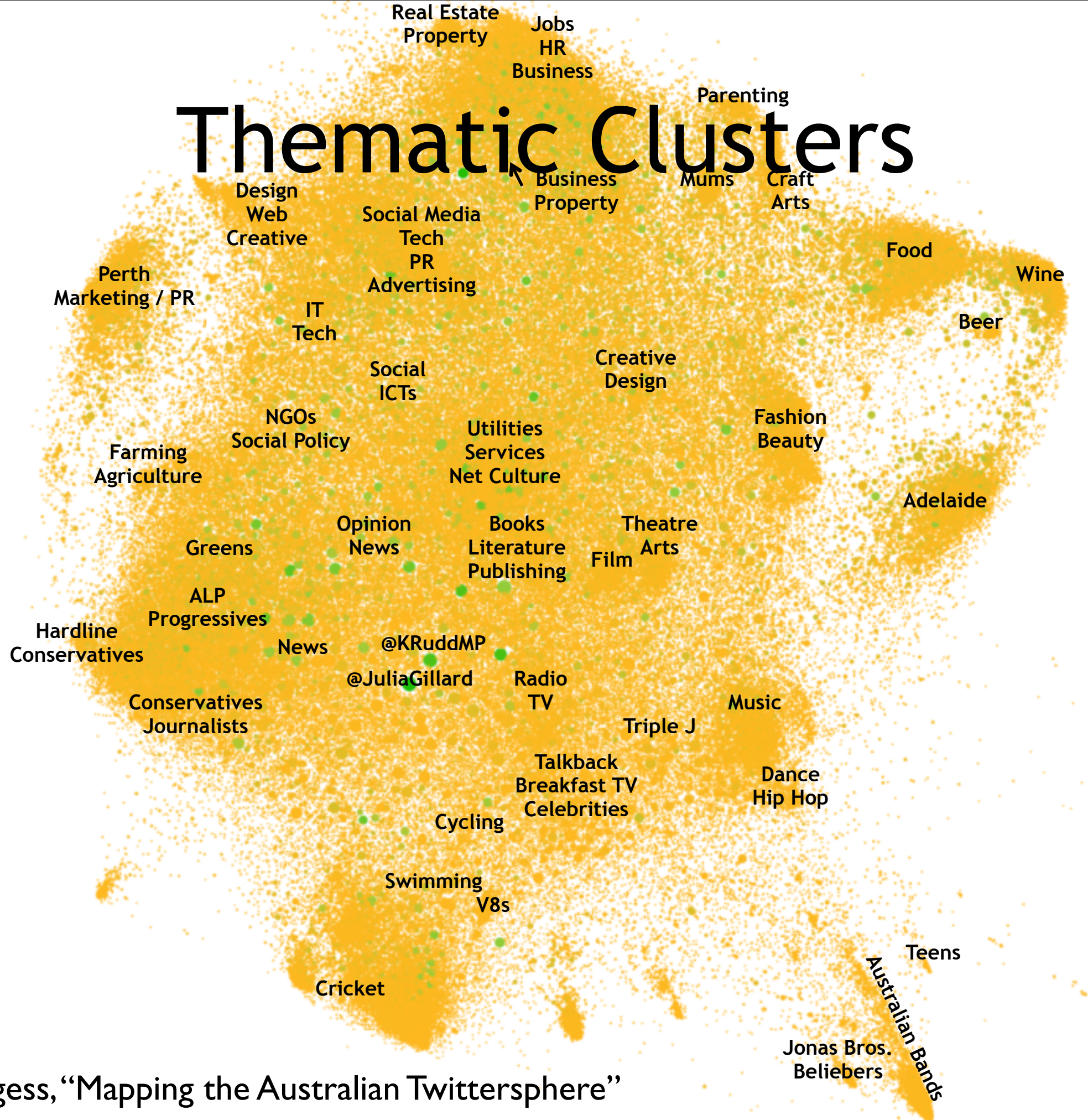
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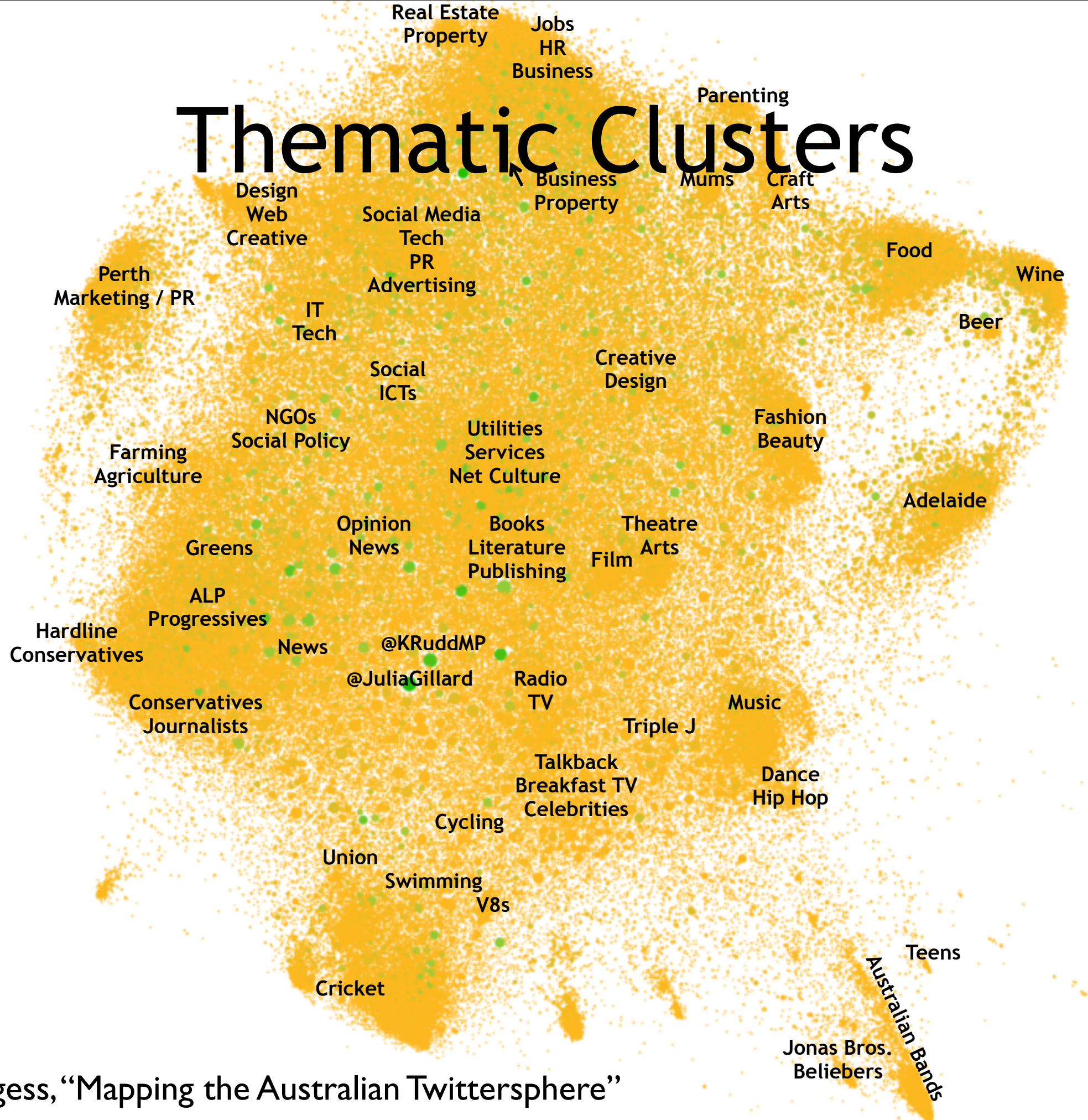
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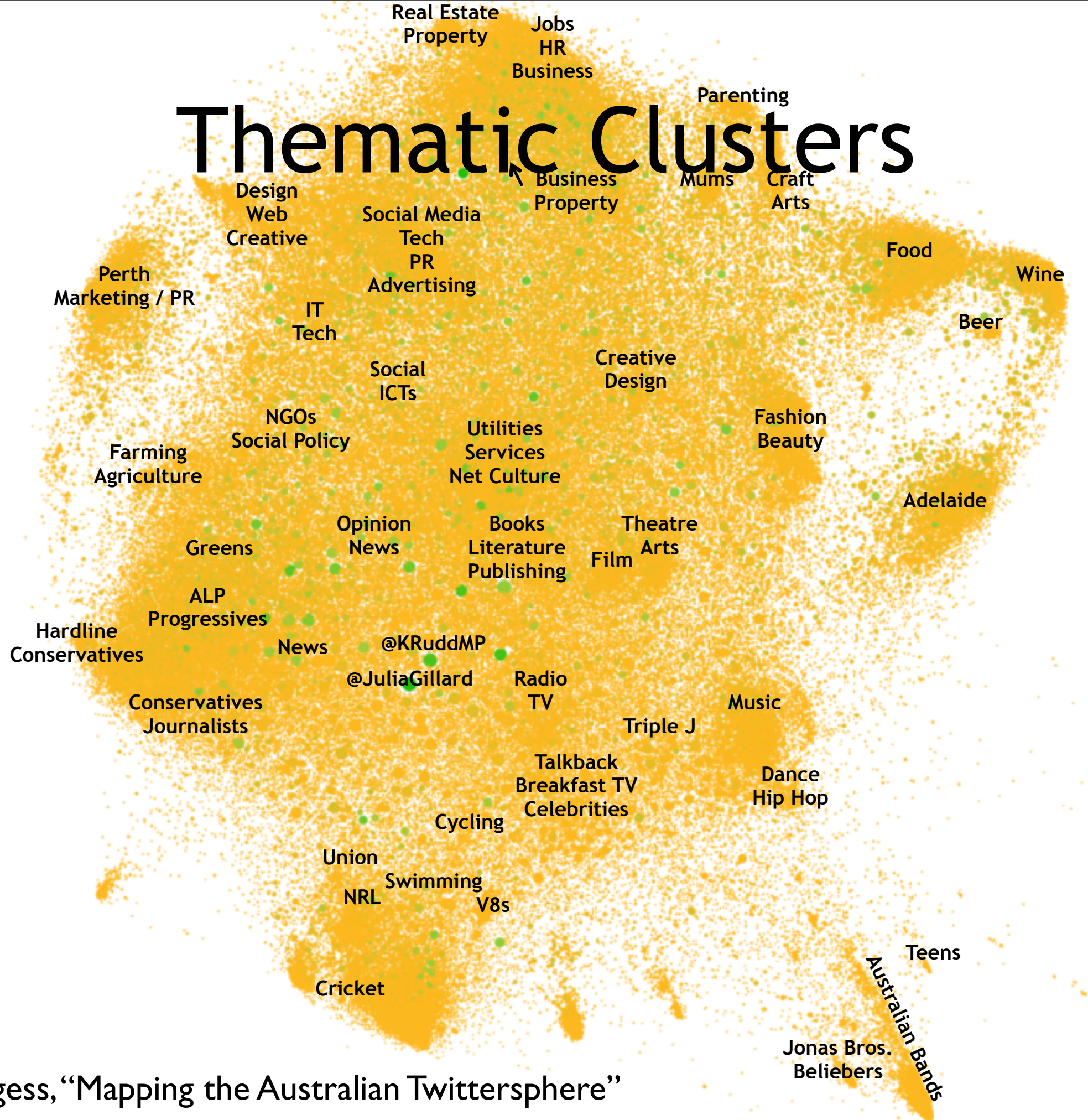
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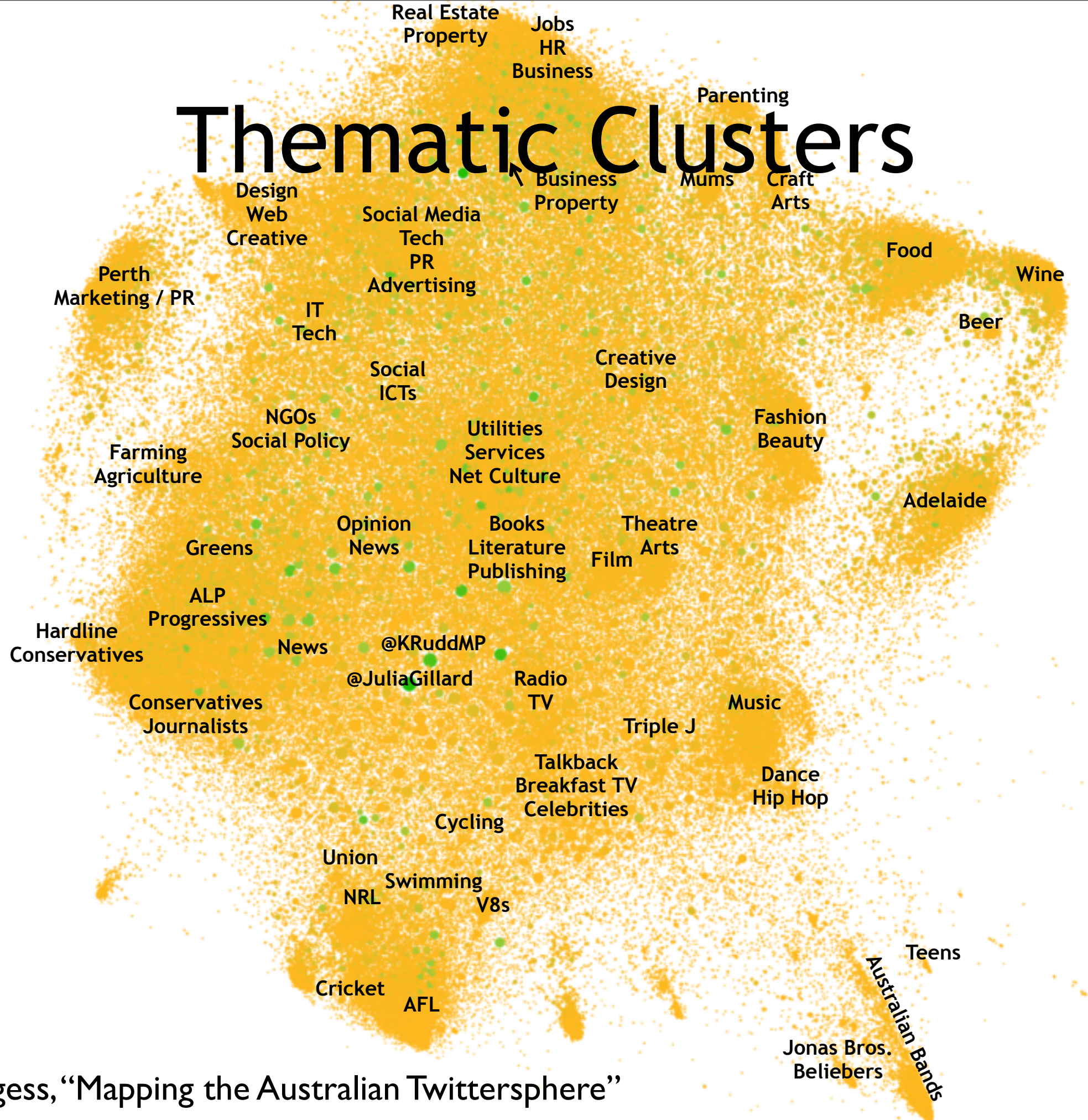
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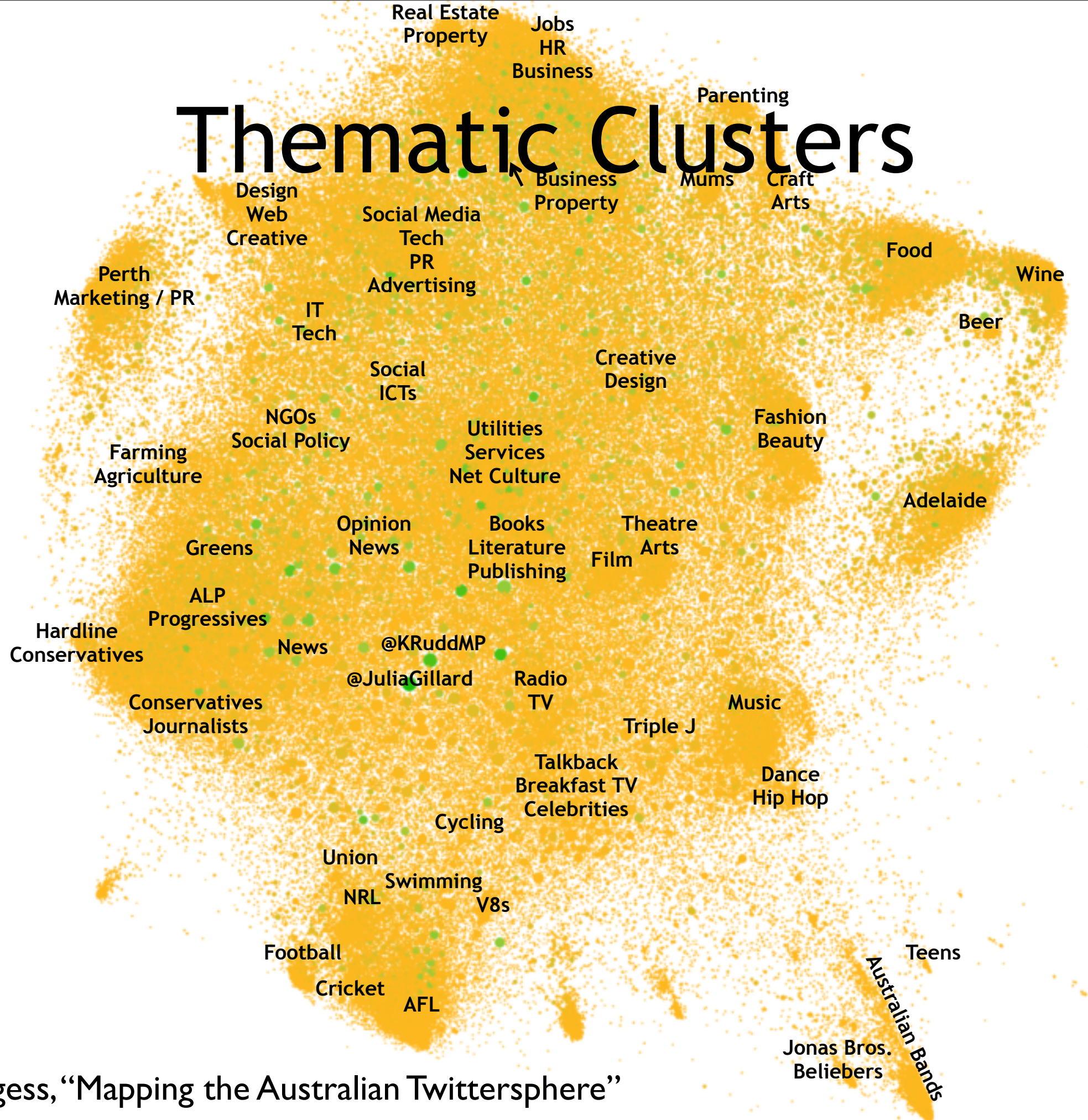
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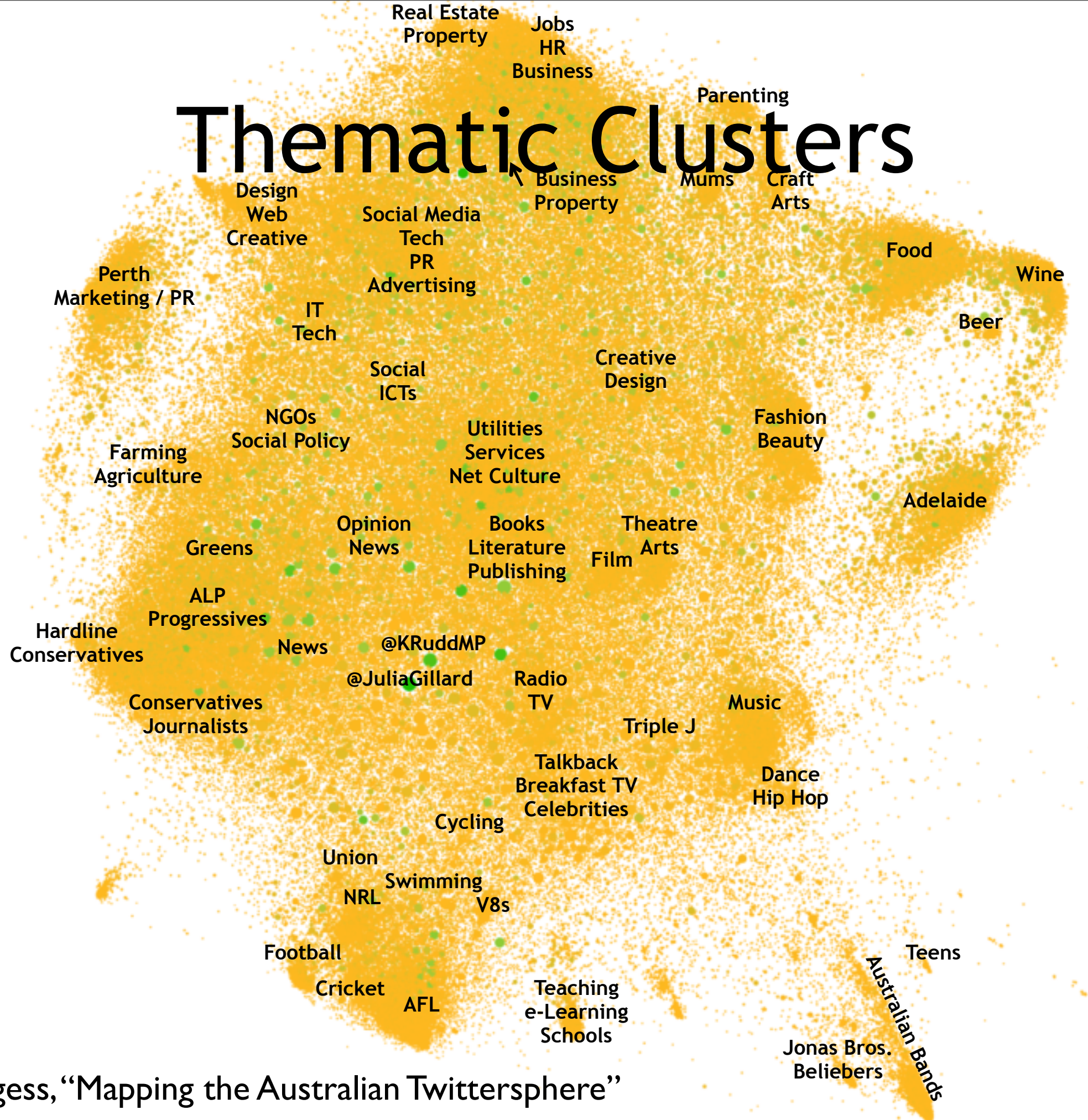
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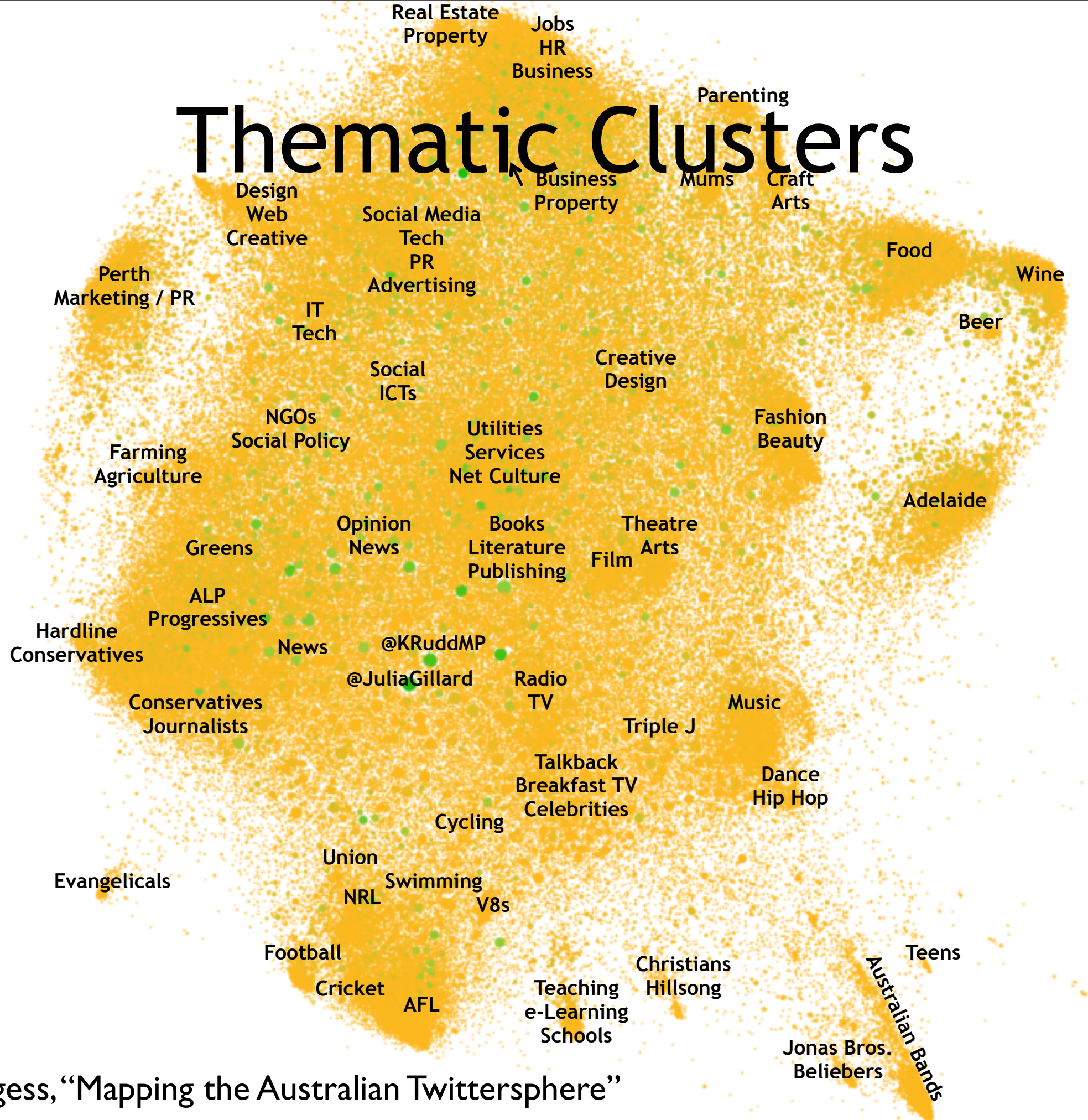


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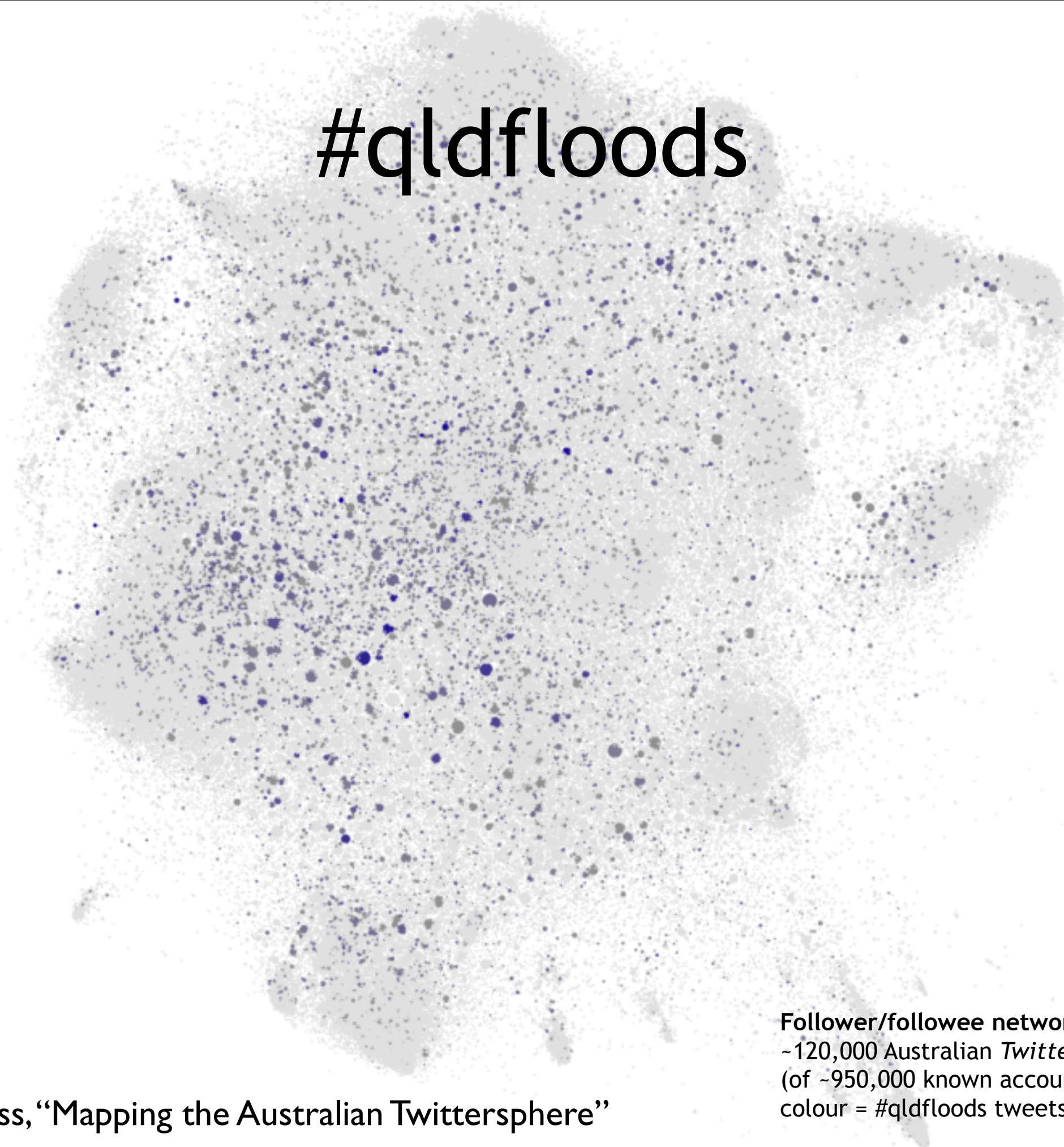
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Bruns & Burgess, "Mapping the Australian Twittersphere"

#qldfloods



Follower/followee network:
~120,000 Australian *Twitter* users
(of ~950,000 known accounts by early 2012)
colour = #qldfloods tweets, size = indegree

Bruns & Burgess, “Mapping the Australian Twittersphere”

#ausvotes



Follower/followee network:
~120,000 Australian *Twitter* users
(of ~950,000 known accounts by early 2012)
colour = #ausvotes tweets, size = indegree

Bruns & Burgess, “Mapping the Australian Twittersphere”

#auspol



Follower/followee network:
~120,000 Australian *Twitter* users
(of ~950,000 known accounts by early 2012)
colour = #auspol tweets, size = indegree

Bruns & Burgess, “Mapping the Australian Twittersphere”

#wikileaks



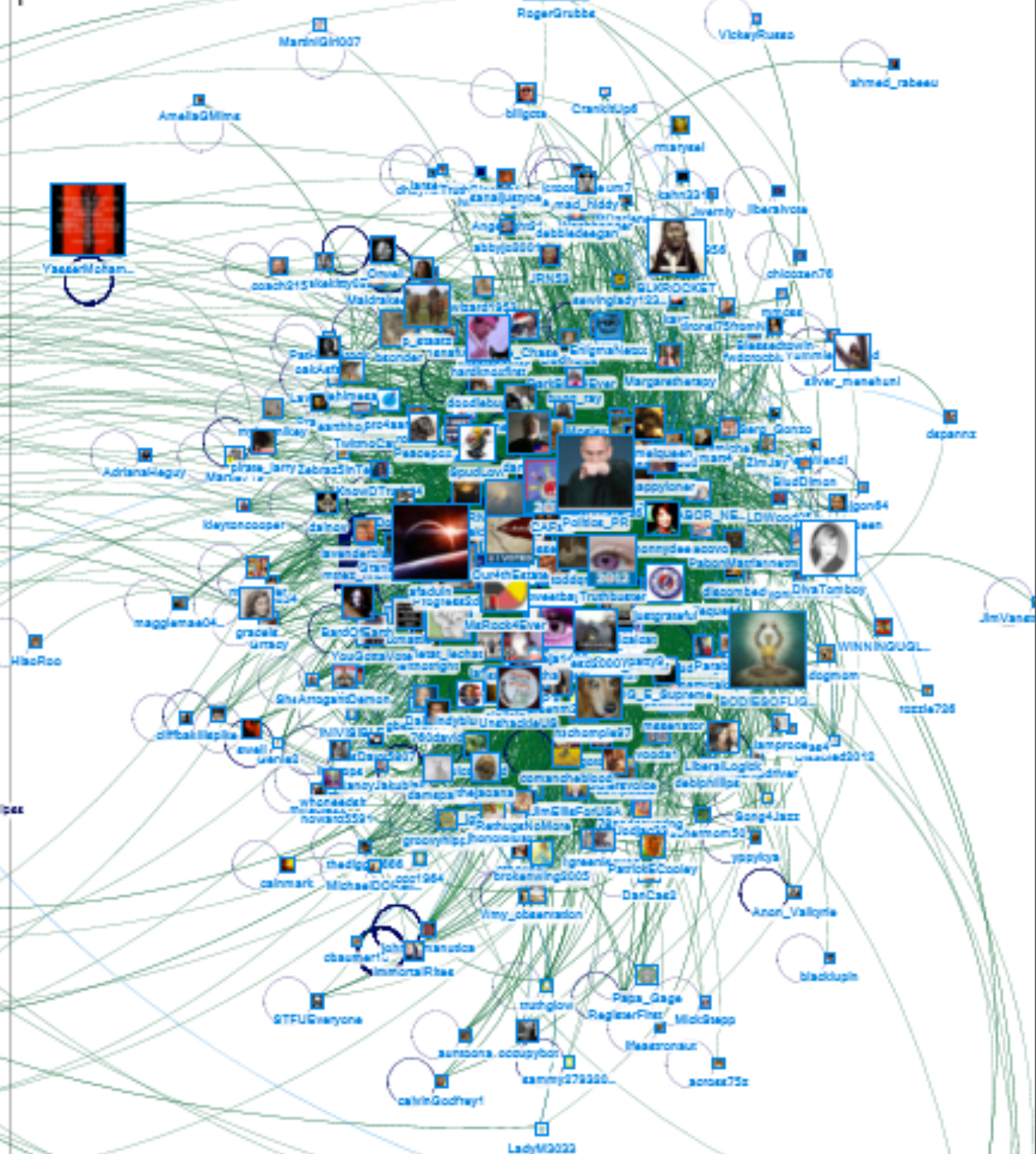
Follower/followee network:
~120,000 Australian *Twitter* users
(of ~950,000 known accounts by early 2012)
colour = #wikileaks tweets, size = indegree

Bruns & Burgess, “Mapping the Australian Twittersphere”

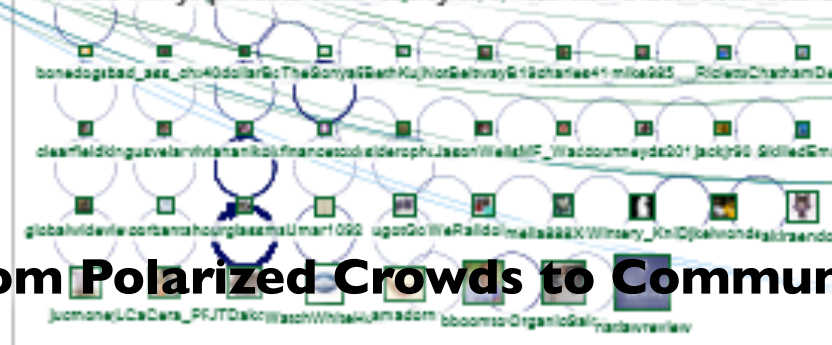
1: my2k tcot p2 obama tlct women college ccot lnyhbt gop



G2: my2k ows p2 fb tcot p2p connecttheleft gopmedicarekillers alec p2b



G3: my2k lolgop family vote mom dad tcot economy parents irony



G4: motorcitylive motorcity yinova



G6: my2k obam gunc drone



G5: my2k



G7: listen my2k



Pew Research, "Mapping Twitter Topic Networks: From Polarized Crowds to Community Clusters"



Benjamin Erb @_johnny_p_Dc

10 Aug

The Greens Party new election ad is very ordinary. I'd be hiring a new creative director if I was the Greens. #AusVotes #AusPol #Greens

Expand



William Goyer @midasfundsJj

10 Aug

The Greens Party new election ad is very ordinary. I'd be hiring a new creative director if I was the Greens. #AusVotes #AusPol #Greens

Expand



Oscar Pulman @delwilliams71

10 Aug

The Greens Party new election ad is very ordinary. I'd be hiring a new creative director if I was the Greens. #AusVotes #AusPol #Greens

Expand



Neema Naficy @nnaficyf

10 Aug

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Expand



Glenn G Lampard @dGlennGee

10 Aug

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Expand



KamloopsFilmSociety @kamloopsfilm_

10 Aug

The Greens Party new election ad is very ordinary. I'd be hiring a new creative director if I was the Greens. #AusVotes #AusPol #Greens

Expand



BT @Br_Tr

10 Aug

The Greens Party new election ad is very ordinary. I'd be hiring a new creative director if I was the Greens. #AusVotes #AusPol #Greens

Expand

<http://www.zdnet.com/prepare-for-the-attack-of-the-politiclones-7000019423/> 15 August 2013

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 Top 10 Tech This Week



Benjamin Erb
 @_johnny_p_Dc
 Registered patent attorney and representing clients ranging from startup ventures to Fortune 500 corporations in all aspects of intellectual property.
 Kaneohe, Hawaii

27
TWEETS

48
FOLLOWING

8
FOLLOWERS



Follow

Tweets



Benjamin Erb @_johnny_p_Dc
 I need to order more crop tops. Lol. Time for online shopping cause there's no time to go shopping!
 Expand

23 Aug



Benjamin Erb @_johnny_p_Dc
 522 A creative man is motivated by the desire to achieve, not by the desire to beat others.
 Expand

23 Aug



Benjamin Erb @_johnny_p_Dc
 #Work #DeadSea #Jordan #Amman
 Expand

15 Aug



Benjamin Erb @_johnny_p_Dc
 But basketball is always going to be my favorite sport
 Expand

10 Aug

2500

5000

10 000

25 000

50 000

100 000

Hot!

Pro!

Buy Twitter Followers

\$20

\$40

\$70

\$160

\$300

\$500

Twitter Followers	2500	5000	10 000	25 000	50 000	100 000
Delivery Time (days)	3	3	3	3	4	5
Money-Back Guarantee	✓	✓	✓	✓	✓	✓
	Buy Now	Buy Now	Buy Now	Buy Now	Buy Now	Buy Now

100% MONEY-BACK GUARANTEE

100% RETENTION GUARANTEE

250 000

500 000

1 Million

BULK Twitter Followers

\$750

\$1200

\$1500

Twitter Followers	250 000	500 000	1 Million
Delivery Time (days)	3-5	5-7	10-15
Money-Back Guarantee	✓	✓	✓
	Buy Now	Buy Now	Buy Now

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Offline - Click here

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