

DEEPTIKTOK

THREE METHODS

ELENA PILIPETS / UNIVERSITY OF SIEGEN

FOR TRACING

VIDEO MEMES

#deeptiktok ...



1 year ago!! #deeptiktok ...

peppaaaa #deeptiktok ...



#deeptok #deeptiktok ...

PLEASE #fyp #deeptiktok...



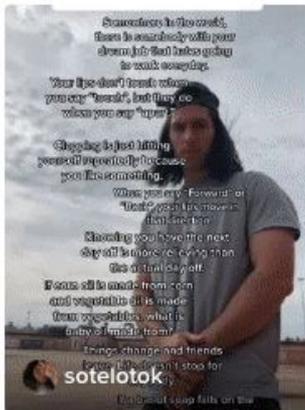
i 😊 climbed 😊 out 😊 of 😊 ...



shrëk 🐻 ✨ ...



👉 mi 🐼 pans 🧑 jchuu 🤪jh...



#deeptiktok ...

Deeptiktok

DeepTok, also known as Deep TikTok, is a **subgenre of Alt/Elite TikTok**, Definition: Alt TikTok, also known as Elite TikTok is a TikTok subculture featuring eccentric, alternative content. Alt TikTok, also known as Elite TikTok is a TikTok subculture featuring eccentric, alternative content. 5 Aug 2020

<https://stayhipp.com/glossary/what-is-deeptok-deep-...>

What Is DeepTok/ Deep TikTok? - StayHipp



- 1. FOCUS ON 'ALTERNATIVE' TIKTOK***
- 2. DISCUSS THREE METHODS FOR WORKING WITH COLLECTIONS OF SOCIAL VIDEO CONTENT***
- 3. COMBINE TIKTOK METADATA WITH AI-DRIVEN VIDEO & AUDIO ANALYSIS***

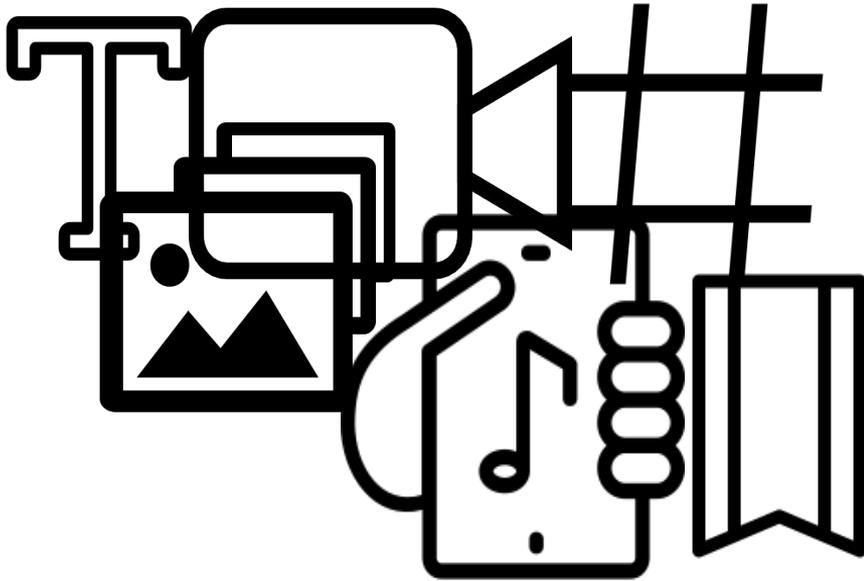
UNDERSTANDING TIKTOK VIDEOS

1. TikTok videos are short. 2. TikTok is all about vertical video. 3. Many videos tend to be music focused and use original sounds. 4. TikTok has an extensive library of sound templates. 5. Many videos also apply searchable sound and video effects in combination with personalized text/emoji stickers.

-> TikToks are variously networked/searchable/templatable

Engaging logic of TikTok video memes

TikToks are variously networked/searchable/templatable. The main networker is often the sound, not the hashtag.



Platform Metadata

interactive features
(likes, views, shares, comments,
challenges, duets etc.)

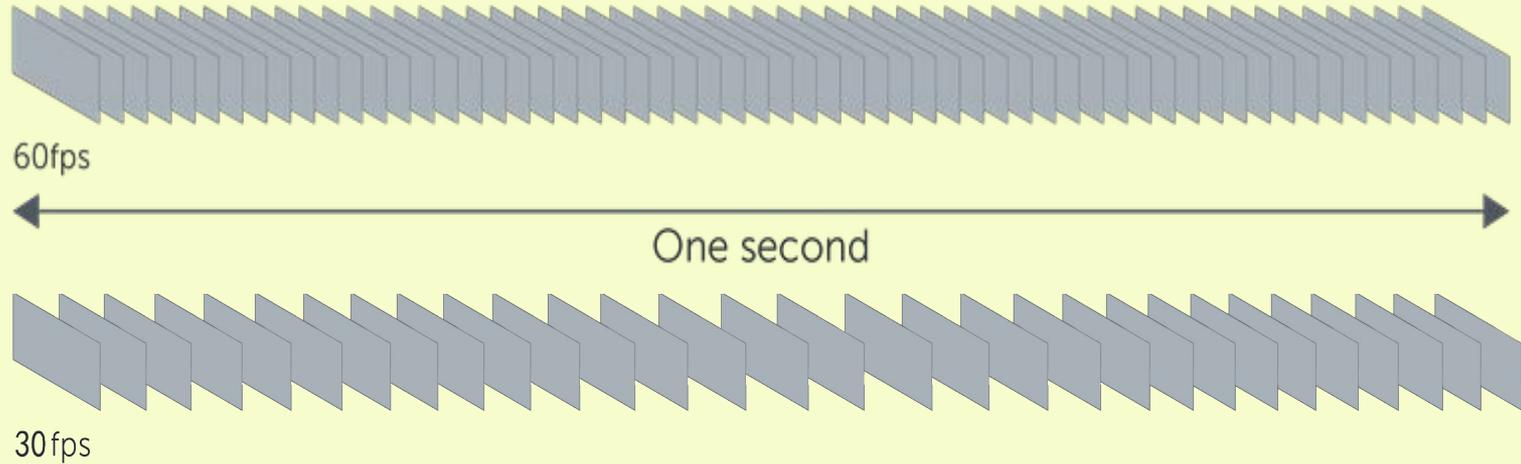
+

timestamps, accounts, hashtags, sounds,
captions, stickers, effects, etc.

+

moving images/audio content

Tiktok video length can range from 3 seconds to 3 minutes.



The usual frame rate is 30 frames per second -> 1 second of video generates 30 images.

TIKTOK: THE SOCIAL MOVING IMAGE

1. Finding the right sampling technique for frame extraction and detection of visual elements

On sampling and visualization techniques see e.g., [Manovich 2013](#), on video analysis with AI see e.g., [Arnold et al. 2019](#))



Try with your data

You can analyse a video by following the instructions [here](#). Also see the script [here](#) if you want to run all features at once.

This app **doesn't** send or store any of your video or annotation data. It just visualises local data files.

Your video

 No file chosen

Your .json

 No file chosen
Label Detection Shot Detection Object Tracking Person Detection Face Detection Logo Recognition Speech Transcription Text Detection Explicit Content Detection

0.00s — (6.80s) → 6.80s

6.84s — (3.17s) → 10.01s

10.05s — (4.38s) → 14.43s

14.47s — (1.67s) → 16.14s

16.18s — (3.13s) → 19.31s

19.35s — (1.71s) → 21.06s

21.10s — (1.71s) → 22.81s

22.86s — (1.54s) → 24.40s

24.44s — (2.17s) → 26.61s

26.65s — (3.25s) → 29.90s

29.95s — (1.92s) → 31.87s

31.91s — (3.55s) → 35.45s

35.49s — (3.42s) → 38.91s

38.96s — (2.92s) → 41.88s

41.92s — (3.09s) → 45.00s

45.05s — (4.30s) → 49.34s

49.38s — (11.09s) → 60.48s

60.52s — (10.34s) → 70.86s

70.90s — (1.96s) → 72.86s

72.91s — (1.29s) → 74.20s

74.24s — (3.09s) → 77.33s

77.37s — (2.92s) → 80.29s

80.33s — (7.47s) → 87.80s

87.84s — (8.93s) → 96.76s

96.81s — (6.17s) → 102.98s

103.02s — (9.55s) → 112.57s

112.61s — (4.92s) → 117.53s

117.58s — (3.04s) → 120.62s

120.66s — (2.54s) → 123.21s

123.25s — (2.59s) → 125.83s

125.88s — (4.21s) → 130.09s

130.13s — (2.42s) → 132.55s

132.59s — (2.46s) → 135.05s

135.09s — (1.17s) → 136.26s

136.30s — (0.71s) → 137.01s

137.05s — (1.58s) → 138.64s

138.68s — (2.13s) → 140.81s

140.85s — (1.79s) → 142.64s

142.68s — (2.46s) → 145.15s

145.19s — (4.50s) → 149.69s

149.73s — (1.04s) → 150.78s

150.82s — (2.00s) → 152.82s

152.86s — (1.33s) → 154.20s

154.24s — (2.21s) → 156.45s

156.49s — (1.96s) → 158.45s

158.49s — (0.79s) → 159.28s

159.33s — (0.96s) → 160.29s

160.33s — (2.67s) → 163.00s

Google Video Intelligence API, for example, extracts and annotates the middle frame of each shot based on its visual content. The method is very powerful when it comes to complex story arcs and multiple shot transitions. *Limitation: Web detection is not included.*



Shot detection

0.00s-15.015s

Label detection

hair; long hair; dreadlocks; black hair

Google Video AI - Video Content Analysis

TikTok video
thumbnails



Many TikToks are filmed in one shot.

15 seconds of this video generate 450 frames. Frame rate = 30 fps.



Google Video AI label detection provides the labels of the individual objects present in a given video. However it does not contain additional web information, which is crucial for understanding the social aspects of video distribution and TikTok virality.



“**Google Vision API** labels detect and extract information about entities in an image, across a broad group of categories. (...) Web detection detects web references to an image based on content from pages with similar images.” (Google Cloud Vision API + Memespector GUI (Chao 2021) + see e.g., Hagen 2017; Omena et al. 2021; Pilipets 2021; Rogers et al. 2021; Pearce et al. 2022; Burkhardt & Rogers 2022; Tucci 2022; on GV labels see e.g., Geboers & Van de Wiele 2020).



15 sec/15 frames

Best Guess Labels dreadlocks; tiktok bored in the house; bored in the house curtis roach; rap challenge

Web entities

Bored In The House; Curtis Roach; Tyga & Curtis Roach; Detroit;
Dreadlocks; Blond; Hair; Brown hair; Bangs; Long hair; TikTok; Song;
SoundCloud; Meme; YouTube; Spotify; Musician; Hip hop music; Rapping

Labels

Hand; Hairstyle; Arm; Beard; Flash photography; Gesture; Wood;
Eyewear; Fashion design; Facial hair; Fun; Event; Flooring; Eyebrow;
Facial expression; Table; Finger; Dreadlocks; Long hair

Pages with full matching images

clickondetroit.com; mashable.com; youtube.com; spot.tv; instagram.com; revolt.tv; inkvilla.com; energetikas.lt; materielesthetique.fr; spotify.com;
capitalfm.com; facebook.com; buzzfeed.com; eska.pl; zip.news; dexerto.com; nytimes.com; forkast.news; theshelf.com; twitter.com; cbc.ca

Memespector GUI

Graphical User Interface Client for Computer Vision APIs

Settings

<input checked="" type="checkbox"/> Google Vision	Features	<input type="text" value="7 selected"/>	Credential file	<input type="text" value="/Documents/Memespector-GUI-macOS/google-cloud-token.json"/>	<input <="" td="" type="button" value="Browse..."/>	
<input checked="" type="checkbox"/> Microsoft Azure	Features	<input type="text" value="7 selected"/>	Endpoint	<input type="text" value=">gnitiveservices.azure.com/"/>	Subscription key	<input type="text" value="abcdef0123456789"/>
<input checked="" type="checkbox"/> Clarifai	Model	<input type="text" value="General"/>	API key	<input type="text" value="abcdef0123456789"/>		
<input checked="" type="checkbox"/> Open Source	Model	<input type="text" value="VGG16 (ImageNet)"/>	Endpoint	<input type="text" value="https://europe-west1-digital-methods-resources.cloudfunctions.net/classify_imag"/>		

Image Sources

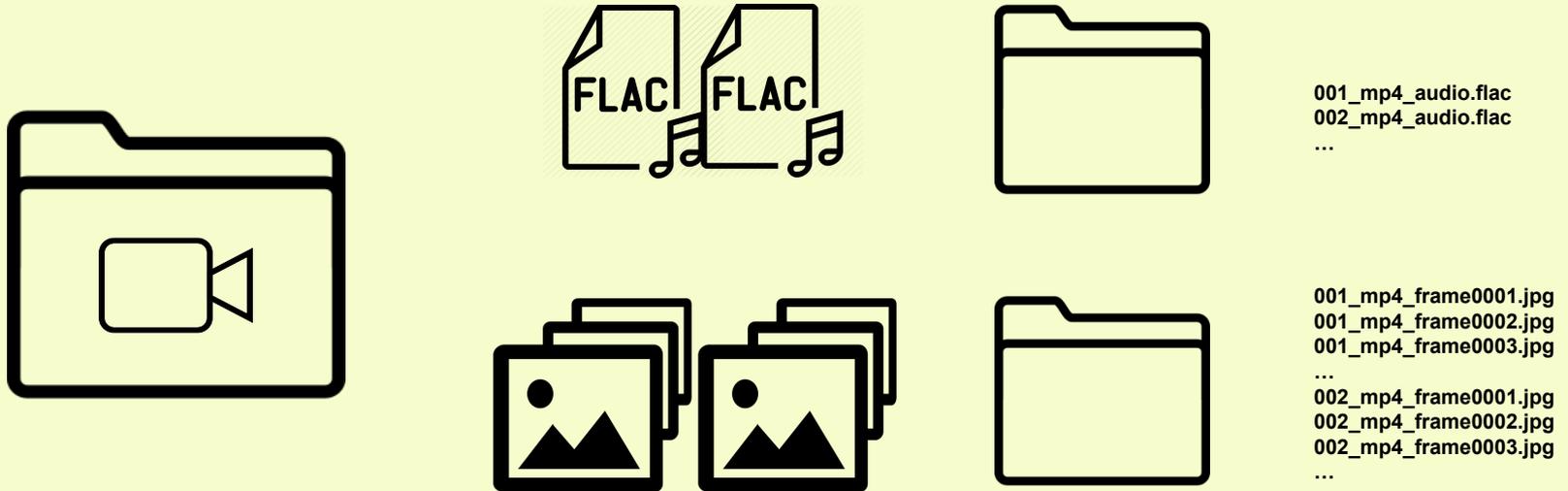
Add

See <https://github.com/jason-chao/memespector-gui>

Output

JSON file (full results)	<input type="text" value="/Users/User/Documents/Memespector-GUI-macOS/cv-apis-date_time.json"/>	<input <="" td="" type="button" value="Browse..."/>
CSV file (simplified results)	<input type="text" value="/Users/User/Documents/Memespector-GUI-macOS/cv-apis-date_time.json"/>	<input <="" td="" type="button" value="Browse..."/>

How can we analyze a collection of videos?



Extracted video frames and audio tracks can be analyzed with different AI features.



+ Code + Text Copy to Drive

Video Frame and Audio Extractor

This tool extracts the frames and audio tracks from video files. It is designed to work well with video files stored in Google Drive.

Input

- Video files

Output

- Frames (stills) of the input video files
- Audio tracks (in flac format) of the input video files

Video Extractor (Chao 2023) offers different sampling techniques for extracting frames (stills) from a folder of input video files. It saves extracted images in a new folder, which then can be analyzed with different computer vision techniques. It also extracts audio tracks for speech-to-text recognition.



+ Code + Text Copy to Drive

Speech-to-Text

This tool converts speech in audio files to text using the Google Cloud Speech-to-Text API. It is designed to work well with audio files stored in Google Drive.

Input

- Audio files (in flac format)

Output

- The speech in text

Speech-to-text converter (Chao 2023) transcribes audio content as captions using Google Cloud AI. It saves recognized text in a spreadsheet file, which then can be merged with TikTok metadata. The main affordance of this tool for TikTok research is that it (at least partially) helps to work around the problem of the “original sound”.

G	H	I	J	K	L	M
data/stats/c	data/stats/p	data/effectS	data/music/authorN	data/music/title	speech-to-text transcript	duration
		+		woah	people love that I hate myself. I climbed out of my head and watched	16
			Em	original sound	I climbed out of my head and watched myself implode a thought with	15
		+		woah	I climbed out of my head and watched myself implode a thought with	10
			Marisa	Mid June Alt Tik Tok	the average dog things are getting a little wild at Caillou's house. wall	50
			Em	original sound	brain is poison and I'm searching for the antidote but every time I find	5
		+		woah	people love that I hate myself. I climbed out of my head and watched	15
			Marisa	Mid June Alt Tik Tok	boner alert app adjust things are getting a little wild at Caillou's house	50
		+		woah	find out of my head and watch myself without a body I be the shot to	13
		+		woah	I hate myself kind out of my head and watched myself implode a thou	13
	1380	488100	Tik Toker	GaBble HaNnAhS	people love that I hate myself. I climbed out of my head and watched	15
	1666	175800	Deep Fella	original sound	I climbed out of my head and wanting self implode a thought without	12
			Marisa	Mid June Alt Tik Tok	boner alert app adjust things are aettina a little wild at Caillou's house	50
			C	Originalton	I climbed out of mv head and watched mvself implode a thought with	10
	2230	308400	Marisa	Mid June Alt Tik Tok	boner alert app adjust things are getting a little wild at Caillou's house	50
	1475	147300	Lilyanna	Deep tiktok test	I need a shot to take a load off my brain has poison and I'm searching	59

Audio content: TikTok creators often upload their videos with “original sound” instead of using TikTok’s built-in music library. If the video is linked with a song taken from the TikTok library, the song and author name is listed. However, as soon as content involves audio editing, the sound will be listed as “original sound” and provided with a unique numeric ID. →

The challenge of sound recognition/sense making.

Spreadsheet output with TikTok metadata scraped using Zeeschuimer (Peeters 2021)

For more on TikTok sounds see e.g., [Abidin & Kaye 2021](#);
[Bainotti et al 2022](#), [Geboers et al. 2022](#),

1.

Networked soundscapes
Resonant sounds and co-hashtags



🎵 WOAH AND THE DEEPRFRIED ANIMAL DANCE MEME

♡960400 #deeptiktok #viral #fyp #darkside #alttiktok #alt #deep #foryoupage



♡425700 #shaneyaw #gabbiehanna #alt #alttiktok #deeptiktok #foryou #fyp



♡310900 #beanz #peppapooocult #peppa #deeptiktok #treclut



♡184100 #fyp #4u #alt #TreatYourPet #deeptiktok #cursed #trè #cometothetree #trècult #foryou



♡312600 #foryoupage #foryou #fy #meme #deeptiktok #alttiktok #alt #trè #tree #sm6 #beans #elitesideoftiktok



♡184100 #fyp,#4u,#alt,#TreatYourPet,#deeptiktok,#cursed,#trè,#cometothetree,#trècult,#foryou



♡103700 #fyp#fyp #deeptiktok #summer2020 #woah #tree # #subwaysurfers



♡80000 #deeptiktok;#subwaysurfers



♡71300 #deeptiktok;#alttiktok;#elitetiktok;#climbedoutofmyhead



♡91300 #deeptiktok;#fyp;#demons;#foryou



**NAVIGATING THE VERNACULAR STYLE SPACE OF
#DEEPTIKTOK BY CHOOSING DIFFERENT PATHS:**

SOUNDS, EFFECTS, EMOJIS, HASHTAGS...

+

AUDIOVISUAL CONTENT/TEMPLATES

digital (moving) images as data multiplicities

Platform Metadata

engagement metrics
(likes, reblogs, comments, etc.)

+

hashtags, timestamps, account names,
captions, sounds, stickers, effects, etc.



.jpg .png .gif .mp4, etc.

Computer Vision Data

e.g., Google Vision API Labels
(objects, colors, bodies, actions, etc.)

+

detection of web entities and pages
with matching images; speech detection

How to contextualize based on research questions and using different visualization layouts (plot, stack, grid, network, montage, matrix, etc)?

#deeptiktok | 951 videos | 18199 frames

Deep TikTok is a branch of Alternative or Elite TikTok. While Alt TikTok highlights the independent nature of diverse categories, DeepTok sticks with a handful of ultra-original, niche topics, and is known for its deepfried aesthetic.

2020



2021



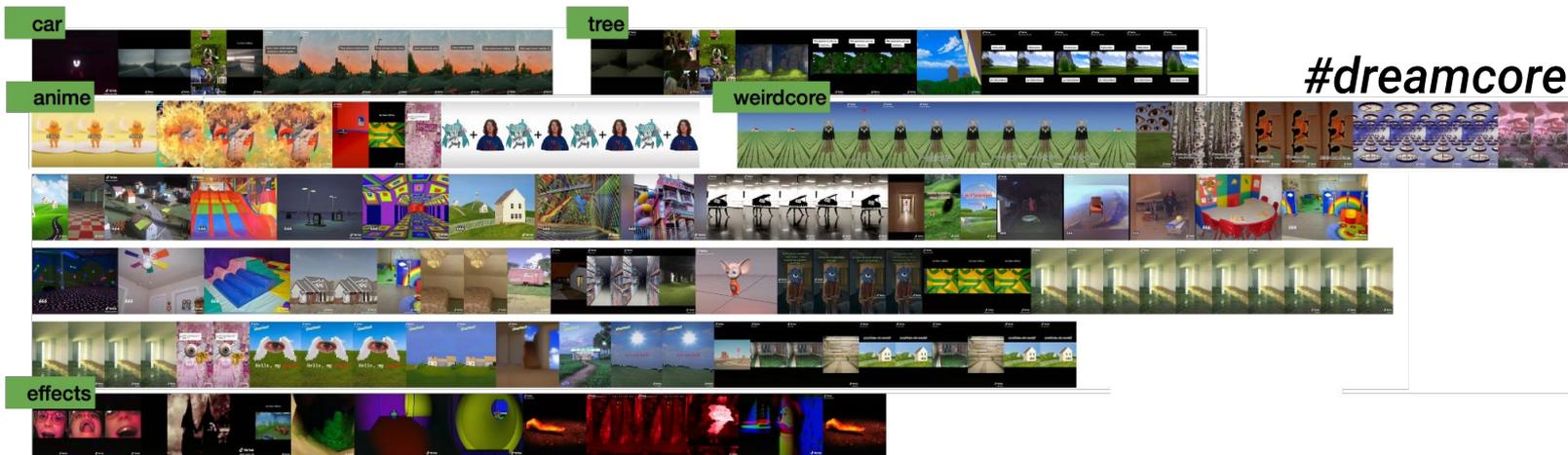
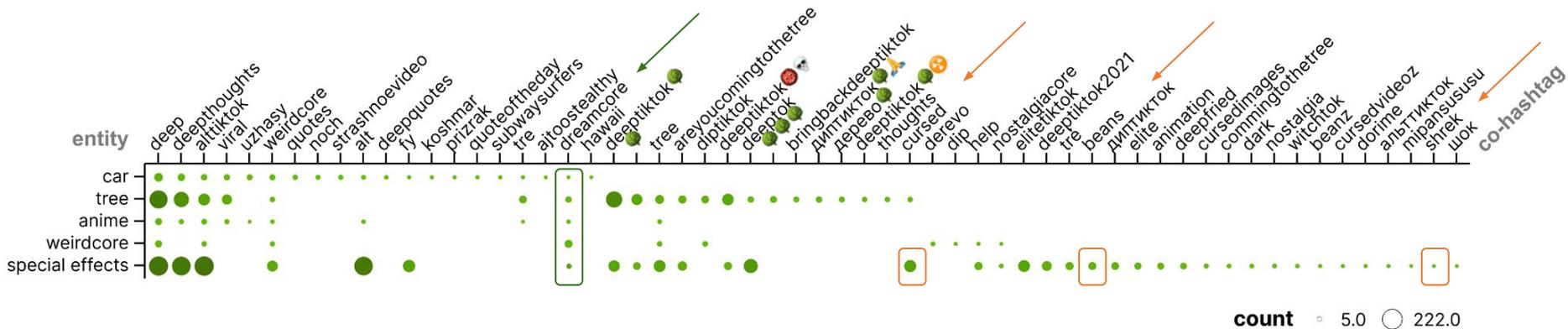
2022



2.

*Effect templates
video content and co-hashtags*





According to i-D, dreamcore is defined as **an aesthetic that revolves around weird imagery “and objects that often tap into nostalgia or things you may have been in childhood.”** But instead of being “cute or comforting,” it creates a sense of surrealism and uneasiness, and most of the videos feature slowed down music ... 18 Jun 2021



<https://www.ypulse.com> › Articles

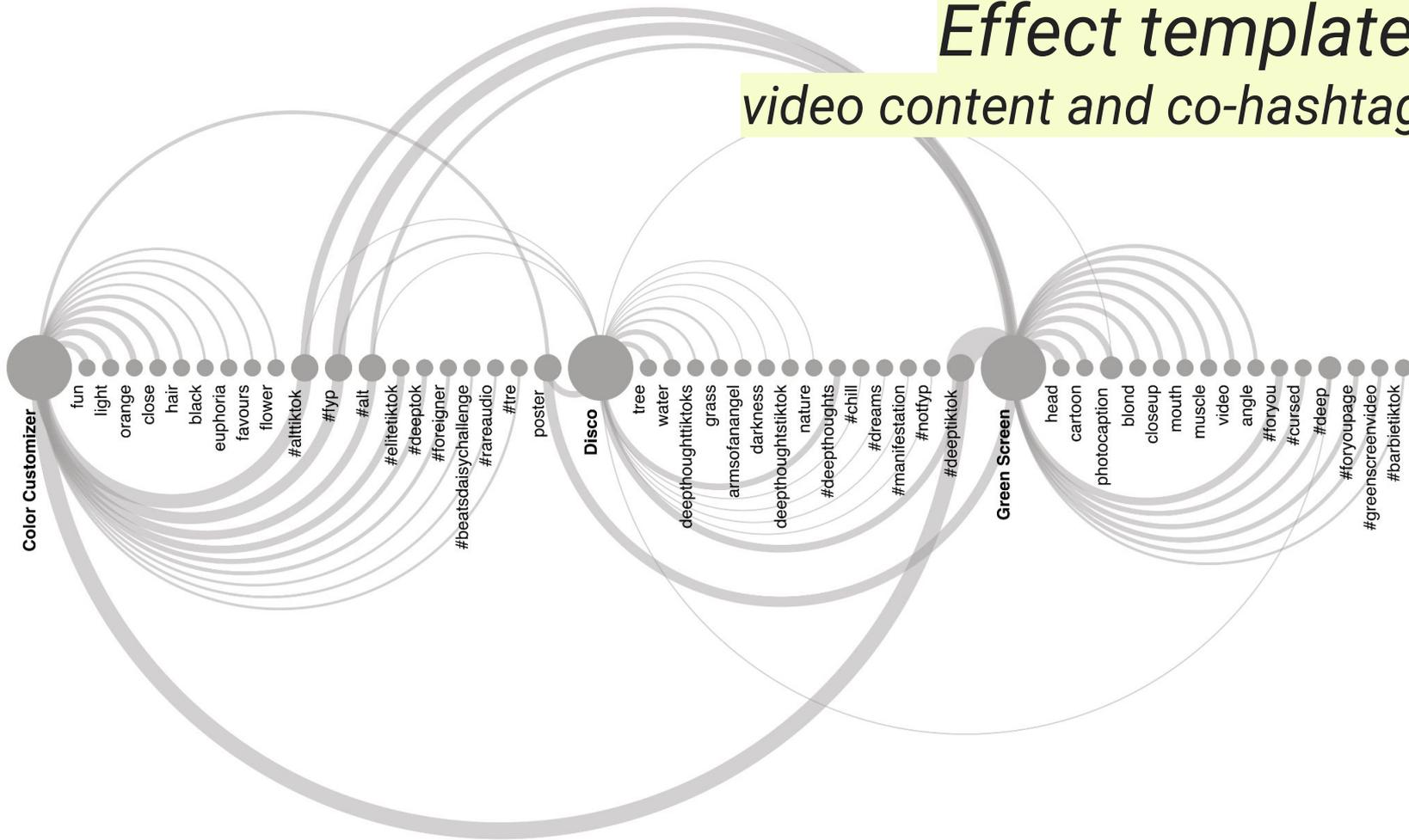
Dreamcore is the Latest Aesthetic Taking Over TikTok on The ...

[?](#) About featured snippets • [Feedback](#)



Effect templates

video content and co-hashtags



 **TOP 10**
WEIRDCORE
TIKTOKS
PUBLISHED
WITH # 

♥557100 #🌳 #HELPMЕ #333 #🌳🌳🌳 #deep #deeptiktok ⚠️



♥458800 #шмонядусеваикона #deep #deep 🌳 #deeptiktok #🌳 #alt #alltiktok



♥442800 #deeptiktok #veganteacher #yeet #alt #areyoucomingtothetree 🌳



♥193700 #😭😭😭!! #диптиктот#дип#deeptiktok#альт#🌳



♥181900 #elbruso #deeptiktok 🌳 #deeptiktok 🌳 #deeptiktok #tree 🌳



♥175400 #🌳 #foringer#forinher#tré#tre#deeptiktok#elitetikto#beans



♥159100 #диптиктот #дип #deeptiktok #альттиктот #альт #🌳



♥128100 #333 #🌳🌳🌳 #deep #deeptiktok2021 #🌳🌳🌳 #deeptiktok 🌳



♥75300 #deeptiktok 🌳 #deeptiktok 🌳 #deeptiktok #deeptiktok ⚠️

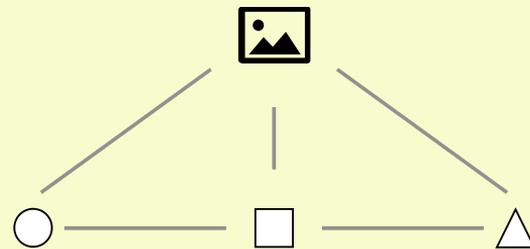


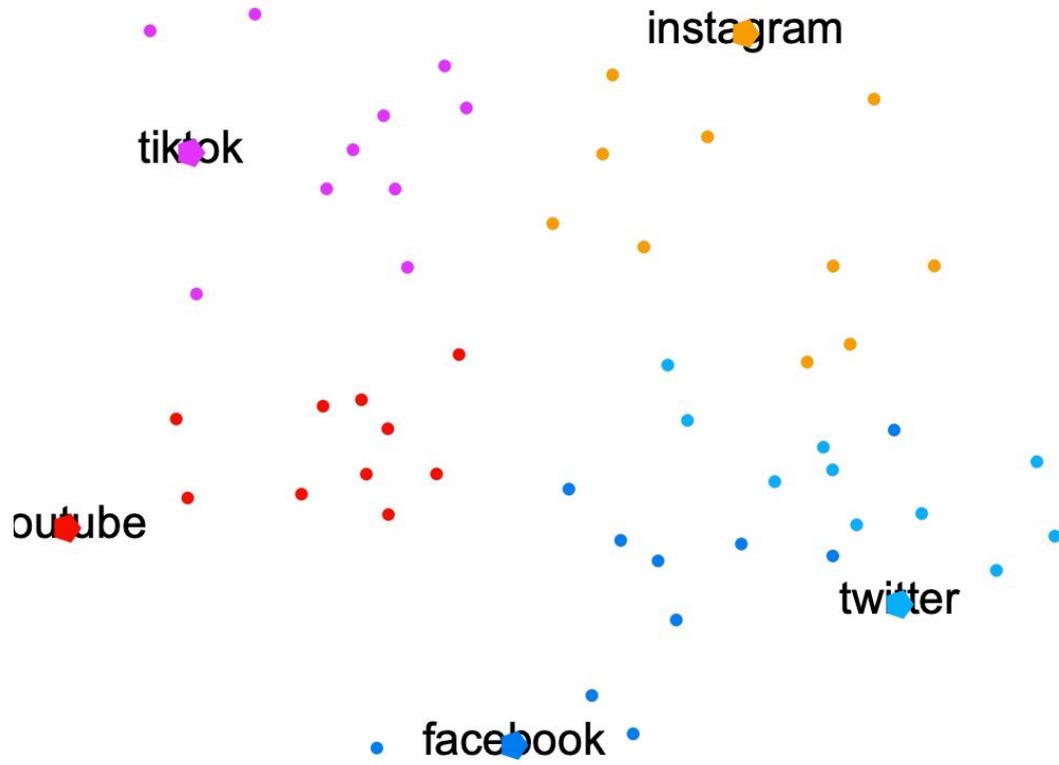
♥73000 #deeptiktok ⚠️ #deeptiktok 🌳 #dreamcore #deeptiktok

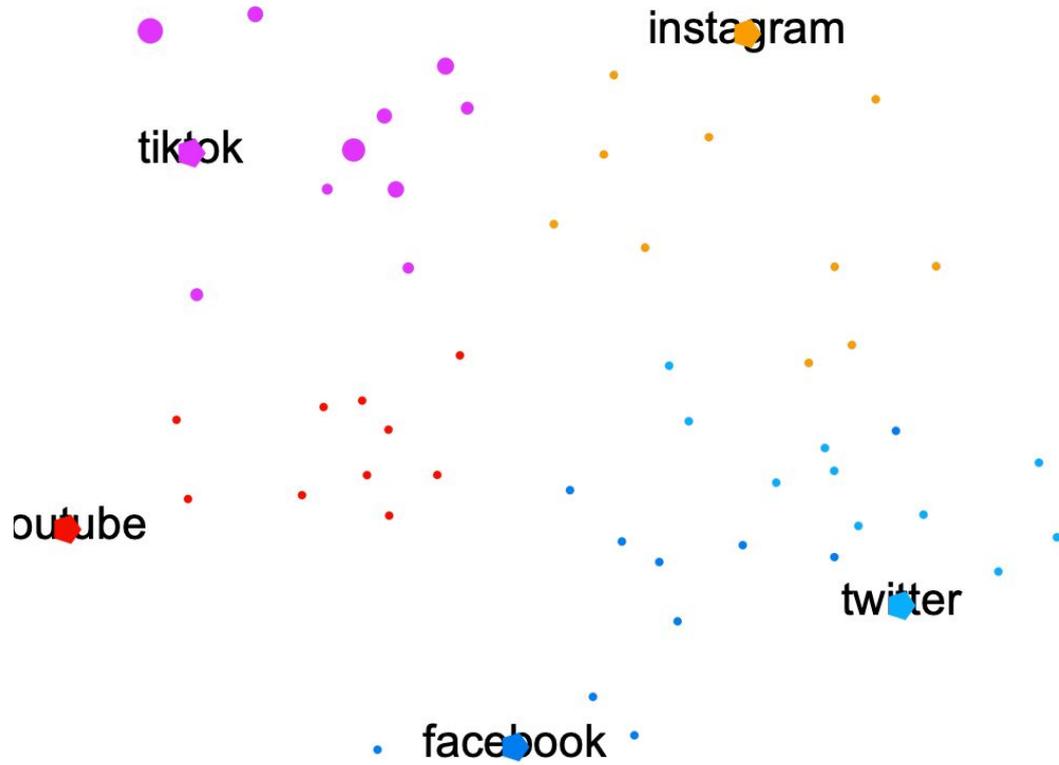


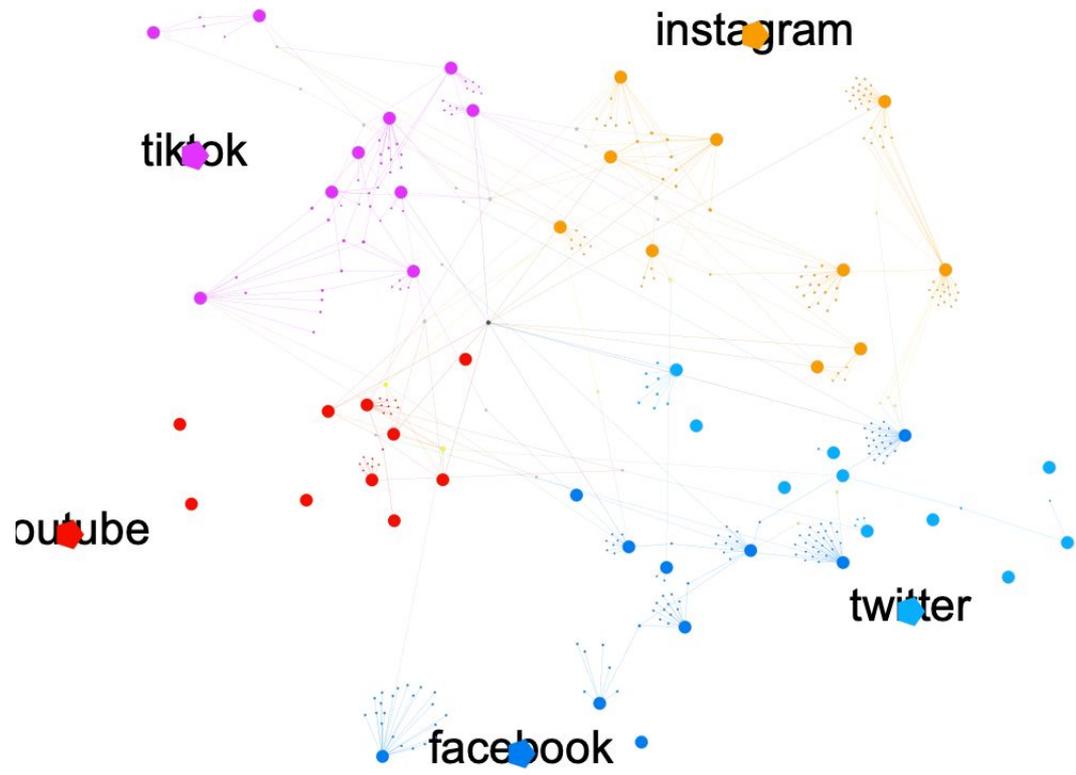
3.

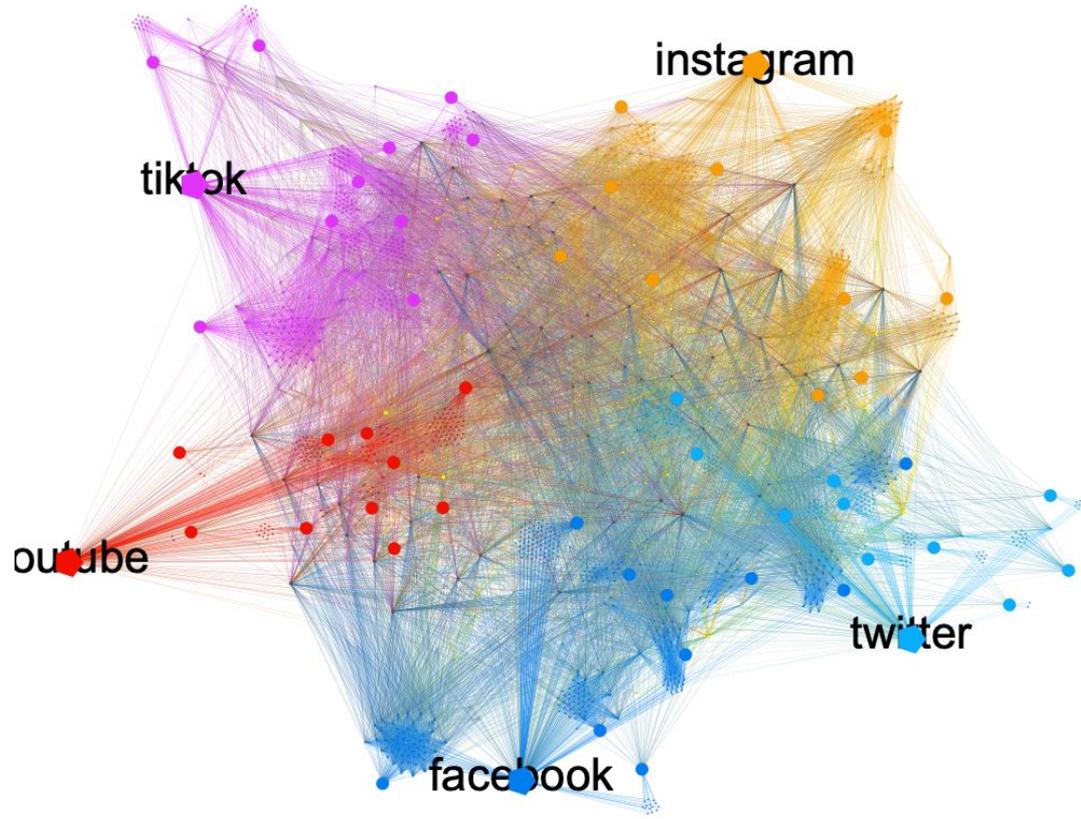
Cross-platform riffing
References across the web

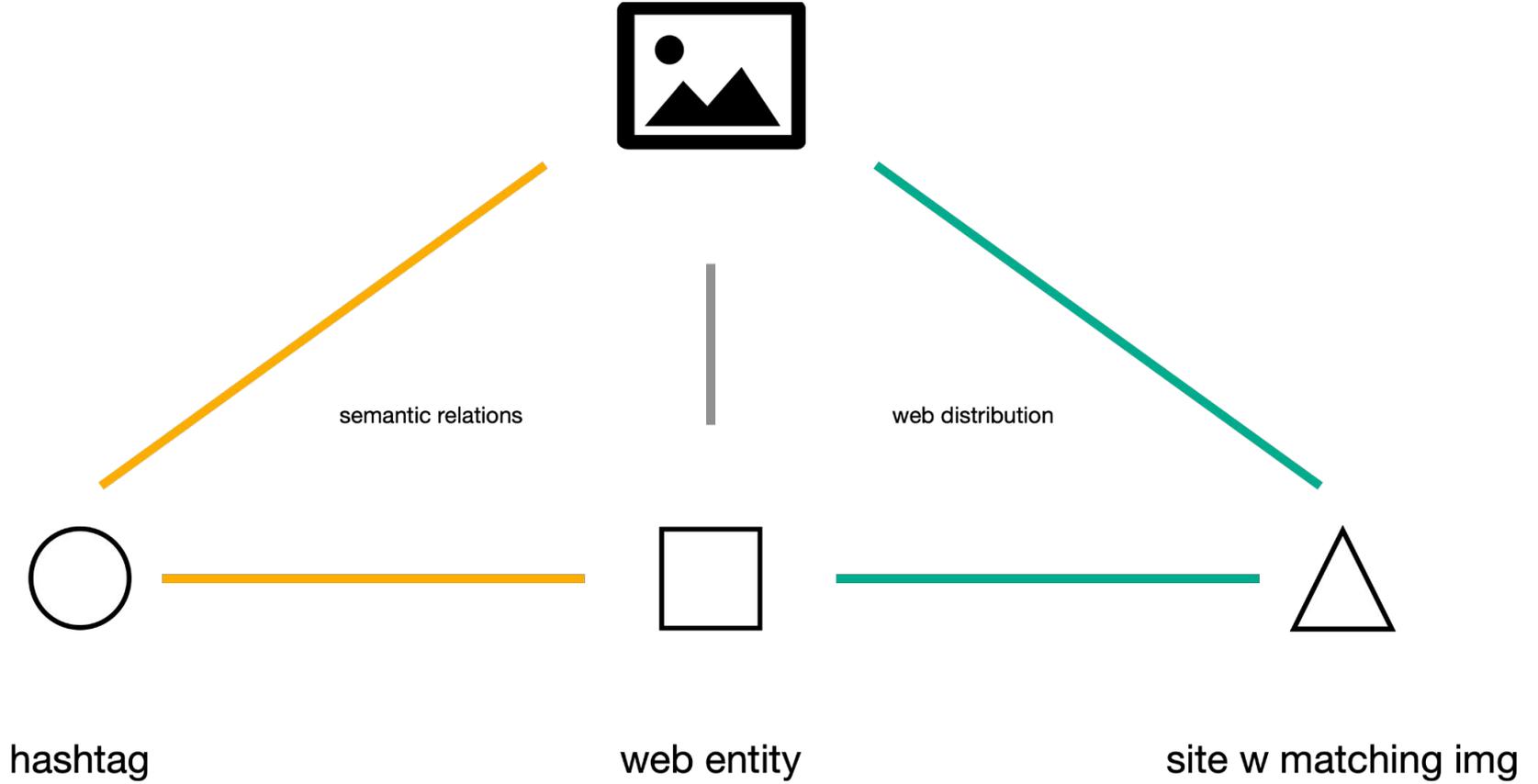




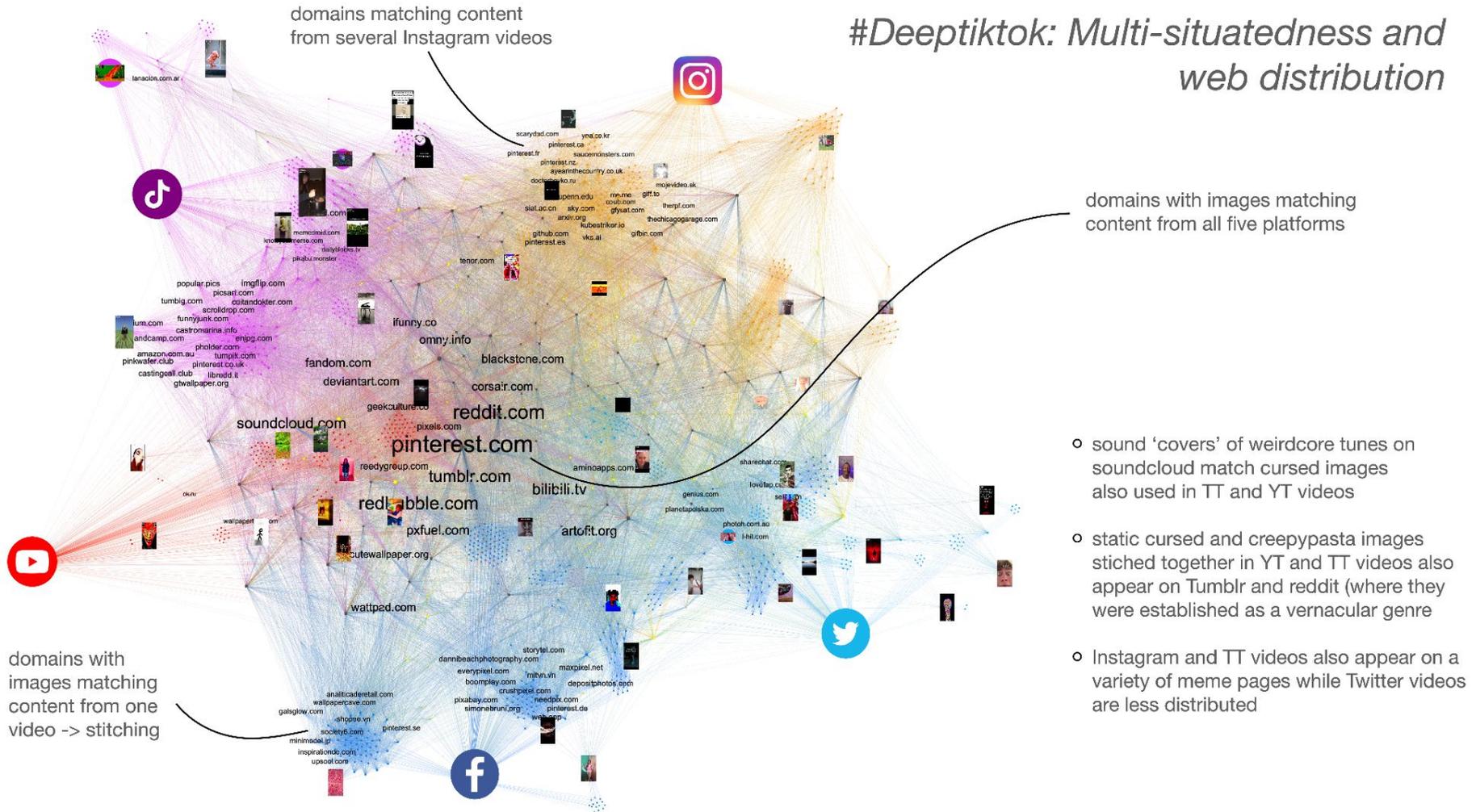








#Deeptiktok: Multi-situatedness and web distribution



Digital Methods

Winter School 2023

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People

Tools

Summer School

Winter School

Papers and Publications

Course

The Link

The Website

The Engine

The Spheres

The Webs

Post-demographics

Networked Content

Z Spaces: TikTok Tactics and Cross-Platform Circulation of Russian Propaganda

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<https://wiki.digitalmethods.net/Dmi/WinterSchool2023ZSpacesTikTokTacticsRussianPropaganda>

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- ↓ [6. Discussion and Conclusion](#)

Summary of Key Findings

OTHER USEFUL LINKS

ZEESCHUIMER

DOWNTHEMALL!

MEMESPECTOR GUI DOCUMENTATION

IMAGEMONTAGE DOCUMENTATION

TIKTOK CULTURES RESEARCH NETWORK

AOIR INTERNET RESEARCH GUIDELINES

RAWGRAPHS

TIKTOK METHODOLOGIES >< ETHICS?

1. include close-up visualizations of body images only after careful evaluation that content creators had intended for their posts to be widely circulated 2. account for potential bias that come with AI analysis; look at the tonality/stance of post captions 3. consider alternative methods of data visualization/ethical fabrication, involving creative, bricolage-style transfiguration of original data