We *Did* Start the Fire
r/wallstreetbets, Flash movements and the Gamestop Short-Squeeze

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Abstract

In January 2021, Wall Street suddenly faced a challenge from an online community, r/wallstreetbets, which organized a large group of small investors in betting against Wall Street hedge funds. In an instant, the online community came to resemble a social movement nature that brought them comparisons to Occupy Wall Street. To improve understanding of this phenomenon, we studied the Wallstreetbets movement relying on a mixed-methods research design, which combines an unsupervised topic model with in-depth qualitative coding. Our findings outline how Wallstreetbets became a 'flash movement', a movement that we define as arising swiftly without former planning or design, through the imbrication of social activities and affordances and constraints of online communities. Our study contributes to (1) the recent interest in spontaneous action in social movements; (2) how social media affordances and constraints affect social movements, and (3) extends methodologies for studying digital social movements.

1. Introduction

In January 2021, something strange happened on Wall Street. The stock of GameStop suddenly rose over 700 % in just one week despite its financial problems and the COVID-19 pandemic hitting its shops. This was even more surprising because analysts and investors had predicted that GameStop's stock would drop. Indeed, hedge funds, led by Melvin Capital, had shorted GameStop stock, meaning they had borrowed GameStop shares, sold them, and were waiting for the price to drop, so they could repurchase the shares at a lower price and then return them to the lender. The reason behind this rapid increase in share price counter to market predictions was small time investors, so called 'retail investors', who organized on a Reddit community called r/wallstreetbets, poured their savings into the GameStop share and held their positions even when facing pressure from the hedge funds and the prospect of losing their investments. According to Bloomberg News, the hedge funds lost around $6 billion in total as they had to buy back the GameStop share that they had borrowed at higher prices. Melvin Capital alone had to secure $ 2.75 billion to cover their position. As r/wallstreetbets caused harm to Wall Street hedge funds, media outlets have described the community as a 'movement' (Bloomberg, 2021), a 'trader army' (NPR, 2021) and compared them to Occupy Wall Street (Politico, 2021). As such, reports indicate that this Reddit community suddenly took on characteristics of a social movement, which formed collective action towards a social goal (Tarrow, 2011).

At first glance, this movement fits into the overall notion that social movements are increasingly happening in digital spaces and through social media, such as online communities (Anduiza, Cristancho & Sabucedo, 2014; Bennett & Segerberg, 2012; Selander & Jarvenpaa, 2016). Yet, the closer we look at the phenomenon, differences between the phenomenon and classic social movement theory emerge. First, even though research on social movements has increasingly investigated the role of social media (Tarafdar & Ray, 2021), it often depicts digital spaces as 'tools' (George & Leidner, 2019) or 'brokers' (Milan, 2015) of social movements. Only more recently have scholars argued that we need to rethink the role of social media in social movements (Tarafdar & Ray, 2021, p. 5). For example, scholars pose that social media may not just be an enabler of social movements, but an organizing agent, such as a free space where social movements may be born (Massa, 2017; Milkman, 2017). However, while it is known that free spaces are crucial for social movements (Rao & Dutta, 2012), little is known about how online communities serve as free spaces (Massa, 2017). Second, in relation to the first point, scholars are debating the role of the affordances and constraints of social media, i.e. the possibilities and corresponding

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hindrances for organizing collective action (Etter & Albu, 2021; Faik, Barrett & Oborn, 2020; Seidel, Recker & Vom Broecke, 2013; Vaast, Safadi, Lapointe & Negoita, 2017). This becomes especially prevalent in online communities, such as Reddit. For example, scholars pose a paradox where online communities offer individuals to join and quickly set up collective action but also constrains collective action due to a lack of control and management (Massa, 2017). Yet when and how social movements manage to straddle such paradoxes is not well understood (Massa & Mahoney, 2021). Third, r/wallstreetbets falls outside the scope of regular both classic and online movements in how quickly it has unfolded. The explosiveness in activity and coordinated action towards the GameStop short is puzzling. Traditionally, social movement theory has assumed that social movements emerged through careful deliberation and strategic planning (Almeida, 2019; Ganz, 2000). Only very recently, studies began to note that social movements can spontaneously arise when crowds share similar emotions, which, for example, was the case with Black Lives Matter (Kudesia, 2021). Yet, why social movements spontaneously emerge is poorly understood, as research mostly focuses on outcomes rather than the interplay creating spontaneous action and turning into a movement (Reinecke & Ansari, 2020). Hence, to understand the critical case of Wallstreetbets, we need to develop new theory to understand (1) the role of social media for social movements and (2) how and through which mechanisms social movements in digital spaces may 'explode'. To enlighten this, we ask: How can a social movement suddenly arise in an online community?

To investigate this question, we collected data from r/wallstreetbets during the peak between January 14th and January 28th, thus capturing key activity as the GameStop share price spiked. We used a Python Script to collect 1'048'575 posts by 179'634 community members in this period. Then, we applied a mixed-methods approach combining topic modelling with qualitative coding. The purpose of this combination was to use the topic model to gain an overview of the community during this period, such as gaining insight into key conversations, key actors and the language of the community. Against this backdrop, we then coded the top 100 most upvoted comments during this focus period. Using this mixed-methods approach we unpack how wallstreetbets suddenly became a large social movement determined to take on Wall Street and create social justice for a generation of Millenials hurt by the Financial Crisis of 2008.

Our findings draw out how r/wallstreetbets unfolded as a social movement through the imbrication of social activities and the affordances and constraints of the online community. More to the point, we outline four mechanisms where social activities imbricate with online community features: building and superspreading collective identity, forming joint purpose in the online community free space, boosting action through meta-voiced rallying, and creating self-referential legitimacy and transforming the online community space. Building on these empirical findings, we coin the term 'flash movement', which designates a movement similar to traditional social movements by having a collective identity and joint purpose but unique in its ephemeral nature, violently flashing in bursts for then to dissipate. Our findings and model contribute to the debate around social media and social movements in several ways. First, our conceptualization of 'flash movements' contributes to calls for integrating theories of spontaneous action into the study of social movements (Kudesia, 2021; Snow & Moss, 2014). More to the point, whereas research has investigated the conditions for spontaneous action (Snow & Moss, 2014), as well as how social movement strategy emerges (Kudesia, 2021), we outline the interplay between different elements that organizes spontaneous action into a flash movement. Second, by engaging in the interplay between social mechanisms and the affordances and features of online communities (Etter & Albu, 2021; Massa, 2017; Vaast et al., 2017), we extend research on this matter. Here, in particular we point out that specific ways of community engagement utilize the affordances as a speeder, while avoiding the constraints that act as a brake. Thus, certain acceleration factors come into play and allow for swift spontaneous action. Last, our article makes an important methodological contribution to studying social movements by using big data. More precisely, we outline a method that combines unsupervised topic modelling with in-depth qualitative coding, thus allowing us to 'harvest' the best of both worlds.

2. Theoretical Background

2.1. Social movement and Online Activism

Social movements as comings together of people in joint action have been engines of social change throughout history (Almeida, 2019). From the Women's Christian Temperance Union combatting alcohol consumption in the US (Hiatt, Sine & Tolbert, 2009) to labor movements that changed social hierarchies in society (Fantasia & Stephan-Norris, 2004) to Occupy Wall Street and the Indignados (Gerbaudo, 2017), social movements have been a key factor in societal change. Social movements are a

complex phenomenon spanning vastly different groups, goals and tactics, yet what characterizes all of them is that they are collective groups of people, mostly common people who lack powerful positions from which to influence society, who seeks to provoke social change through collective action (Almeida, 2019; Tarrow, 2011). To understand how and why social movements emerge, the literature points to several elements that function as key building blocks; common interests, organizational and resource infrastructure, group identities, and collective action (Almeida, 2019: 122; Snow et al., 2019: 5). For a social movement to arise, individual grievances need to be translated into common interests, for which some sort of organization is needed (Almeida, 2019). The social movement organization (SMO) is key in translating grievances into common interests and to mobilize resources because it provides coordination (McCarthy & Zald, 1977; Selander & Jarvenpaa, 2016). A classic example of SMOs is the civil rights movements, which succeeded by setting up formal organizations that could mobilize members towards a strategic goal (McCarthy & Zald, 1977).

Unsurprisingly, the rise of social media, in particular online communities on Reddit and Facebook, has affected social movements. Recent research has highlighted how social movements unfold as 'hashtag activism' (Xiong, Cho, & Boatwright, 2019), 'hacktivism' (Massa, 2017), or the exposure of confidential information as seen in the case of the Panama papers (Neu, Saxton, Everett, & Shiraz, 2020). Selander and Jarvenpaa (2016) refer to these new tactics as a digital action repertoire that SMOs can use. Yet, some scholars argue that social media goes beyond offering certain repertoires. Bennett and Segerberg (2012) argue that social media changes the nature of social movements from a logic of collective action that is dependent the organizing and strategizing by an SMO to connective action, which is when actors connect through social media by sharing personal content. A major difference between these two modes of action is that collective action is organized by SMO, while connective action is a bottom-up spontaneous order where the movement emerges from people realizing shared interest goals through sharing content. Following this perspective, actors may self-organize by using social media as the organizing agent that provides a space and connections (Bennett & Segerberg, 2012). In other words, the two streams view social media differently. Scholars in the collective action stream view social media as an enabler for SMOs (George & Leidner, 2019; Tarafdar & Ray, 2021), for example as a tool to facilitate communication and mobilize resources (Gerbaudo & Treré, 2015; Selander & Jarvenpaa, 2016). In

comparison, Bennett and Segerberg (2012) pose that that social media can do more than just enable social movements, they can be the organizing agent (Bennett & Segerberg, 2012). In brief, Bennett and Segerberg (2012) pose that social media possess certain affordances that allow them to organize social movement activity (Bennett & Segerberg, 2012).

However, despite this, most work in both streams have an SMO as the focal actor with social media then varying in importance (e.g. Anduiza et al., 2014; Selander & Jarvenpaa, 2016). Only recently have scholars started to provide evidence for the idea of social media as an organizing agent (Tarafdar & Ray, 2021), showing for example how social media may be a birthing ground for spontaneous social movements (Massa, 2017; Massa & Mahoney, 2021; Milkman, 2017). This newer work poses that social media, in particular online communities, possess affordances that allow online communities to form without SMOs organizing the movement. This argument is then furthered by the notion that millennials are more avid users of social media. Milkman (2017), for example, argues that millennial social movements are not just helped by social media, they are born on social media. In short, recent work is starting to rethink the role of social media in social movements from an enabler of an SMO to an agent that organizes the movements themselves. Yet, scholars also argue that online communities have certain constraints (Etter & Albu, 2021), which necessitates that SMOs organize and management activities on social media (Selander & Jarvenpaa, 2016). Thus, the question becomes: can social media be an organizing agent on its own due to the affordances or does the constraints necessitate deliberate and strategic organizing?

2.2. The Affordances and Constraints of Online Communities

Online communities are open collectives of dispersed individuals who gather around a shared interest (Faraj, Jarvenpa & Majchrzak, 2011). It is widely assumed that online communities, and social media in general, transform how social movements are organized (Bennett & Segerberg, 2012). The reason is that online communities possess certain affordances, which we here understand as action possibilities allowed by material properties existent in information systems (Seidel et al., 2013, p. 1279) [1]. An example of

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[1] Following this perspective, we see affordances as 'built in' the technology, unlike scholars who portray affordances as an emergent phenomena that appears when actors engage and use technology (e.g. Faraj & Azad, 2012, Leonardi, 2013)

this is Sæbø et al.'s (2020) study, in which the authors show that when social movements actualize and combine social media affordances, they can create collective action. However, online communities also possess technological features that constrain social movements. For example, Etter and Albu (2021) note that social movements can be hindered by social media because it allows for information overload. Similarly, Massa and Mahony (2021, p.33) note that the anonymity offered by online communities hinders members from building a shared identity. Therefore, it is important to consider both the up and downsides of how the technology of online communities shapes social movements (Etter & Albu, 2021). Furthermore, it is important to note that these affordances and constraints are not stable entities that have equal influence, how they affect the social movement depends on how social action is organized (Thapa & Sein, 2018). Affordances and constraints may be latent depending on how actors perceive them and how they go about their activities (Thapa & Sein, 2018). In other words, whether a social movement is boosted or limited depends on whether actors actualize affordances while deactivating constraints (Sæbø et al., 2020; Thapa & Sein, 2018). This combination of social activities and technological features is often referred to as 'imbrication' (Leonardi, 2011). In table 1, we summarize these technology affordances and constraints based on our review of the literature.

Insert Table 1 about here

Despite this knowledge about affordances and constraints, little is known about how actors can utilize them and how this shapes social movement action (Etter & Albu, 2021; Massa, 2017). Only very recently have studies begun to understand how social movement activity becomes organized through online community features (Massa & Mahony, 2021). In this article we, therefore, aim to investigate the sudden rise of r/wallstreetbets through a focus on affordances and constraints of online communities to understand its explosive development.

3. Methods

3.1. The case of r/wallstreetbets

Created in 2012, the online community r/wallstreetbets on Reddit is a place for individual retail investors and amateur day traders to share strategies, stories and inside jokes surrounding the trading of stocks and options. The community is known for its peculiar and sometimes juvenile conversation style, which relies heavily on jargon, memes and community-specific slang. For instance, community members signal familiarity by calling each other 'apes', 'retards' or 'autists' and they describe practices such as holding a stock – even as it drops in value – as possessing 'diamond hands' while selling a position prematurely is referred to as having 'paper hands'.

After almost a decade of relatively stable and modest growth, the community suddenly saw an unprecedented influx of new members in early 2021: Between January and February 2021, the community effectively quadrupled from 1.7 million members to over 9 million members[2]. The sudden and staggering growth was due to the rapid and widely publicized emergence of collective action: In January 2021, community members banded together to buy and hold one particular stock (US-based video game company Gamestop), causing its price to surge beyond all expectations[3]. Media platform CNBC (2021) described the actions of community members as "an army of retail investors" coordinating on social media to "push Gamestop shares up 400% in just one week". The surge in price caused significant losses for several Wallstreet hedge funds who had bet against, or 'shorted', the Gamestop stock. The community-led 'short squeeze', as the maneuver is called in investment jargon, has been widely publicized, shared and commented on both across online communities as well as in the mainstream media, which in turn has added to the community momentum, continuously motivating new members to join the movement – both as spectators and investors.

3.2. Data Collection

In order to answer these questions, we rely on large-scale conversation data gathered from the online community r/wallstreetbets on Reddit. Specifically, we used a self-developed Python script to access the Reddit API via the Python Reddit API Wrapper (PRAW), collecting all posts in the community between January 14st and January 28th, thus capturing all conversations taking place in the two weeks leading up to the 'short squeeze' which peaked on January 28th. In total, our data-set contains 1'048'575 posts by 179'634 community members. The most active

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[2] https://subredditstats.com/r/wallstreetbets

[3] Gamestop (GME) closing share price on January 11th 2021 was 20$ compared to 348$ on January 27th.

member contributed 1'121 posts while an average member contributed 5 posts. Based on this data, we conducted two different analyses. First, we ran an unsupervised topic model identifying 95 term clusters which can be grouped into 13 themes. The topic model reveals recurring conversations – words which are frequently used together – and thus offers and unconstrained and unguided overview of mentioned actors, issues and community-specific language. Second, we manually coded the 100 most upvoted conversations during the peak-time surrounding January 28th (see Figure 1). Our manual coding was guided by the relevant themes (actors, issues and community language) identified in the topic model.

3.3. Data Analysis: Topic Modelling and Qualitative Analysis

In order to uncover recurring themes in the conversation data, we ran a topic model (Latent Dirichlet Allocation, LDA) in R which allowed us to automatically 'code' text into a number of latent topics (e.g., Rafail & Freitas, 2019) among all conversations taking place between January 14th and 28th. Log-likelihood revealed an optimal number of 95 topics which we manually coded, assigning each topic a brief description, based on the top recurring words in each topic (Levina & Vaast, 2015).

Insert Figure 1 about here

In order to gain a more in-depth understanding of community motivations and purpose (why) as well as dynamics and recurring mechanisms sparking collective action (how), we decided to manually code the 100 most upvoted threads during the focus period. The majority of these 'top' conversations took place during the peak time between January 27th and 28th and they encompassed a total of 619'884 comments. Coding was conducted in three steps following best qualitative practice (e.g., Etter & Albu, 2021). First, two authors coded the top 100 threads and assigned brief descriptors. Second, the two authors compared their codes, solved disagreements, and adapted their coding. In doing so, we arrived at four key mechanisms, which we present in the next section. Last, a third author critically assessed the coding.

4. Findings

Our analysis of conversation data surrounding the critical period where r/wallstreetbets (WSB) caused a spike in the share price of GameStop illustrates how the community suddenly transformed into a movement through four key mechanisms: building and superspreading collective identity, forming joint purpose in the online community free space, boosting action through meta-voiced rallying, and creating self-referential legitimacy and transforming the online community space. These mechanisms consist of two parts, which in their interplay create a fast-growing yet stable social movement. First, they consist of traditional social movement activities such as building up collective identities or slogans. Second, they consist of how these social activities engage affordances and suppresses constraints of the online community. This creates what we term 'acceleration factors', which is when social movement activity is sped up due to the imbrication with affordances and constraints. Our findings draw out how these accelerations factors come into being when affordances are utilized while constraints are avoided. As such, they represent a particularly novel for of imbrication between technology and social action. For example, we find that the members shared deeply personal stories of how the 2008 crisis had hurt them and their family. These stories are then upvoted and brought to the forefront of threads and the community. At the same time, the personal stories and detail provided in discussions circumvents the lack of authenticity often encountered in such spaces, thus enabling collective identity building. Due to space constraints, we have summarized the findings in table 2:

Insert Table 2 about here

Finally in figure 2, we conceptualize how the movement gains momentum and speed first through rapid identity galvanization, where the community swiftly changes identity overall, then through spontaneous purpose ascension, where the community finds a joint purpose and uses the affordances of online communities to broadcast this purpose across Reddit, gaining new members, then through action augmentation, where members engage with others' comments through meta-voicing, thus creating a 'snowball' effect that boosts action. Finally, the movement gains speed through wide movement diffusion, which feeds back into the identity building, enforcing it, as well as back into the purpose construction, which is spread and tracked through the imbrication of tracking and celebrating with online community features.

Insert Figure 2 about here
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5. Contribution and Conclusion

In this short paper we sought to understand the phenomenon of a social movement suddenly emerging out of an online community. Utilizing a mixed-methods approach, we outline the mechanisms that formed what we term a 'flash movement', which is a movement that forms, organizes, and creates action within a rapid time span without prior planning or deliberation. We find that the mechanisms that allow the 'flash movement' to rapidly reach critical mass are resulting from the imbrication of social action and the technological features of online communities. In doing so, we coin a new term, acceleration factors, which encompasses how the imbrication speeds up social movement formation. Taken together our study makes three contributions. First, we advance recent debates on spontaneity in social movements (e.g. Kudesia, 2021) by conceptualizing why and under which conditions online communities might turn into "flash movements". Second, by conceptualizing acceleration factors, we extend research on the the influence of social media affordances and constraints on social movements (e.g. Etter & Albu, 2021). Finally, our study offers a novel mixed methods research design for studying large scale, rapidly evolving social movements organizing in online communities.

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7. Tables and Figures Appendix

Table 1: *Overview of online community affordances and constraints*

		Description	Example from the literature
Technology Affordances	Free Space	Online communities offer actors a space where they can discuss grievances without control or interference from the opposing elite (Massa, 2017)	The hacker collective Anonymous arise on 4chan, a social media with very little social control and oversight (Massa, 2017)
	Low entrance threshold	As online communities have permeable boundaries (Massa, 2017), and are not inhibited by geography (Hwang et al. 2015), new members can easily join in	New members flock onto the Anonymous 4chan group after they gain notoriety (Massa, 2017)
	Augmentation	Features of online communities, such as community ranking, heightens visibility of campaigns, increases attention towards mobilization and increases interactions (Etter & Albu, 2021).	Social movement is ranked as relevant on social media, making it more visible to non-members (Etter & Albu, 2021)
	Meta-voicing	Community members can instantly react to each other and connect comments through replies (Majchrzak et al. 2013)	Social media allows users to 'comment together' and build a loop of similar jokes (Etter & Albu, 2021)
Technology Constraints	Low embeddedness	Weak social ties mean that members may leave communities as soon as immediate interest dissipates (Massa, 2017).	Members leave Anonymous community after hype settles (Massa, 2017)
	Lack of membership control	Due to a lack of boundaries, online communities may face 'crowd swarms' of new users with little knowledge or respect of the community, who disrupt the community (Majchrzak, Faraj, Kane & Azad, 2013; Massa, 2017).	People who show up at events are not members of the movement but just random people that got the event suggested to them on Facebook (Etter & Albu, 2021)
	Lack of authenticity	Online community interactions may be more performative rather than authentic (Massa, 2017). Moreover, anonymity hinders shared identities and culture (Massa & Mahony, 2021).	Trolls frequent online communities and disturb members wanting to organize (Etter & Albu, 2021)
	Memory loss due information overload	Because of the sheer scale of information (Etter & Albu, 2021), online communities may face memory loss, meaning that goals and social norms may dissipate (Majchrzak et al. 2013).	Too many hashtags obscure what action the movement wants to take (Etter & Albu, 2021)

Table 2: *Overview of how social activities imbricate with affordances and constraints to accelerate the WSB movement*

Mechanisms & Acceleration factors	Mechanisms & Prevalent key conversations	Representative Quotes	Affordances used	Constraints avoided	Imbrication outcome
Mechanism *Building and superspreading collective identity* **Acceleration factor 1** *Rapid Identity Galvanization*	Building up collective identity through personal stories, juxtaposing identities and galvanizing in and outgroups *Emotions; Community; Actors*	**Personal Stories:** *"I was in my early teens during the '08 crisis. I vividly remember the enormous repercussions that the reckless actions by those on Wall Street had in my personal life, and the lives of those close to me [...] When that crisis hit our family, we were able to keep our little house, but we lived off of pancake mix, and powdered milk, and beans and rice for a year…"* **Galvanizing in and out groups** *"…this community has helped people pay off their debts, care for sick loved ones, allowed people to give back to their local communities, and so much more."*	Augmentation allows emotional personal stories to rise to the top Juxtaposing identities allows new members to quickly navigate desired identities	Personal stories provide authenticity Setting up identities and galvanizing in and outgroups alleviate the issue with membership control as members follow informal rules.	Rapid identity building that allows the community to change from nonserious action to serious action
Mechanism *Forming joint purpose in the online community free space* **Acceleration factor 2** *Spontaneous Purpose Ascension*	Deriving a joint purpose through justice narratives, higher goods and individual goals *Villains; Institutions and financial crisis; Politics; Villains*	**Justice Narratives** *"My house went down 70% in value and I was forced to short sell it.. [...] Had to liquidate all cash...file bankruptcy...destroyed my credit....and lost the house. I built back up 50k in retirement and guess where it all is? GM...motherf***ing E. This isn't about the money. I'm holding. Until they bleed out."* **Alluding to a higher good** *"We are here to level the playing field and create a new market."*	The Community is shielded from outside forces, allowing members to develop a social purpose. Justice Narratives and higher goals triggers attention of members and non-members.	The justice narratives and higher goals provide authenticity and keep actors interested in the cause.	Rapid coalescence around a share purpose
Mechanism *Boosting action through meta-voiced rallying* **Acceleration factor 3** *Action Augmentation*	Rallying action through shared acts of heroism, bargaining with the community and community rituals *Trading & Investment; Emotions;*	**Bargaining with the community** *" I was -60k and I f*cking held! Imagine that this is life changing money for me. I love you all and please continue to hold!"* **Community Rituals** Repeating *"This is the way"* throughout the thread	Rallying Action serves to engage members in meta-voicing, meaning that members continuously react to each other's' action. This then allows	Rallying action directs attention to the movement's goal and acts to sustain community engagement.	Members are engrossed in the movement and desires to join in on the action

	Community; Culture		the community to build critical mass.		
Mechanism *Creating self-referential legitimacy and transforming the online community space* **Acceleration factor 4** *Wide Movement Diffusion*	Claiming Legitimacy through naming allies, mirroring outside perceptions, and tracking and celebrating successes *News; Actors; Culture; International; Politics*	**Mirroring Outside Perspectives** *"My dad also called me today because he read what's happening in the newspaper…He told me to buy more lol.* ***Tracking Success*** *"FIFTY. MILLION. DOLLARS.1000x return!..Literally unbelievable. Been here since he crossed 1M and I don't even have the words for this. This is a level of conviction I've rarely seen by anyone, anywhere, for anything.".*	The claiming legitimacy mechanisms transform the free space of WSB into a 'resourcing space' where there is willingness to challenge the elites	By continuously tracking and celebrating success, the community provides content ties that resolves the problem with lack of memory in online communities	Action is amplified and the identity and purpose are enforced

Figure 1: *Topic model outlining key conversations in r/wallstreetbets 14-28th of January*
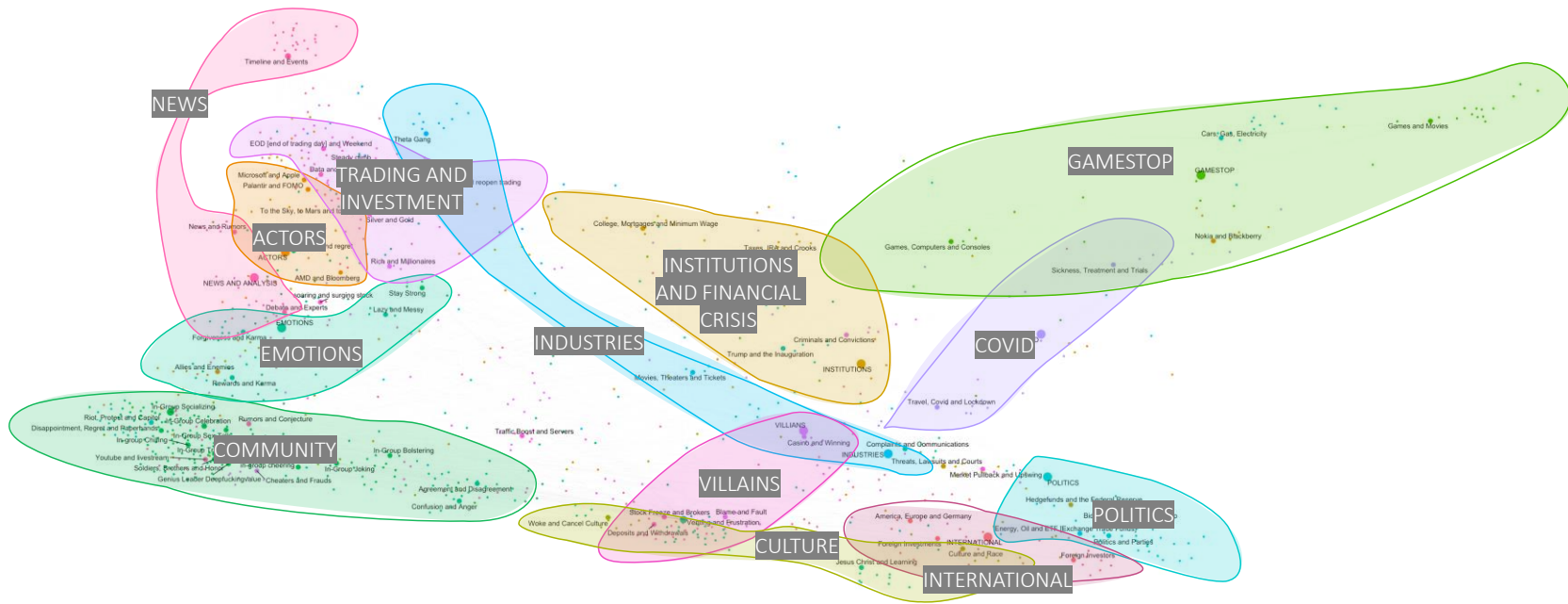
Figure 2: *Model of the WSB Flash movement*