

Social Network Analysis 🌟😊

Analysis of Reddit user - subreddit relationship 🧠

What is Reddit?

What is Reddit?

“Front page of the Internet”

Why Reddit?

One of the Primitive
ways of sharing
information

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Content Driven with
minimal background
algorithms

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More “upvotes” = More
Visibility*

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Content Driven with
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More “upvotes” = More
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Unlike newer models of social networks*

Establishing the hypothesis

Establishing the hypothesis

Reddit is a massive network of visual content created on key central subreddits.

In simple words,
Redditors post more visual content than literary content.

Database

How to understand this database?

	A	B	C	D
1	Source	Target		
2	<u>suspiciouslucario</u>	AskReddit		
3	<u>AJTHEMUSICGEEK</u>	rarepuppers		
4	<u>AJTHEMUSICGEEK</u>	rarepuppers		
5	DJ6755	prey		
6	<u>peter-andersen</u>	theology		
7	<u>NRG_zapertime</u>	jaidenanimations		
8	<u>Minikea</u>	nffc		
9	<u>KnightWolf__</u>	Herdyn		
10	<u>Rioku_Tokumura</u>	ImpregPersonals		
11	khalidsa91	u_khalidsa91		
12	khalidsa91	u_khalidsa91		
13	khalidsa91	u_khalidsa91		
14	khalidsa91	u_khalidsa91		
15	khalidsa91	u_khalidsa91		
16	khalidsa91	u_khalidsa91		
17	khalidsa91	u_khalidsa91		
18	khalidsa91	u_khalidsa91		
19	khalidsa91	u_khalidsa91		
20	khalidsa91	u_khalidsa91		
21	khalidsa91	u_khalidsa91		
22	khalidsa91	u_khalidsa91		
23	khalidsa91	u_khalidsa91		
24	khalidsa91	u_khalidsa91		
25	khalidsa91	u_khalidsa91		
26	khalidsa91	u_khalidsa91		
27	khalidsa91	u_khalidsa91		
28	khalidsa91	u_khalidsa91		
29	khalidsa91	u_khalidsa91		
30	khalidsa91	u_khalidsa91		
31	khalidsa91	u_khalidsa91		
32	khalidsa91	u_khalidsa91		
33	khalidsa91	u_khalidsa91		
34	khalidsa91	u_khalidsa91		
35	khalidsa91	u_khalidsa91		

Nodes : “Source”

Reddit users who post on different subreddits.

Edges : “Target”

Subreddits in which the users post their content.

files.pushshift.io

Database

How to understand this database?

Nodes : “Target”

Reddit users who post on different subreddits.

Edges : “Source”

Subreddits in which the users post their content.

Relation type :

	A	B	C	D
158	<u>gxmedia</u>	<u>jewelrylove</u>		
159	<u>gxmedia</u>	<u>jewelrylove</u>		
160	<u>gxmedia</u>	<u>jewelrylove</u>		
161	<u>gxmedia</u>	<u>jewelrylove</u>		
162	<u>gxmedia</u>	<u>jewelrylove</u>		
163	<u>theplantcat</u>	<u>succulents</u>		
164	<u>hooVu</u>	<u>cursedcomments</u>		
165	<u>kazer99</u>	<u>keto</u>		
166	<u>AGreatDebater</u>	<u>fightporn</u>		
167	<u>Sweetmamaschili</u>	<u>ShitPostCrusaders</u>		
168	<u>dodao</u>	<u>cock</u>		
169	<u>rjb77ca</u>	<u>The_Donald</u>		
170	<u>rjb77ca</u>	<u>The_Donald</u>		
171	<u>rjb77ca</u>	<u>The_Donald</u>		
172	<u>rjb77ca</u>	<u>The_Donald</u>		
173	<u>rjb77ca</u>	<u>The_Donald</u>		
174	<u>rjb77ca</u>	<u>The_Donald</u>		
175	<u>rjb77ca</u>	<u>The_Donald</u>		
176	<u>rjb77ca</u>	<u>The_Donald</u>		
177	<u>rjb77ca</u>	<u>The_Donald</u>		
178	<u>ActiveSubBottom</u>	<u>r4r</u>		
179	<u>master_LD</u>	<u>MassiveCock</u>		
180	<u>master_LD</u>	<u>MassiveCock</u>		
181	<u>master_LD</u>	<u>MassiveCock</u>		
182	<u>narishkazvee</u>	<u>GetMoreViewsYT</u>		
183	<u>Oofcide</u>	<u>cursedimages</u>		
184	<u>Oofcide</u>	<u>cursedimages</u>		
185	<u>spectra3570</u>	<u>ptcgo</u>		
186	<u>pawlame</u>	<u>freebies</u>		
187	<u>ShadowSJG</u>	<u>KamenRider</u>		
188	<u>axlslash625</u>	<u>sthnfgameslivevonss</u>		
189	<u>Noahbryant117</u>	<u>forhonor</u>		
190	<u>Noahbryant117</u>	<u>forhonor</u>		
191	<u>VictoriaMaree1252</u>	<u>melbourne</u>		
192	<u>RecyclableMangosteen</u>	<u>relationships advice</u>		

Database

	A	B	C	D
333	sub1guy	wickr_pervs		
334	sub1guy	wickr_pervs		
335	sub1guy	wickr_pervs		
336	sub1guy	wickr_pervs		
337	sub1guy	wickr_pervs		
338	sub1guy	wickr_pervs		
339	sub1guy	wickr_pervs		
340	sub1guy	wickr_pervs		
341	sub1guy	wickr_pervs		
342	sub1guy	wickr_pervs		
343	sub1guy	wickr_pervs		
344	sub1guy	wickr_pervs		
345	sub1guy	wickr_pervs		
346	sub1guy	wickr_pervs		
347	caelosbornlp	premed		
348	TullyPeppers	RATS		
349	NarynaF	sexystories		
350	ralyla	thebachelor		
351	pogofwar	lawncare		
352	amariswoo	taiwan		
353	Yo_Yoshi	GuitarHero		
354	Sky_PL	u_duncan_wooster		
355	newaccountoldwashack	memes		
356	newaccountoldwashack	memes		
357	kukukele	hockey		
358	StationaryApe	AskReddit		
359	StationaryApe	AskReddit		
360	TheCrowdedOne	RatchetAndClank		
361	Thour1237	AAAAAAAAAAAAAAAAAAAA		
362	themotionoftheocean1	feet		
363	themotionoftheocean1	feet		
364	ML_Godzilla	SuggestALaptop		
365	waluigi_board	pcgaming		
366	hillgerb	succulents		
367	Kavlee is drowning	crankthatfrank		

How to understand this database?

Nodes : “Target”

Reddit users who post on different subreddits.

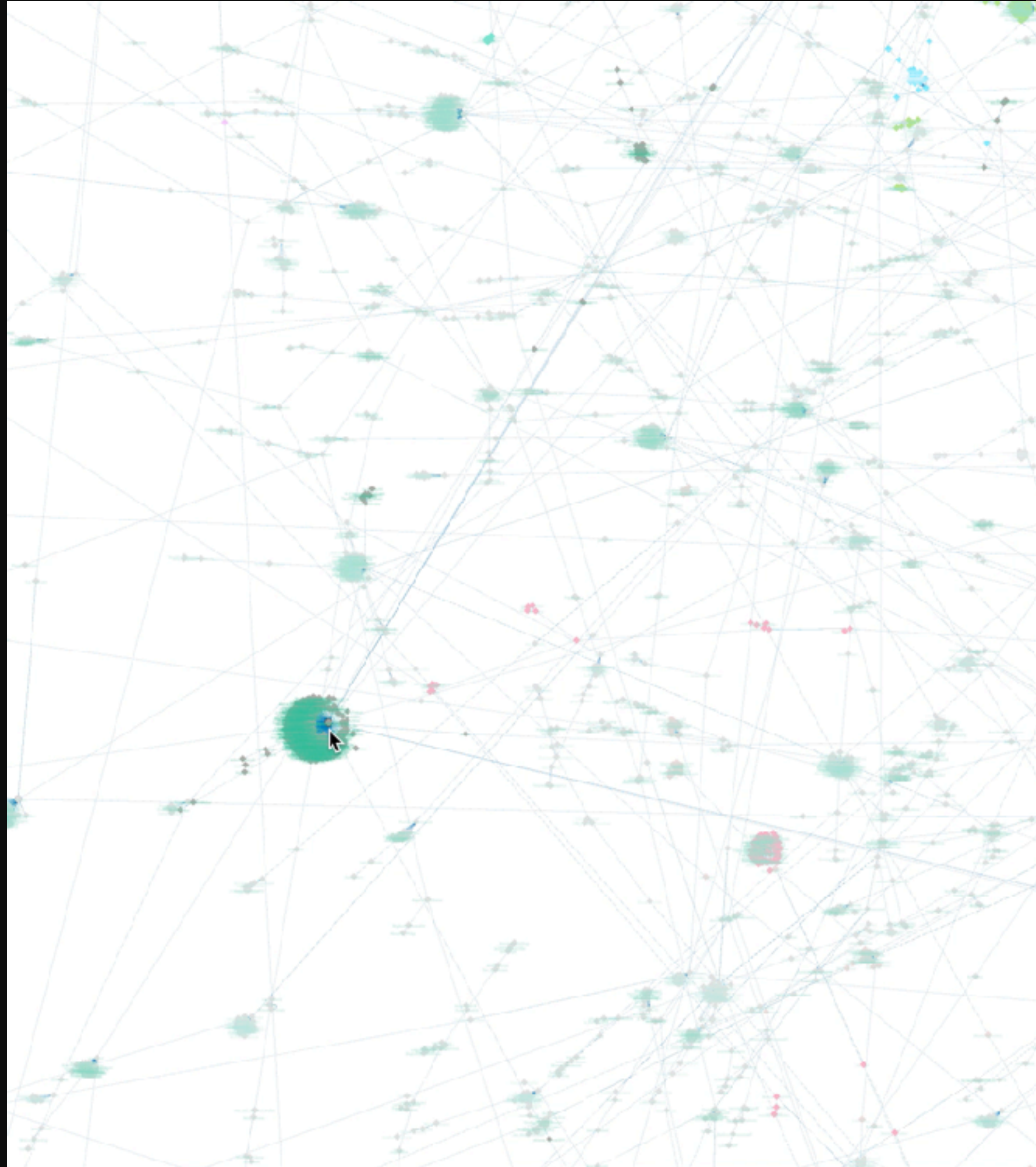
Edges : “Source”

Subreddits in which the users post their content.

Relation type :

Directed

Gephi Stats



Observations

Degree range :

2

11256

Network Diameter

Directed : 2

Undirected : 59

Modularity

0.969

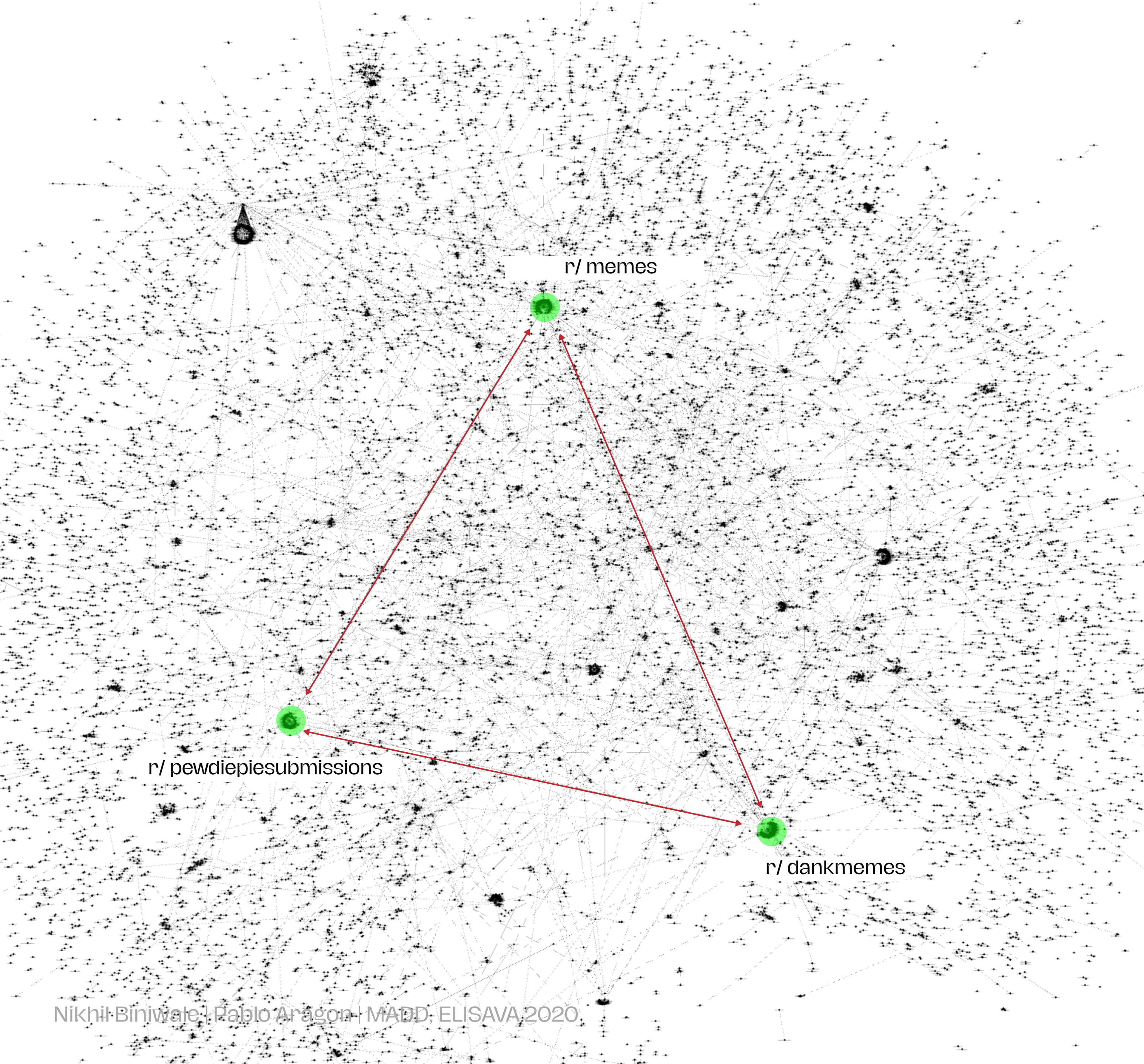
Avg. Path
Length

14.075

Analysing Degree Range

Most users post commonly across 3 subreddits.

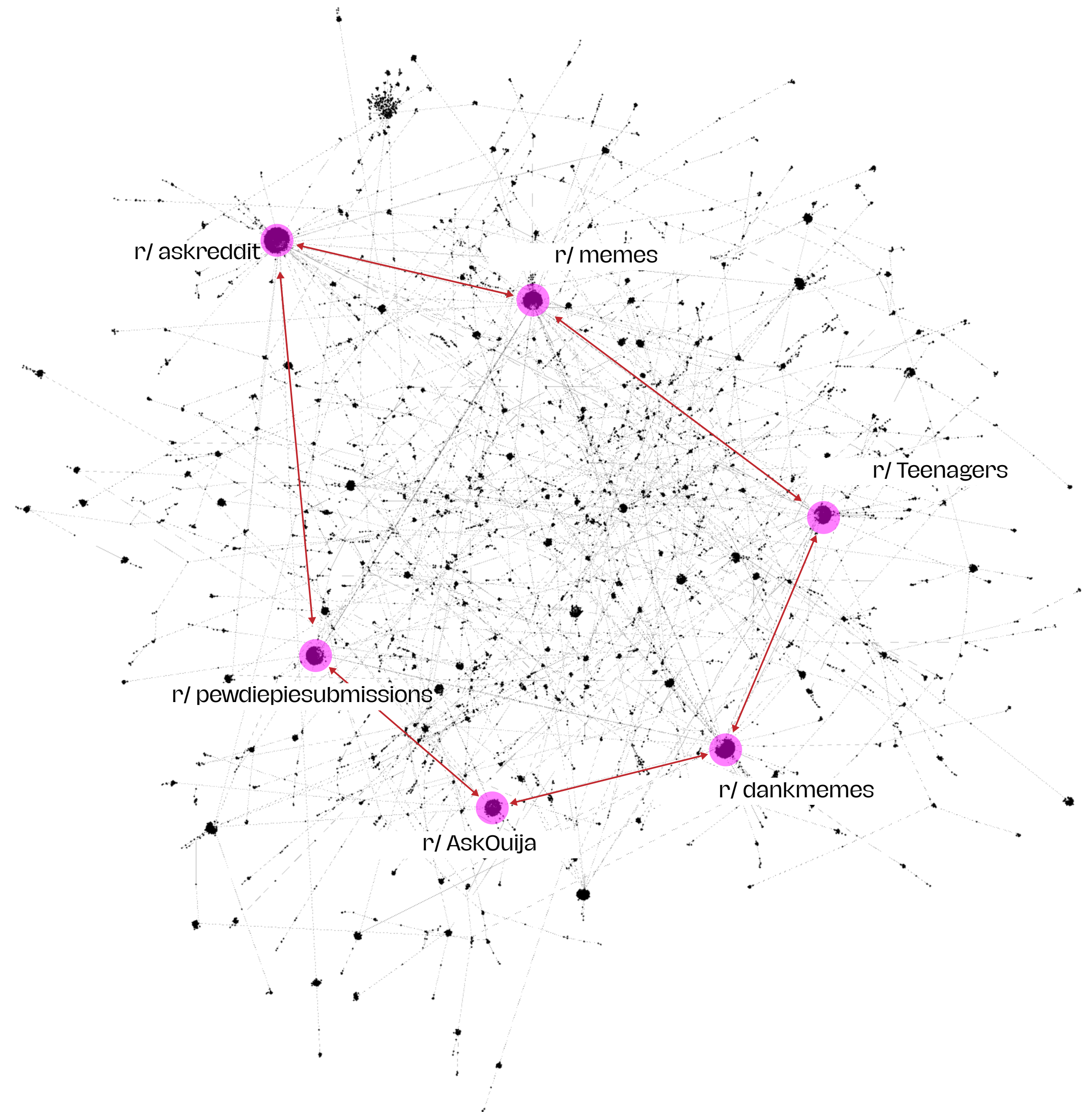
1. Pewdiepiesubmissions
2. Dankmemes
3. Memes.



Analysing Giant Component

Most number of
submission happen
across 6 subreddits.

r/ Askreddit leads the
most number of
submissions.



Analysing Giant Component

Other Minor clusters of Subreddits

1. FortniteBR
2. Showerthoughts
3. Aww
4. Youngpeopleyoutube
5. Automoderator
6. Minecraft

NSFW clusters of Subreddits

1. Dirtykikpals
2. Dirtypenpals
3. Gonewild
4. Dirtyr4r

Analysing Giant Component

Other Minor clusters of Subreddits

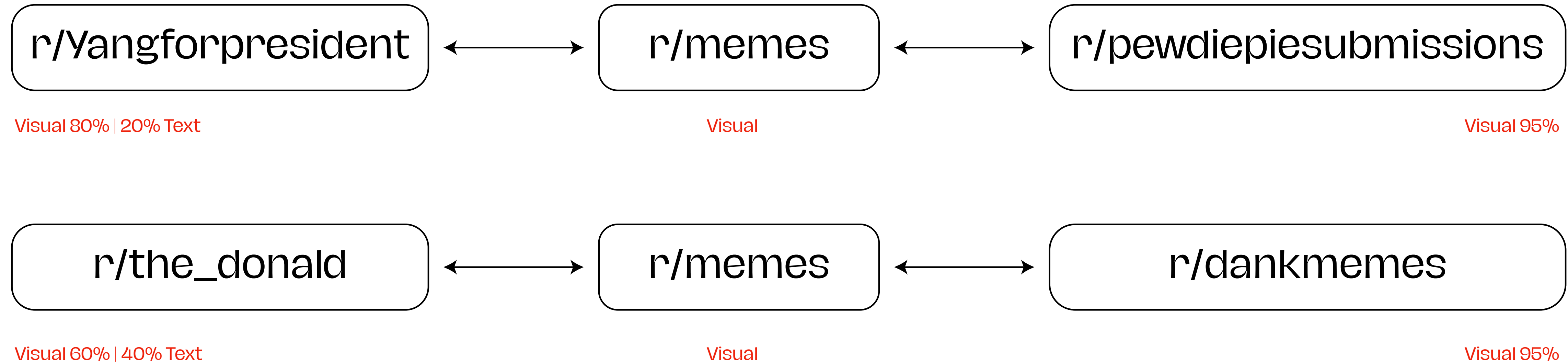
1. **FortniteBR** Visual
2. **Showerthoughts** Text
3. **AWW** Visual
4. **Youngpeopleyoutube** Visual
5. **Automoderator** Text
6. **Minecraft** Visual

NSFW clusters of Subreddits

1. **Dirtykikpals** Text
2. **Dirtypenpals** Text
3. **Gonewild** Visual
4. **Dirtyr4r** Text

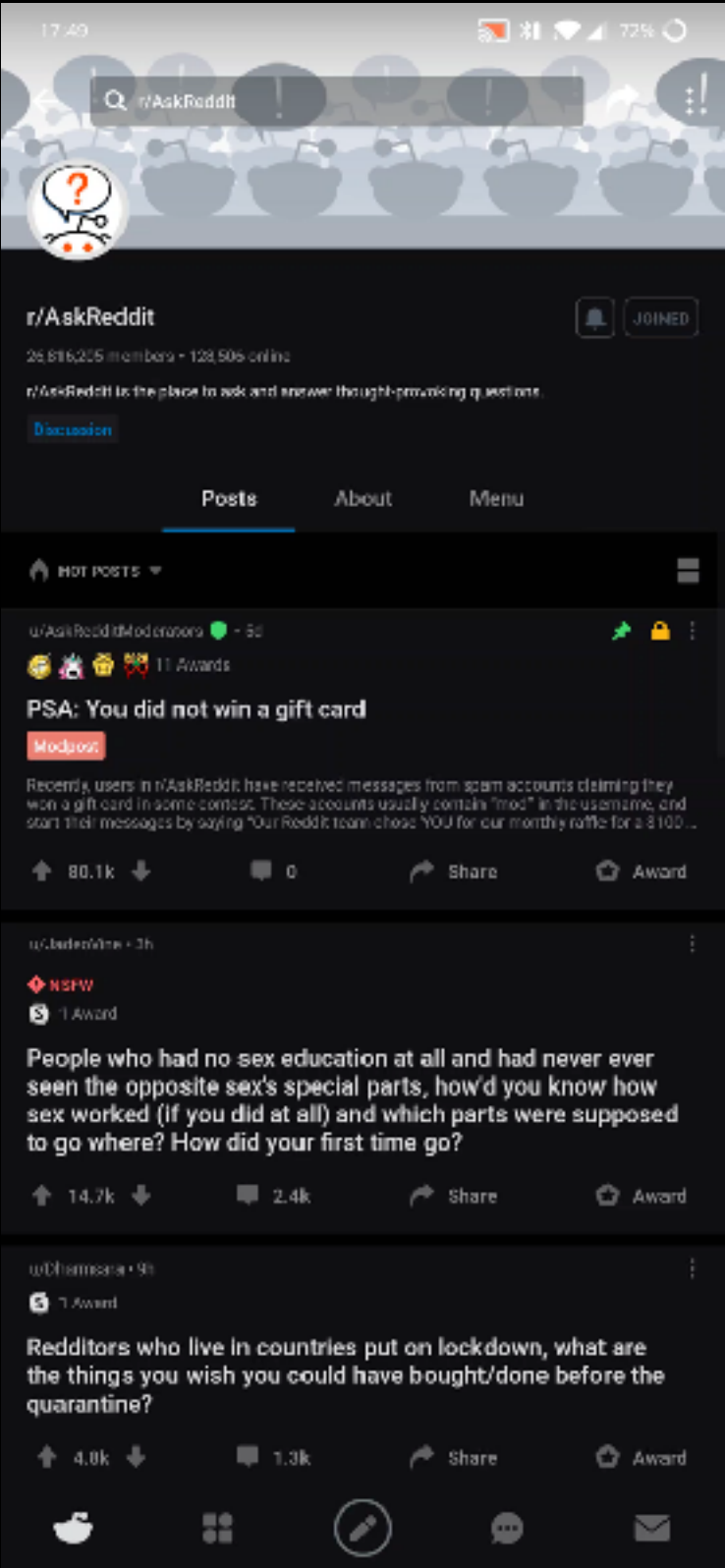
Analysing Giant Component

Interesting Links



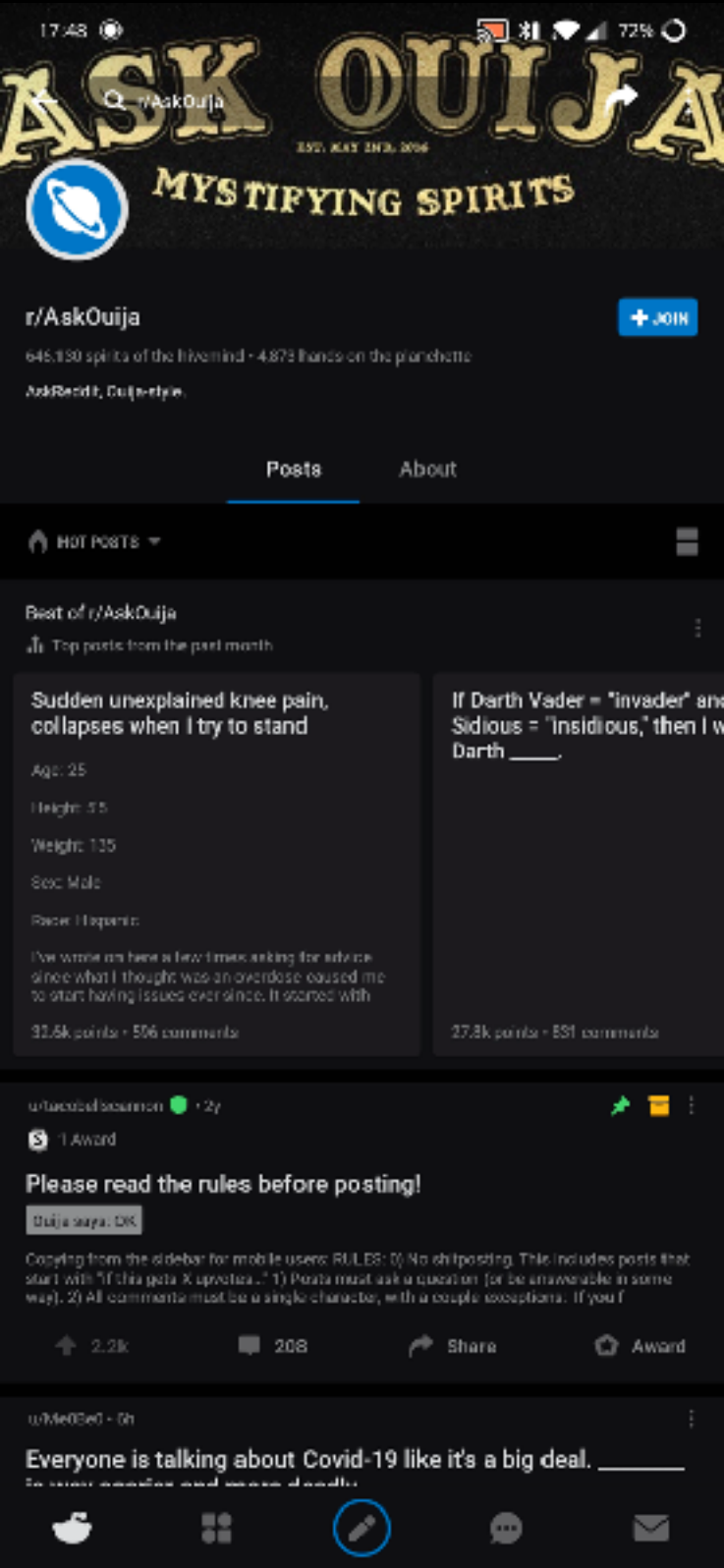
Results

Ask Reddit



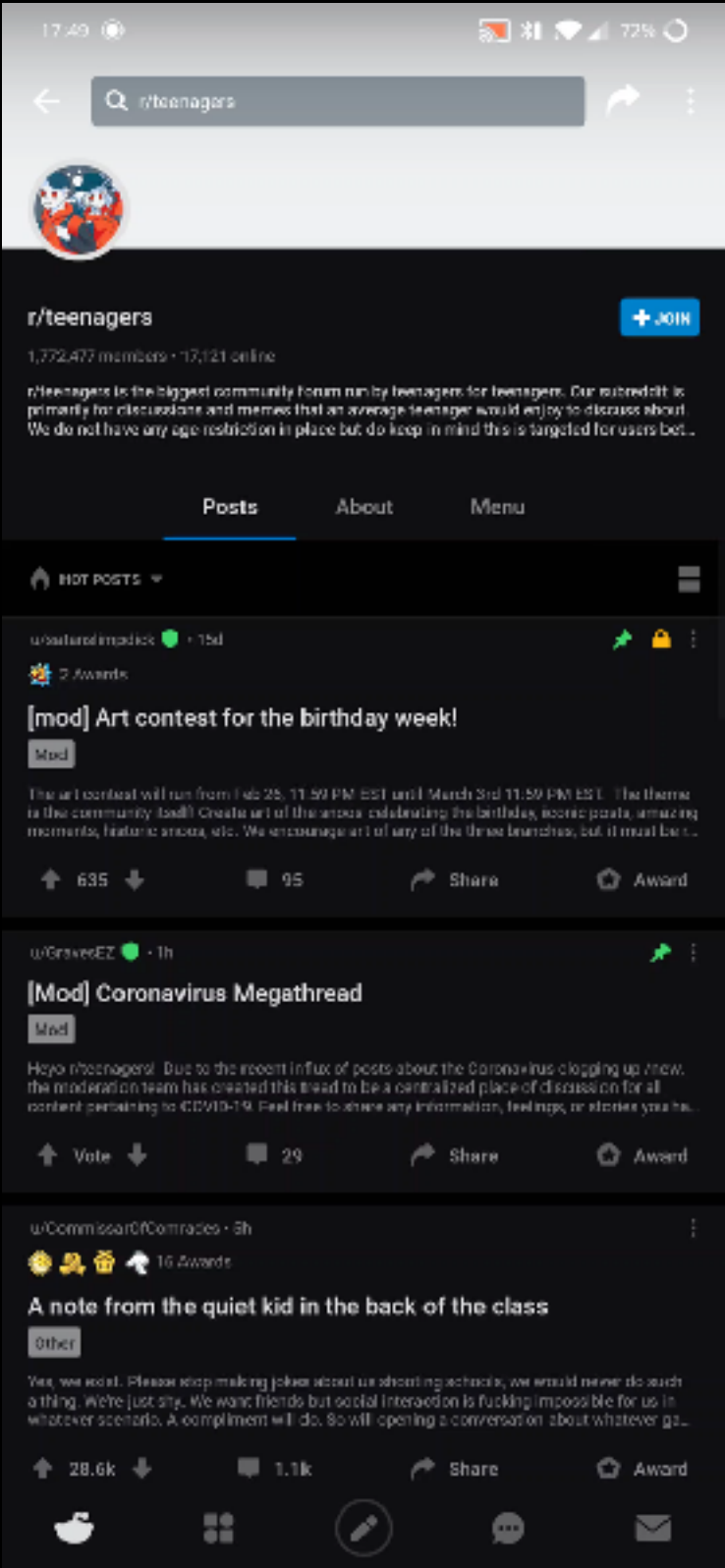
100% Text

Ask Ouija



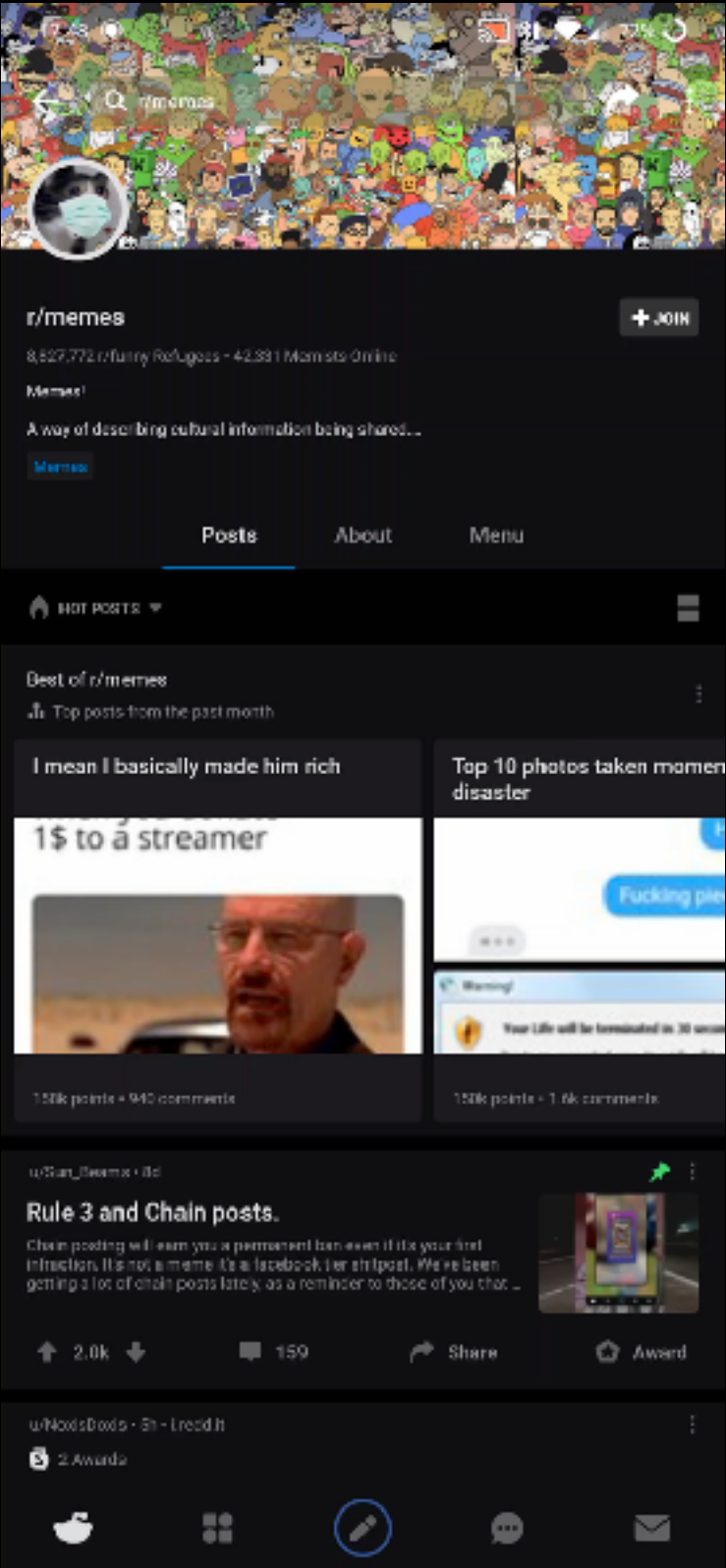
100% Text

Teenagers



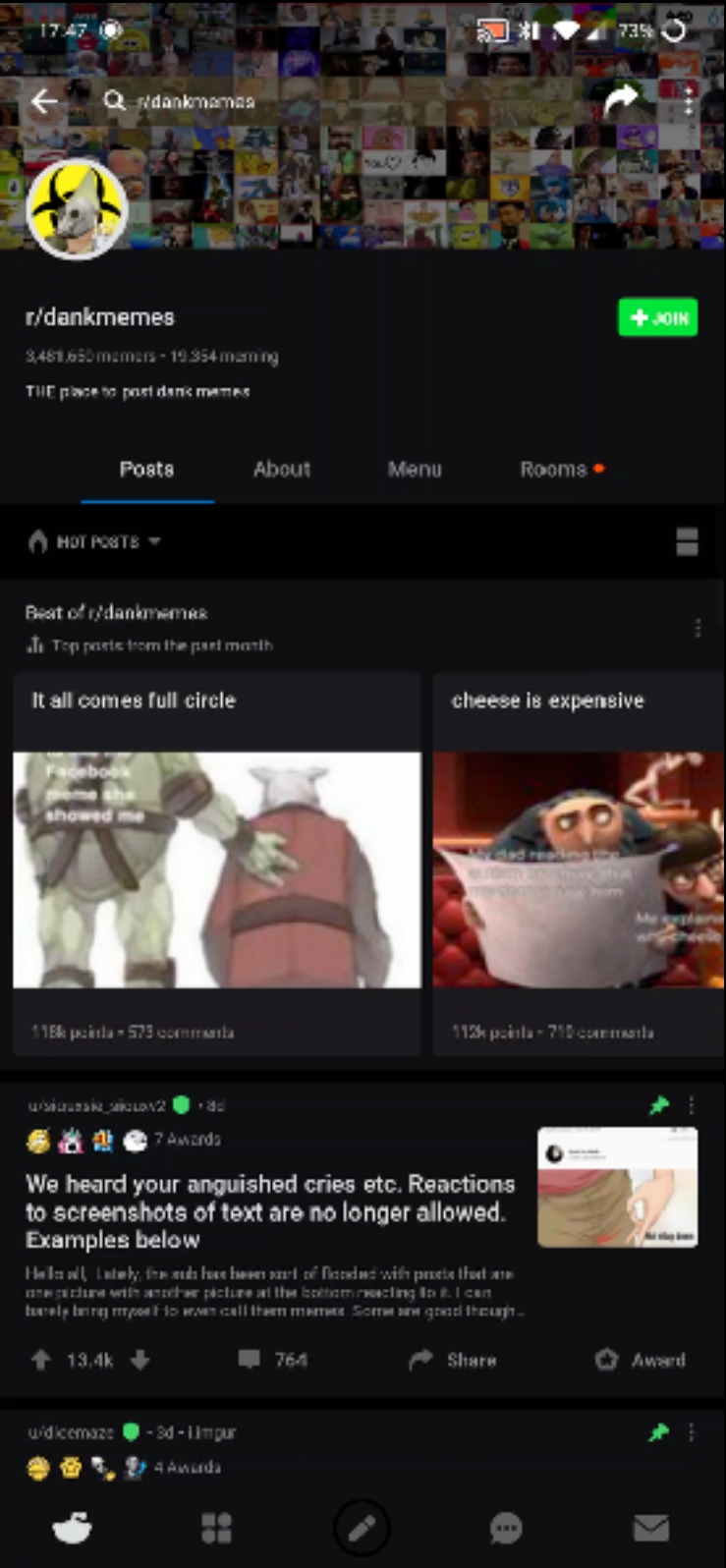
80% Visual

Memes



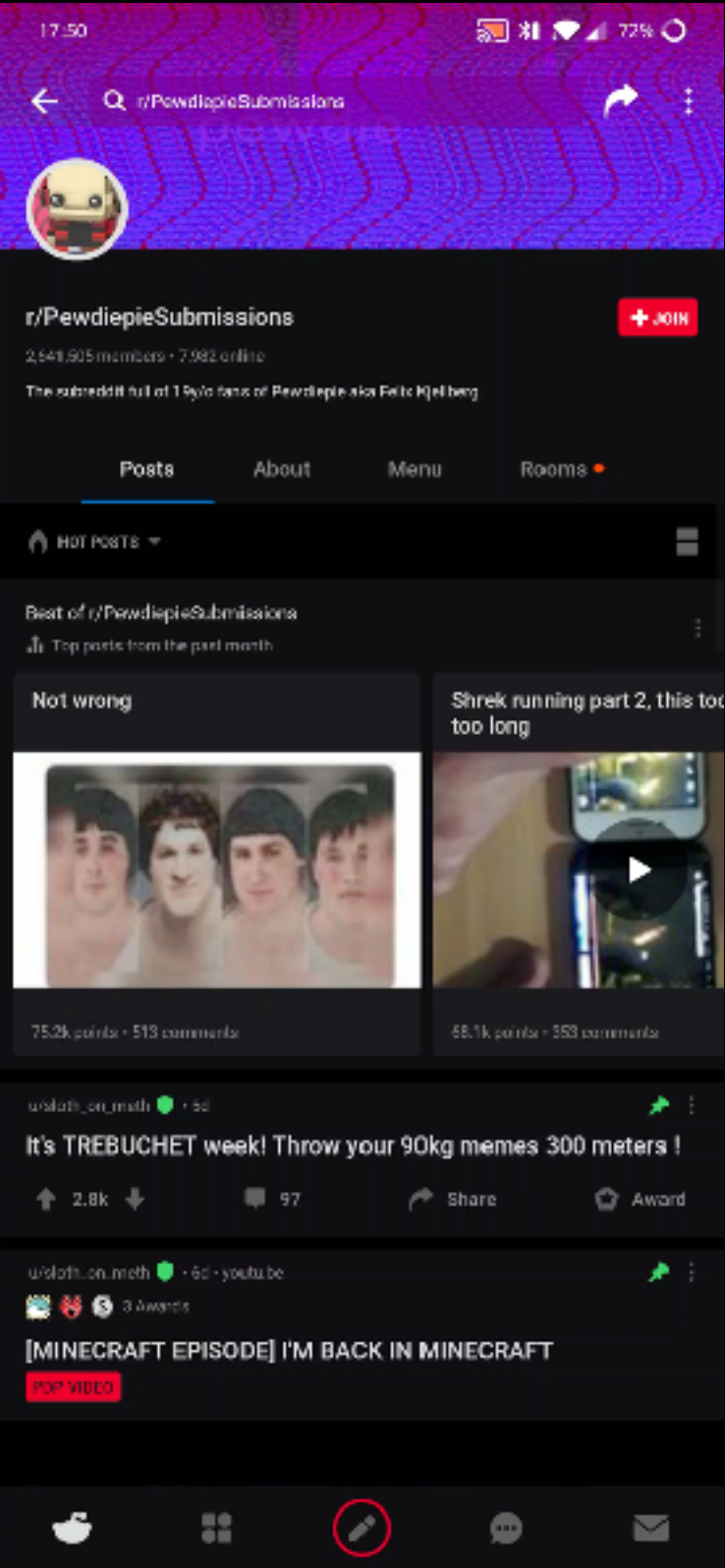
95% Visual

Dankmemes



95% Visual

PewdiepieSub



95% Visual

Limitations & Biases

Extremely large
database.

Need for cleaner
methods.

Limited amount of
details

Proposals

Reddit as a marketplace

Optimise Reddit's
posting policy

Stop Karma-whoring

Thank you