

THE EFFECTS OF SOCIAL MEDIA ON DEMOCRATIC DISCOURSE AND POLITICAL
PARTICIPATION: A CASE STUDY OF THE 2017 INDEPENDENCE REFERENDUM
IN CATALONIA

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ABSTRACT

Katherine Binder Throneburg: The Effects of Social Media on Democratic Discourse and Political Participation: A Case Study of the 2017 Catalan Independence Referendum
(Under the direction of Liesbet Hooghe)

It is a common conception that the internet's ability to be everywhere at once and educate untold numbers of people across the globe in countless languages has leveled the playing field, making it the ideal public forum for the 21st century. Social networking sites (SNSs), in particular, have changed how we communicate with others and stay informed. This study analyzes through a psychological frame how social media networks, especially Twitter and Facebook, weaken deliberative democratic discourse by exacerbating group fragmentation and polarization, creating echo chambers and information cascades, and triggering social and cognitive biases. This work also includes a case study on the social media and communications landscape leading up to the 2017 referendum for Catalan independence. Although media sources and social networks in Spain were divided ideologically by their stances on independence, individuals appeared willing to cross party lines to engage in political debate online.

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Chapter 1: Introduction

It is easy to argue that the internet's ability to be everywhere at once and educate untold numbers of people across the globe in countless languages has leveled the playing field, making it the ideal public forum for the 21st century. Hailed as a great equalizer, the internet is capable of connecting people to places, ideas, languages, cultures, and belief systems they never would have otherwise encountered. Social networking sites (SNSs), in particular, have changed how we communicate with our families and peers, stay updated on the news, find employment, form opinions, fall in love, and govern. There has been no technological invention in history that has so dramatically changed how we structure our lives and function on a day-to-day basis as much as the internet has.

As one court explained over two decades ago, “[i]t is no exaggeration to conclude that the internet has achieved, and continues to achieve, the most participatory marketplace of mass speech that this country – and indeed the world – has yet seen” (American Civil Liberties Union v. Reno, 1996). The internet, thought to be the public forum of the 21st century, was destined to give voices to the voiceless and promote greater participation in the national conversation. Our nation's founding fathers, who in the Federalist Papers engaged in great epistemological debate over how to preserve a deliberative democracy in a heterogenous republic, would not have been able to fathom how irrelevant the internet has made time and physical space in engaging voices from coast to coast.

While the explosion of informative material online and unparalleled levels of interconnectedness have no doubt been a boon to society in recent years, the ways in which technology companies, information scientists, marketers, and users themselves are organizing the constant deluge of available information is cause for concern. Social science researchers, in confronting the realities of the Web 2.0¹ era, have rededicated themselves to studying the notion of selective exposure, a concept which finds its origin in the classic studies on attitude change (Festinger, 1957; Berelson and Steiner, 1964). As the amount of information online is simply more than the human mind can ever handle, individuals must be selective in the information they consume in order to avoid being overwhelmed.

However, social networking sites are doing a lot of the work for us. SNSs streamline the flood of online material by using complex algorithms to sort, filter, and feed their users information that has been carefully curated. No two users see the same stream of content on Twitter or Facebook; each feed is uniquely crafted based upon the user's demographics, those of their friends, listed hobbies or interests, posts they "liked," videos they watched, products they purchased, and places they physically visited. The ability of these algorithms to accurately predict what users prefer improves as users spend more time on the site, further diminishing opportunities for inadvertent, novel encounters and exposure to cross-cutting values and beliefs online. The creation of the "Daily Me" (Negroponte, 1995), a bespoke feed of communications, is antithetical to the idea of the internet as an online

¹ The era of Web 2.0, which began in 2003 or 2004, after the dot com bubble burst, is the internet as we know it today, a provider of online software services. Examples include free e-mail services, online banking and shopping, cloud storage, social media platforms, video hosting, dating and relationship services, and the like. Web 1.0 is what we colloquially refer to as the "Information Super Highway."
(<https://www.lifewire.com/what-is-web-2-0-2483694>)

marketplace of voices where users can speak and be heard. SNSs are doing us a disservice by reducing the number of unplanned encounters on the web, thus only exposing us to information that we enjoy and agree with.

This study is important to better understand how citizens relate to one another, form groups amongst themselves, and interpret the world around them in an increasingly compartmentalized communications landscape in which individuals are far less likely to be exposed to information that challenges their beliefs. In this paper, I will analyze how social media networks, specifically Twitter and Facebook, weaken deliberative democratic discourse by breeding a less trustful and less informed, but more politically and socially fragmented global citizenry.

The first section will discuss the roots of our republic and how it relies upon a well-informed citizenry engaging in deliberative democratic discourse to survive. This section will also explain the concept of public forum doctrine in the United States and how it protects freedom of expression. Lastly, it will describe how the internet is not the 21st century's version of the public forum that we hoped it would be.

The second section details the innerworkings of two major social media networks, Facebook and Twitter, and describes the general characteristics of social networking sites that set them apart from traditional media sources.

The third section of this study analyzes online political behavior through the frame of social and behavioral psychology. I reference both classical and modern psychological research to explain how today's social media landscape increases group fragmentation and polarization, creates echo chambers and information cascades, triggers social and cognitive biases, and breeds a less informed, more tribalistic citizenry.

The fourth section of this paper is a case study on the social media and communications landscape leading up to the 2017 referendum for Catalan independence, an extremely salient election that garnered much international attention. This section will discuss how although media sources and social networks in Spain were divided ideologically by their stances on independence, individuals appeared to defy the norm by crossing party lines to engage in political debate online.

This study will conclude by evaluating what we've learned thus far about social media networks and partisan behavior online, discussing policy changes that could make Facebook and Twitter more democratic, offering prescriptive measures to individuals and institutions, and suggesting further research that would fill current gaps in the literature.

Chapter 2: Representative democracy, democratic deliberation, and public forum doctrine

In the essay now titled “Federalist No. 10,” James Madison countered anti-federalist thought by arguing that a large republic, occupying a great deal of physical space and protecting a heterogeneous citizenry, could in fact succeed. Its success would not derive from direct democracy however, but rather by a system of representative democracy in which constituents of a designated area elect officials they believe will best represent their interests within a larger governing body. In 1787, Madison wrote that by disseminating public views through an elected official, a “medium of a chosen body of citizens, whose wisdom may best discern the true interest of their country” it may just happen that “the public voice, pronounced by the representatives of the people, will be more consonant to the public good than if pronounced by the people themselves, convened for the purpose” (Madison, 1787).

However, to elect an appropriate representative, it fell upon the constituents themselves to engage in active and informed debate with their peers to establish where shared opinions or cleavages existed. Alexander Hamilton, in Federalist No. 71 wrote, “[t]he republican principle demands that the *deliberate sense of the community* [emphasis added] should govern the conduct of those to whom they intrust [sic] the management of their affairs; but it does not require an unqualified complaisance to every sudden breeze of passion, or to every transient impulse which the people may receive from the arts of men, who flatter their prejudices to betray their interests” (Hamilton, 1788). It was the duty of

the elected representatives, when constituents were calling for rash or ill-conceived changes, “to withstand the temporary delusion, in order to give them time and opportunity for more cool and sedate reflection” (ibid). Regardless of the conceivability of the constituents’ ideas, this given elected official represented a community full of active citizens engaging in a healthy deliberative democracy.

There are two strains of scholarship on the impact of political deliberation on citizens’ political interest. Arendt (1968) and Habermas (1984), both defenders of deliberative democracy, assert that ordinary conversations among peers and regular exposure to political information and news media foster an active and engaged citizenry (Torcal & Maldonado, 2014). Other supporters of deliberative democracy extend Arendt’s and Habermas’ notions, suggesting that political interest can develop and expand by exposure to an array of differing political opinions and perspectives, not just via everyday news exposure and conversation with peers (Fishkin, 1995; Mutz, 2006). Following that line of reasoning, Torcal and Maldonado (2014) posit that exposure to viewpoints that are novel or divergent from one’s own could trigger the need for citizens to reformulate preexisting views to include new information or make them more coherent, which would in turn encourage them to engage in additional political discussions, further advancing their own political beliefs.

Public forum doctrine was designed to protect deliberative democracy. In the United States, it is a set of laws and regulations that protects free speech and forbids the government from censorship of information of which it disapproves. The product of numerous court cases over the past century, it guarantees that “speakers [have] access to diverse people and [ensures] in the process that each of us hears a wide range of speakers,

spanning many topics and opinions” (Sunstein, 2017). The Supreme Court ruling that serves as the foundation of public forum doctrine states

Wherever the title of streets and parks may rest, they have immemorially been held in trust for the use of the public and time out of mind, have been used for the purposes of assembly, communicating thought between citizens, and discussing public questions. Such use of the streets and public places has, from ancient times, been a part of the privileges, immunities, rights and liberties of citizens (*Hague v. Committee for Industrial Organization*, 1939).

This ruling requires governing bodies to allow speakers, no matter their beliefs or background, to utilize public spaces to broadcast their messages, with only “reasonable and limited” restrictions on the time, place and manner of the demonstration (Sunstein, 2017).

Sunstein stresses the importance of public forum doctrine in his recent book on democracy in the era of social media. In the text, he argues that public forum doctrine guarantees three things. First, it “creates a right of general access to heterogenous citizens” (Sunstein, 2017). When speakers are guaranteed access to public spaces where individuals from a variety of backgrounds, each harboring a unique set of beliefs, may pass by, such speakers can feel confident that their messages will spread further than they would have in an insulated environment. Public forums create unplanned encounters for both speakers and listeners. The Arab Spring occurred in part by processes such as these (Kraidy & Krikorian, 2017). When individuals witnessed their fellow citizens sharing the dissent, fears, and objections that they had dared not speak themselves, it signaled to many that the united voices of hundreds, thousands, or even millions could perhaps really create change.

Secondly, Sunstein writes that public forum doctrine gives individuals the right to air grievances directly against specific people or organizations. The Supreme Court’s 1939

ruling on this matter allowed William Thomas and Concepción Picciotto, in the summer of 1981, to set up a small tent in front of the White House to protest the use and development of nuclear weapons. Though Thomas and Picciotti have since passed away, the White House Peace Vigil, as it is now called, is maintained by like-minded activists, making it the longest uninterrupted anti-war protest in U.S. history (White House Peace Vigil, 2018). The same protections granted to William and Concepción in front of the White House allow students to hold sit-ins or walk-outs at their schools, concerned citizens to call and visit the offices of their elected officials, and activists to quite literally occupy Wall Street. As Sunstein (2017) remarks, “listeners have a sharply limited power of self-insulation. If they want to live in gated communities, they might be able to do so, but the public forum will impose a strain on their efforts.”

Lastly, as a result of public forum doctrine, Sunstein contends that the probability that individuals will have unplanned encounters with a broad spectrum of people and views greatly increases. Dogwalkers, joggers, parents with strollers, sanitation workers, and commuters with briefcases in tow may all traverse the same city sidewalks each day, each taking in different information. The information may be uncomfortable, unwanted or inconvenient, such as coming across a homeless person begging for money, seeing graphic images of unborn fetuses on picket signs of pro-life activists, or having to take a detour to work because protestors are marching the streets that make up the shortest route to the office. However, with each encounter, individuals are able to witness the issues that their fellow citizens prioritize.

Public forum doctrine succeeds in protecting and promoting freedom of expression because the physical spaces used to march, protest, speak, or disseminate information are

public – they are owned by citizens. For this reason, the internet, much of which is privately owned, cannot replicate the protections guaranteed by public forum doctrine, much to the chagrin of many early internet hopefuls.

Chapter 3: Social media

Social media are the websites, platforms, and applications that allow people to share content, browse material, and communicate online. Social media networks are a hallmark of Web 2.0, an era during which dynamic, user-driven experiences dominate the internet.

Section 3.1: Social media sites

There are numerous social media applications and networking sites including YouTube, Reddit, Pinterest, SnapChat, and WhatsApp that millions of users across the globe visit each day. However, since they have not been used to share and spread information in manners similar to the ways Twitter and Facebook have, they will not be covered in this study.

Facebook

Facebook is the most widely used social media platform among users of all ages. Founded in 2004 but made available for general use in 2006, the company's mission² is "to give people the power to build community and bring the world closer together." The site, which was initially restricted to students at Harvard, has (as of December 31, 2017) 2.13 billion monthly and 1.4 billion daily active users. Facebook has more than 25,000

² Facebook's 2009 mission statement claimed that the company's goal was to make the world "more open and connected". In the aftermath of the 2016 U.S. election and in recognizing the site's role in increasing political divisiveness, CEO Mark Zuckerberg recognized a need to refocus the organization's intentions, hence the updated tagline (Constine, 2017).

employees working out of 13 U.S. and 42 international offices (Company Information, 2018).

The site is now much more than a simple way to keep in touch with friends and family. Facebook has added a standalone messaging application, an online marketplace for users to buy and sell goods and services, and platforms for fundraising, to mention a few. Facebook has acquired and merged 66 other businesses into their enterprise including WhatsApp, Instagram, Oculus VR, and other companies that provide services such as travel recommendations, mobile advertising, group messaging, facial recognition, social gifting, speech translation, and fitness tracking (List of Mergers and Acquisitions by Facebook, 2018).

In a 2017 survey, over 60 percent of online marketers indicated that Facebook was their most valuable social media platform for advertising, a seven percent increase over the previous year. As of April 2017, over five million businesses were using paid Facebook ads to reach their target audiences. In the first quarter of 2017, Facebook earned \$7.86 billion in advertising revenue which marked a 51 percent increase over the Q1 reporting in 2016 (Wilson, 2017).

In response to public outcry after more than 3,000 unique Facebook ads shown in the weeks and months leading up to the 2016 presidential election were linked to Russia (Frier, 2017), the company has become increasingly transparent about how paid advertisements reach users.

The system decides what ads to show in multiple ways. The primary way Facebook does this is by analyzing each user's activity on their "family" of Facebook apps and services. This includes pages that users and their friends like, information listed in each

user's Facebook and Instagram profiles, and places users check in via the Facebook app. Facebook can also target ads to its users by adding information shared with third-party businesses to a customer list; this list will link identifying information to one's Facebook profile. Ways that one's information may be added to the customer list include making purchases at retail stores, supplying information to data providers, and by joining loyalty programs, such as a discount "club card" at a local supermarket. Other online activity can influence Facebook's ad targeting algorithms. Businesses can choose to utilize Facebook pixels³ to track and advertise to users who have visited their webpages, downloaded their mobile apps, or who simply added products to their shopping carts. Lastly, advertisers can choose to show ads to people in or near a particular geographic area. Facebook claims it gets information from when its users connect to the internet (via IP address on their tablets, computers and phones), when its users are on their smartphones (via GPS and location services), and data listed in individual's Facebook and Instagram profiles.

This information, combined with each user's interests in such categories as business and industry, news and entertainment, travel, places and events, hobbies and activities, and people, influences Facebook's advertising algorithm.

Twitter

Twitter is a social networking site that was launched in July of 2006. The site boasts an astonishing 330 million active monthly users as of Fall 2017, 67 million of whom are located in the United States (United States Senate Committee on the Judiciary,

³ A Facebook pixel is a "piece of website code advertisers install that lets them measure, optimize, and build audiences for ad campaigns" (Facebook Business, 2018).

Subcommittee on Crime and Terrorism, 2017). Twitter claims its goal is to “give everyone the power to create and share information instantly, without barriers.” Its founders created the site because they “believe in free expression and think every voice has the power to impact the world” (Twitter, 2017). Twitter is an incredibly powerful tool because it links many social media platforms together, and information can be re-posted by others with the single click of a button.

The way Twitter works is quite simple. Each user must have a unique username, known as a handle. Once a user creates his or her unique Twitter handle, the next step is to follow other accounts. Twitter will provide a list of suggested accounts to follow based on one’s age, language preference, and location. The suggestions become more personalized as the algorithms adapt to the user’s preferences and the preferences of his or her friends, family, neighbors, and colleagues.

Tweeting is simple and intuitive. Users compose and post messages of up to 280 characters (the limit was 140 until November 7th, 2017). Each tweet can also contain up to four photos, a GIF, or a video. The attachments do not use any of the allotted 280 characters, so Twitter users can post images of text to convey much longer messages.

If the account is unprotected (i.e. the user has not made the account’s content private such that the information can be shared publicly), its tweets can be “retweeted.” This function, introduced around 2009, is known as a native retweet. It will repost a tweet written by another user on one’s own Twitter account. The content of the tweet is not altered in any way; rather, it is simply replicated on another account. This is a great function if a user wants to indicate full endorsement for the content of the message one is

retweeting. The native retweet is also a powerful tool if the identifiability or reputability of the retweeted account is greater than that of one's own.

To stimulate dialogue among one's followers or to respond to another user's tweet, individuals can "Quote Tweet" by retweeting another user's message and adding their own commentary. Quoting a retweet is a useful way to involve one's Twitter audience, to publicly refute a stated fact or opinion, or highlight the importance of the message's content that is being retweeted. Users can then reply to that tweet or retweet that message and add their own thoughts.

Twitter also can be a useful platform to search for information. One popular way is to search by hashtag. A hashtag is formed by putting the pound or hashtag (#) symbol in front of an identifying keyword or phrase that users talking about a certain topic use to categorize messages and make them searchable. Good hashtags are intuitive, easy to remember, easy to spell, and quickly identifiable. Facebook, Instagram, Tumblr, Google+, and Pinterest have all adopted the hashtag to make content searchable and linkable across social media platforms.

Trends are another way to search Twitter. The site claims that trending topics "by an algorithm and, by default, are tailored for you based on who you follow, your interests, and your location. This algorithm identifies topics that are popular now, rather than topics that have been popular for a while or on a daily basis, to help you discover the hottest emerging topics of discussion on Twitter" (Twitter Trending FAQ's, 2017). Users can follow trends that are not individually tailored to them by adjusting their settings to follow trends by location.

When conducting any search on Twitter, whether it be by hashtag, username, keyword, or trending topic, users can filter their results by clicking one of the filter tabs labeled Top, Latest, People, Photos, Videos, News, or Broadcasts. Results can further be sorted by using search filters. These allow users to read posts from anyone with a public account, from people they follow, from any location, or from Twitter users near them. Additionally, posts can be filtered by language. Advanced searches let users filter posts even further by date, location, keyword, exact phrase, username, or individual.

Blocking is a function that helps users control how they interact with other accounts on the site. Twitter users can block certain accounts from following them and from seeing content that they post, retweet, or comment on. Blocked users are also unable to send direct messages to those who have blocked them. Blocking an account that follows you immediately causes you to unfollow their account as well. Muting allows users to remove content from their Twitter feeds from specified accounts without unfollowing or blocking those accounts. Muted accounts can be unmuted at any time. Advanced muting options allow users to hide posts that contain certain words, phrases, usernames, emojis, or hashtags.

Twitter has created a set of rules to govern the hundreds of millions of people who use the social media platform daily. The site claims its rules “incorporate the latest trends in online behavior, consider different cultural and social contexts, and help set expectations on what’s allowed on the platform” (Twitter, 2017). There are rules for abuse, intimate media, hateful conduct, violence, impersonation, spam, suicide or self-harm, graphic violence, adult content, and hateful imagery as well as for the disclosure of private information.

On December 18, 2017, Twitter began to enforce updated policies on hateful conduct and violence in response to public outcry in recent years as voices promoting hate speech, xenophobia, anti-Islamism, anti-Semitism, and ultra-nationalism (to mention a few) have become stronger. The revised policy not only bans hateful words that promote violence against, threaten, or harass others based on gender, race, religion, sexual identity and the like, it also bans the use of hateful images and display names.

Twitter's violence policy also was revamped in December, 2017. The new violence policy reads that users "may not make specific threats of violence or wish for the serious physical harm, death, or disease of an individual or group of people. This includes but is not limited to threatening or promoting terrorism. Users also may not affiliate with organizations that - whether by their own statements or activity both on and off the platform - use or promote violence against civilians to further their causes" (Twitter, 2017).

Twitter has reserved the right to prevent specific content from becoming a trending topic. This information includes content that violates the Twitter rules or attempts to manipulate trends. Trending topics that include profanity or adult/graphic references may be suppressed as well as those that "[i]ncite hate on the basis of race, ethnicity, national origin, sexual orientation, gender, gender identity, religious affiliation, age, disability, or disease" (Twitter Trending FAQ's, 2017). However, the site also claims that it may let topics continue to trend after considering the newsworthiness of the content or whether sharing the information (that may potentially violate Twitter rules) is in the public interest.

There are several Twitter-specific issues and features that make the site apt for misuse and prone to creating a one-sided experience for its users. These include the ability

to mute and hijack hashtags. Also, because the site is resistant to monitoring, disembodied, and not centralized, trolls, bad actors, and bots can exert influence on users.

Muting specific words, phrases, users, and hashtags from one's Twitter timeline literally silences the opinions of others to create a better user experience. It is not hyperbole to state that many users physically feel less stressed when they block phrases such as North Korea, Trump, Russia, Tax Reform, Climate Change, ISIS, and the like (Krieger, 2017).

Active users or trolls can "hijack hashtags" by using a hashtag already in use to spread content unrelated to the topic. The content is typically misleading, false, inflammatory, or spam. By using a popular hashtag, bad actors can insert damaging or distracting information into the conversation. It is nearly impossible to stop individuals from hijacking hashtags as the conversation around the hashtag is created organically and not monitored or regulated by Twitter administrators in real time. For example, a spam account could hijack the hashtag #DCsnow to advertise information about diet pills or a neo-Nazi could use the hashtag to spout hate to users who just wanted to see pictures of how big the snowmen were in the county next door.

Section 3.2: What makes social networking sites unique?

Extensive research has examined the ways in which social media networks are different from traditional media networks, which I summarize below under eight headings. The characteristics that make social media platforms such powerful tools are as follows:

1. Decentralization and disembodiment;
2. Anonymity, "pseudonymity", and automation;
3. Resistance to monitoring;

4. Low barrier to entry and participation;
5. Springboard for non-mainstream actors, parties, and beliefs;
6. Overabundance of information;
7. Fertile environment for echo chambers, polarization and extremist beliefs; and
8. Lack of adherence to established journalistic ethics.

These attributes and how they manifest within social media networks will be described in the sections below.

Decentralization and disembodiment

The decentralized and disembodied nature of social media eliminates the need for physical proximity and facilitates self-disclosure. The internet overcomes obstacles of geography and space and reaches individuals who would not otherwise have had physical contact with a given set of messaging (von Behr, Reding, Edwards, & Gribbon, 2013). In a 2006 study on the dynamics of online dating, researchers Lawson and Leck were quick to observe that even the shyest of participants felt comfortable saying things online that they would not have said in person. Others felt they benefitted from online communication because they could get to know others on an emotional level before judging their physical appearances. Other researchers on this topic argued that “although e-dating lacks intimacy, our informants do tend to be more candid more rapidly with those they have just met on e-dating sites compared to people they have just met in person” (Close & Zinkhan, 2004). In fact, over a decade ago, for the reasons listed above, psychologists began using online dating as a therapeutic technique to build confidence among their patients with intense social anxiety (Stevens & Morris, 2007).

Of course, the internet facilitates open conversation among all types of people seeking meaningful online relationships, not just those looking for love. There are blogs

and forums for political activists, LGBTQ individuals, people with disabilities, new parents, Border Collie owners, vegans, and avid knitters alike. All of these online communities cross the boundaries of time and space to connect like-minded individuals.

Anonymity, "pseudonymity," and automation

Anonymity (or "pseudonymity") is a crucial element for those who wish to keep their private lives off of the web or, more nefariously, influence others clandestinely on the internet. The promise of anonymity on social media platforms such as Twitter likely comes as a relief to many individuals who espouse beliefs that are unpopular within their families or their social circles. Writing online anonymously or under a pseudonym gives users a chance to express their emotions and ideals more readily than in real life settings (Weimann, 2016; Sageman, 2004). Creating an anonymous account allows users to feel safe in their "digital skins" while exploring lines of thought that are different from the ones they would typically be exposed to through traditional media or their normal social interactions.

However, wearing an anonymous or ("pseudonymous") digital skin is not necessarily an innocuous act. By using a fictitious identity or by concealing it altogether, the everyday internet user is unable to accurately contextualize the content they are consuming because the information that would serve to anchor a tweet to an age group, gender, social class, or physical location is absent.

Additionally, users can keep the locations from which they post anonymous by turning off the location services features on their computers or mobile devices. Only by tracing Internet Protocol (IP) addresses can the locations of the devices' posts be determined (Weimann, 2016).

Resistance to monitoring

The internet is highly resistant to monitoring. Klausen (2015) argues, “the widespread use of lateral integration across multiple file sharing platforms builds redundancy through the manifold postings of the same document and [creates] resilience against disruption and suppression by governments and internet service providers.” When information is shared and re-shared tens, hundreds, or thousands of times on the internet, it is difficult to track its original source, which can be a blessing or a curse. When a message on the web seems to have no original source and appears as if it were generated extemporaneously across the web by countless users, it gives the message a sense of authenticity or egalitarianism. However, when the message is not benign or spreads damaging or false information, the untruth becomes that much harder to eliminate from the discourse. Bad actors such as terrorist recruiters, online trolls, bots and bot-nets, and government propaganda arms capitalize upon this attribute of the internet daily.

Low barrier to entry and participation

Social media sites have very low barriers to entry and do not create much cost - time-wise or financially - for their users. Most sites are free and require little more than a valid e-mail address to register. Twitter’s barrier to entry is virtually nonexistent, as those who are interested in looking at information on Twitter do not even need to create an account in order to do so.

Once on these social media platforms, the costs of participating are low (Balcells & Padró-Solanet, 2016). Uploading a tweet or Facebook post is significantly less demanding than writing an opinion editorial for a printed publication, attending a town hall, or calling in to a radio or television program to express oneself politically.

Springboard for non-mainstream actors, parties, and beliefs

Social media platforms are attractive options to individuals or groups whose opinions and beliefs are not represented in mainstream media. For example, YouTube made mainstream media irrelevant to terrorists; instead of needing cable television to publicize their taped messages, they could simply upload their video content themselves (Atwan, 2015). Today, it can be used to post propaganda that aims to incite, inspire, and recruit as well as to report action from the battlefield. The content of YouTube videos varies dramatically. There are videos of jihadis playing with kittens and there are videos of foreign fighters beheading captured Americans. In the summer of 2015, online monitoring staff at YouTube were taking down two or three videos of beheadings each week (Kaleem 2015). Additionally, the majority of videos posted on YouTube have several options for subtitles, making them even more accessible to potential jihadis who may not understand the language of the speaker.

Political scientists Carol Galais and Ana Sofia Cardenal have found that digital media use benefits small parties (2017). They posit that “lower transaction costs, network (horizontal) effects, and increasing media fragmentation associated with digital technologies might increase the relative advantage of small parties online, improving their electoral chances by managing them to mobilize supporters and to attract new voters online.” Their research indicates that the more an individual uses the internet leading up to an election, the more he will doubt his vote choice, thus increasing his chance to vote for a small party.

Overabundance of information

A 2000 study by Drs. Sheena Iyengar and Mark Lepper tested the effects of selection size on individuals' satisfaction with their choices. The researchers found that participants reported greater satisfaction with their purchases (in this case, gourmet jams and chocolates) when there were fewer options (six) versus when they had to choose from a more extensive array of options four to five times that size. Not only did the larger selection size create information overload, which made the decision-making process more costly, it also made them less happy with the item they finally chose.

Extending this theory to the media, it would logically follow that, by supplying consumers with a much greater selection size of opinions, "truths," and facts, users would have a more difficult time in reaching a particular set of views that makes them happy and would be less pleased with their decision upon having made it.

Fertile environment for echo chambers, polarization, and extremist beliefs

Von Behr et al. (2013) describe the internet as an echo chamber, "a place where individuals find their ideas supported and echoed by other like-minded individuals." Social media users who adhere to a certain set of beliefs can find their thoughts replicated online and live within a vacuum with people espousing the same rhetoric.

Lack of adherence to established journalistic ethics

News disseminated on social networking sites does not necessarily adhere to long established journalistic standards. Napoli writes, "[t]he profession of journalism (regardless of the technology via which news is disseminated) traditionally has been infused with an ethical obligation to serve the public good" (Iggers, 1999; Barkin, 2002). Industry groups such as the American Society of Newspaper Editors, the Society of

Professional Journalists, and the Radio and Television News Directors Association have all established and upheld “self-designed and -imposed behavioral codes that typically embody the public interest concept to varying degrees” (Napoli, 2015). On Facebook and Twitter, each user is his own author, editor, and publisher, which can lead to the distribution of “news” content that is biased, subjective, or of questionable veracity.

In sum, the **decentralized, disembodied, and anonymous** nature of the internet makes the dissemination of information, both accurate and false, **resistant to monitoring**. Additionally, the **low barrier to entry** reduces the cost of participation allowing the platform to serve as a simple **springboard for non-mainstream actors and beliefs**. The myriad opinions and sets of “facts” on social media can trigger psychological stress known as the **burden of choice**, which can make decision-making more costly and individuals less content with those decisions. The ways in which social media platforms and social media users themselves formulate and filter the types of content they are exposed to can lead to **fertile environments for the creation of echo chambers, polarization, and extremist beliefs**. Lastly, news shared over the internet is not held to the same **journalistic standards** as is traditional media, which can lead to the spread of misinformation and disinformation.

Chapter 4. Political deliberation, psychology, and the partisan brain

This section will explore the impact of curated social media and communications networks on how individuals think, process new information, build their personal identities, and form groups. First, I will provide a brief review of current research on political deliberation, temperamental differences among partisans, mass media effects and political learning. Next, to explain how custom news feeds create in- and out- groups and increase polarization, the topics of selective exposure, active information avoidance, motivated reasoning, and confirmation bias will be discussed. Third, the characteristics of polarized groups and intergroup dynamics will be covered. Lastly, this section will detail how users, once having their self-identities and beliefs activated by participation in a polarized social networking environment, create echo chambers and generate or amplify information cascades.

Section 4.1: Current research

Political deliberation is thought to occur in two ways: through consistent and heterogenous interpersonal conversation (Mutz, 2006; Fishkin, 2009; Toka, 2010) and by exposure to diverse media information (Page, 1996). Meanwhile, the impact of the two mechanisms above on political interest appears to be partial or inconclusive (Torcal and Maldonado, 2014).

While political deliberation is a net positive in society, engaging in conversation with individuals who hold opinions contrary to one's own can negatively impact citizens' political interest. It appears that the interpersonal aspect of disagreement is what creates

personal cost because the same negative emotions are not triggered when citizens are exposed to cross-cutting media (Mutz, 2002). Torcal and Maldonado (2014) find that political interest is particularly dampened by in-person discussions in which participants disagree; the effect is particularly strong among “citizens with less political knowledge and strong partisan and social ties.” An increasing number of citizens may lose interest in politics as the political divide widens in the United States; research has shown that partisan animus over the past 50 years has risen dramatically, to the point that today “implicit partisan prejudice exceeds implicit racial prejudice” (Iyengar, Sood, & Lelkes, 2012).

Researchers have found distinct differences between the temperaments, beliefs, and value sets of conservatives and liberals in the United States. Liberals trust more in science, have an increased desire to change the status quo, are more uncomfortable with societal inequality, and have the tendency to seek out novel information more frequently than their conservative peers (Tullett, Hart, Feinberg, Fetterman, & Gottlieb, 2016). Conservatives are far more dogmatic (Rokeach, 1960) and believe more heavily in the “just world” hypothesis (or fallacy) that the world is fair and people get what they deserve (Sidanius & Pratto, 2001), thereby accepting inequality as a constant (Jost, Kruglanski, Glaser, & Sulloway, 2003). Conservatives also show disinterest in novel information (Tullett, Hart, Feinberg, Fetterman, & Gottlieb, 2016), are less trusting in the scientific community (Gauchat, 2012), and demonstrate a reduced openness to experience (Peterson, Smirles, & Wentworth, 1997).

Research shows that those who possess extreme views, either very liberal or very conservative, develop fixed political attitudes which can define that individual’s sense of self (Ajzen, 2001). Once that attitude is crystallized, these individuals become less likely to

consume cross-cutting (counter-attitudinal) information (Taber & Lodge, 2006) and are more likely to use customizability features on social media networks to avoid exposure to information that counters their opinions and causes cognitive dissonance.

Exposure to mass media is known to encourage political involvement, political trust, and civic-mindedness (Searing et al., 2007; Moy & Hussain, 2013), but the sheer amount of information available in today's communications environment may force individuals to rely upon various technologies to help them be more selective than they've ever had to be in the past (Kalyanaraman & Sundar, 2006). In 2000, researchers Iyengar and Lepper found that, contrary to conclusions drawn in previous studies, having too many choices can be demotivating and cause individuals to feel less confident and satisfied in the decisions they have made, perhaps leading to decreased political involvement and satisfaction.

Lastly, social media's ability to induce learning and educate its users is also debated in the academic community. Bode (2016) writes, "in high-control media environments (satellite televisions, personalized websites, RSS feeds), users can control the information to which they are exposed almost entirely, resulting in a tendency to engage in active learning. In low-control environments, on the other hand (1950s television, broadcast commercials), users have very little control over the information to which they are exposed, and thus tend to be exposed to a much greater variety of information." Scholars in the 1960s and 1970s recognized that the "low-control" environment of early television could allow for passive learning to occur as information was absorbed incidentally. Passive learning - learning without motivation - is characteristically "effortless, responsive to animated stimuli, amenable to artificial aid to relaxation, and characterized by an absence of resistance to what is learned" (Krugman & Hartley, 1970). Some scholars believe that

social media sites, much like early television programs, provide consumers with an environment in which to absorb information incidental to that which they originally sought out when turning on the TV or logging on to Twitter. Bode asserts that “passive learning results in greater and more diverse learning gains than active learning, because users are more accepting of the information to which they are exposed” (2016). If this is the case, social media has the potential to reduce the cost of staying politically informed for less attentive or interested citizens.

Section 4.2: Political psychology online

Today, more information exists on the web than could ever be consumed in a lifetime. In order to create some order online while also exposing internet users to the most relevant information for them personally, social media sites such as Twitter and Facebook use incredibly complex algorithms that utilize Deep Learning, Natural Language Processing, sentiment analysis, neural networks, and multipart, extremely intricate modeling programs. The specifics of these algorithms are beyond the reach of this study but result in creating personalized Twitter timelines and Facebook feeds for users based on information perceived to be most relevant to them.

These algorithms, although useful at times, are a threat to deliberative democratic discourse. No longer are we exposed to the full range of opinions on a given topic. Rather, SNSs have opted to “enhance” our experiences by creating bespoke news feeds with information and opinions that are unlikely to cause psychological stress or cognitive dissonance.

Impacts of SNS customizability

Customizability technology allows users or information systems to “very efficiently and effectively tailor users’ information environment by enabling systematic and automatic exclusion of disliked sources, topics and opinions, and inclusion of preferred sources, topics and opinions” (Dylko, et al., 2017). Network customization can be driven by the users themselves when they manually indicate preferences in their information environment and by systems, in which software and program code is used to modify information streams (Beam, 2014). System-driven customization operates behind the scenes; information that aligns with the user’s political ideology is prioritized automatically and inconspicuously (Dylko, 2016).

Dylko et al. (2017) found that customizability of social networking sites is harmful for democratic debate. Their research indicated that “customizability technology increased exposure to pro-attitudinal information and decreased exposure to counter-attitudinal information, thus encouraging selective self-exposure.” Users of social media platforms with system-driven customizability software will likely experience significant selective exposure; even if they consider themselves to be impartial and open-minded, they won’t be aware of how lopsided the information they receive is as they aren’t exposed to the full spectrum of opinions available (Pariser, 2011). Customizability technology is observed to have a disproportionately large influence on ideologically moderate citizens; in the absence of customizability technology, moderates consumed a substantial amount of cross-cutting information (Dylko, et al., 2017).

Network effects: Selective exposure, active information avoidance, motivated reasoning, and confirmation bias

In addition to algorithms curating news feeds that align with individual users' beliefs and preferences, citizens can opt to only intake information from news sources that are not cross-cutting (i.e. do not challenge their beliefs) to avoid feeling cognitive dissonance.

Boutyline and Willer (2016) found that Twitter users place themselves in homophilous (like-minded) networks on the platform. A similar study on dialogue on Twitter found that when discussing political events including the 2012 presidential election and the 2013 government shutdown, conversations took place in echo chambers, signifying only like-minded individuals were involved. However, conversations on Twitter that were focused on current events such as the 2013 Boston Marathon bombing or the 2014 Super Bowl were held within heterogenous networks (Barberá, Jost, Nagler, Tucker, & Bonneau, 2015). It is known that selective exposure foments political polarization (Stroud, 2010).

People who are ideologically committed to their beliefs are similarly motivated to avoid information that challenges those beliefs. While previous research has shown that conservatives may be more prone to selective exposure than their liberal counterparts, a 2017 study by Frimer et al. found that both groups occupying different ends of the political spectrum tend to engage in similar selective exposure measures. The researchers found that "people on both sides [of a debate in the study] indicated that they anticipated that hearing from the other side would induce cognitive dissonance (e.g., require effort, cause frustration) and undermine a sense of shared reality with the person expressing disparate views (e.g., damage the relationship)." The authors also observed that the difference of

intensity between liberals' and conservatives' desire to remain in their particular ideological bubbles was negligible. The desire to avoid the other group's arguments was so strong that the researchers found that "the majority of people on both sides of the same-sex marriage debate willingly gave up a chance to win money to avoid hearing from the other side" (Frimer, Sitka, & Motyl, 2017).

Festinger's personal discomfort theory aligns well with the notion that selective exposure to information can also serve as a defense mechanism against feeling threatened (Webb, Chang, & Benn, 2013). The desire to only expose oneself to information that is not cross-cutting may also have interpersonal origins. According to the theory of shared reality (Echterhoff, Higgins, & Levine, 2009), people have an innate desire to feel that they have mental synchrony with those around them. Engaging in conversation or simply meeting individuals with differing beliefs can undermine the notion of a shared reality.

Selective self-exposure can lead to active information avoidance. A 2013 study on gene testing for children of parents who carry the inherited biological markers for Huntington disease found that even though the chances of inheriting the disease were 50 percent, fewer than 10 percent of the participants chose to find out their test results (Oster, Shoulson, & Dorsey). Examples of everyday active information avoidance include not opening a bill when money is tight, not stepping on the scale after eating indulgently over the holidays, and not checking grades after a tough exam in school. Active information avoidance among investors turns out to be a savvy strategy during tumultuous days on the stock market; these "ostriches", investors who are less likely to look at their portfolios on days that the stock market goes down, do better financially because by avoiding looking at the losses, they are not attempted to sell their stocks (Karlsson, Loewenstein, & Seppi,

2009). However, in the political marketplace of ideas, ostrich-like behavior is very dangerous. When individuals don't even begin to think they could be wrong because they don't see rational oppositions to their views, or even the possibility of there being an opposition, the situation becomes even more troubling

When citizens do see information that reflects negatively on their preferred political candidate or party platform, motivated reasoning may determine the degree to which new information is correctly registered and their assessments are adequately updated. Motivated reasoning “describes an interaction between existing affective evaluations and new information,” and it can lead to less accurate updating (Redlawsk, Civettini, & Emmerson, 2010). Redlawsk and his colleagues (2010) found that voters are capable of ignoring negative information about candidates whom they held in a positive light. In some cases, voters became even more positive about their candidate upon hearing such information. The researchers describe that:

In the context of a campaign, a voter learning something negative about a favorite candidate might first doubt the validity of the information, spend time reviewing and trying to comprehend it, and in the process create a list of relevant thoughts, most of which argue that the information is either false or unimportant. This thought listing, in refuting the new piece of information, could call to mind many of the reasons for the initial support of the candidate and leave a better feeling about the candidate even after encountering negative information.

It is also possible that this same process occurs with new information about a disliked candidate or party; motivated reasoners may be unwilling to accurately update their evaluations. In their study, only the evaluations from the groups of participants who encountered 40 percent and 80 percent of information incongruent with their initial

positive assessment of a candidate declined over time (Redlawsk, Civettini, & Emmerson, 2010).

Confirmation bias is another type of motivated reasoning. Confirmation bias occurs when users are selectively exposed to information that confirms their beliefs, those users interpret the information in front of them in a way that reaffirms their prior beliefs, and remember that information which confirms their beliefs (Frimer, Sitka, & Motyl, 2017). People are motivated to avoid information that does not conform with their preexisting beliefs because it can cause personal discomfort and cognitive dissonance, as discussed above.

Polarization

Polarization occurs when people or groups of people who do not agree on certain facts, opinions, religious beliefs, political tenets (or any other divisive factor) self-isolate and create in- and out-groups based on these factors. Sunstein refers to these groups as “information cocoons” (2017). Society becomes fragmented when individuals self-sort into these cocoons, in which people are not exposed to unanticipated information, falsehoods go unchecked, and thoughtful deliberation is not encouraged. Within these groups, political curiosity is quashed. In fact, according to the ideological migration hypothesis (Motyl, Iyer, Oishi, Trawalter, & Nosek, 2014), people who believe their ideology to be out of sync with those living around them may seek out new communities that better align with their ideological preferences.

Three main explanations for group polarization have emerged, and there exists an overwhelming amount of evidence behind each one. Sunstein (2017) posits there are three

primary reasons groups polarize: persuasive arguments and information; reputational considerations; and confidence, extremism and corroboration.

Generally speaking, one's position on an issue is a function of what information seems convincing. In large part, the most persuasive argument will be determined by its reasonableness and the number of arguments in its support. On balance, this is good. However, if a group is already leaning in one direction, there will be substantially more arguments supporting that position and disproportionately fewer voices in opposition. As a result, the group will shift to more closely align with the views of the majority's initial inclination (Sunstein, 2017).

Within groups, people want to be considered favorably by their peers. As a result, individuals tend to adjust their positions on a given issue to match the dominant position in the group. When people care about their reputations, what they do and what they say in a group will be affected. Interestingly, discussion is not necessary to induce this effect; group polarization occurs merely on the basis of exposure to the views of others (ibid).

On many issues, people are not sure of what they believe or think, so they moderate their views and trend towards the center of the spectrum. Only as individuals gain confidence in their beliefs do they become extreme. Being around like-minded people who share similar beliefs can increase confidence. Sunstein writes, "likeminded people, having deliberated with one another, become more convinced that they are right – and hence more extreme" (2017).

Not only have people become more polarized, but so have their news sources. Martin and Yurukoglu (2014) of Stanford University analyzed whether voting behavior is really influenced by what was watched on cable news. The researchers tested the effects of

watching MSNBC (traditionally left-leaning) and Fox News (traditionally right-leaning) on voting. Sunstein (2017) described their findings below.

Fox and MSNBC have both grown more ideologically defined, and Republicans and Democrats alike are aware of that. In 2000 and 2004, a typical Democrat was no more likely than a typical Republican to watch MSNBC. By 2008, a typical Democrat was 20 percentage points more likely to watch MSNBC. In 2004, a Republican was only 11 points more likely than a Democrat to watch Fox. By 2008, the gap had widened to more than 30 points.

Fox and MSNBC don't only attract like-minded viewers, but they also widen partisan divide by increasing polarization and have real impacts at the polls.

Section 4.3: Group dynamics, echo chambers, and information cascades

Group dynamics

There is abundant research to support the fact that, once these groups are created, the most extreme voices in the group tend to create the group's dominant position. The individuals do not reason and occupy a center-ground. Rather, the voices of reason, the ones that are most in need of being heard, are drowned out. Sunstein writes "[w]hen people deliberate together, they often give disproportionate weight to 'common knowledge' – information they all share in advance. By contrast, they frequently give too little weight to unshared information – information that is held by one or only a few people" (2017). The unshared information could stand in contrast to the loudest voices and perhaps lead to more moderate positions, but it never makes it into the conversation. People underestimate the polarizing effect of group discussion on forming beliefs (Keating, Van Boven, & Judd, 2016).

When two partisans, or groups of partisans, at opposite ends of the ideological spectrum attempt to engage with one another, the effects of a social perception bias called naïve realism can take place. Naïve realism “speaks to the individual’s unshakable conviction that he or she is somehow privy to an invariant, knowable objective reality – a reality that others will also perceive faithfully, provided that they are reasonable and rational, a reality that others are apt to misperceive only to the extent that they (in contrast to oneself) view the world through a prism of self-interest, ideological bias, or personal perversity” (Robinson, Keltner, Ward, & Ross, 1995). People do not fully understand the subjectivity of their own construction of reality and do not take into account the subjective construals of others when assessing their behavior. Participants in Robinson et al.’s study found that both conservatives and liberals stated that those in the opposing camp had been deeply influenced by ideology and relatively uninfluenced by evidence.

Echo chambers

Echo chambers occur once polarized groups or positions have formed. On Twitter, users may choose to operate within echo chambers by only following accounts of individuals and media sources that align with their political leanings out of comfort. Sharing common information and opinions with a group of people and avoiding exposure to contradicting information can also foster a sense of shared reality which researchers Echterhoff, Higgins and Levine (2009) say is critical to satisfy the fundamental need to have mental synchrony with others. Discussion among individuals operating within echo chambers can provide fertile ground for breeding overconfidence, disdain for others, or even violence.

Information cascades

Information cascades, known as cyber cascades online, are “processes of information exchange in which a certain or supposed fact or point of view becomes widespread, simply because so many people seem to believe it” (Sunstein, 2017). When accurate messages are conveyed, cyber cascades are an extremely efficient way to disseminate information, because they can blaze like wildfire throughout social networks. The danger occurs when falsehoods are promulgated throughout these cascades because it is nearly impossible to root them out. Twitter’s system of tweets and retweets seems to be designed to spread information cascades as quickly as possible, which can be dangerous when fake news is being shared faster than the information debunking it.

Chapter 5: Partisan media, social networking, and the 2017 Catalan independence referendum

It is unlikely that anyone could have predicted how drastically social media could influence an election until eighteen months ago with the unforeseen election of Donald Trump in the 2016 U.S. presidential election. President Trump was elected during a maelstrom of anxiety over effects of the dark side of new media technology and foreign intervention in a presidential campaign. Unfortunately, the confluence of false news stories, the abundance of “alternative facts,” the malignant influence of foreign actors, and the polarizing effect of social network homophily on partisanship is likely to become the norm in major elections across the globe.

Many of the factors that made the media environment around the 2016 presidential campaign in the United States so heated and polarizing were replicated in the 2017 campaign for independence in Catalonia. As in the United States, news sources in Catalonia are divided ideologically. However, the cleavage in Catalonia typically occurs around the issue of identity – either Spanish or Catalan. As a result, networks of similarly identifying voices are at work on both sides of the independence debate.

I will first describe the Catalan crisis and the results and repercussions of the October 1st referendum. Next, I will provide regional demographics before discussing the partisan media system in Catalonia. Lastly, I will show that although politically like-minded users did self-sort on social media, those individuals were in fact willing to cross the

ideological divide to discuss the issue of independence with people who did not share their same opinions.

Section 5.1: The Catalan Crisis Explained

The Kingdom of Spain contains three historical nations: Galicia, Basque Country, and Catalonia. Each nation has endured its own tensions against the central state, although the violence carried out by the Basque extremist separatist group ETA is most well-recognized. These regions, each with their own languages and cultural identities, were brutally suppressed under Dictator Francisco Franco, who led Spain from the end of the Spanish Civil War in 1939 until his death in 1975.

With his death, too perished his authoritarian regime. The country quickly began democratizing; in 1977 the first democratic elections were held and the center-right party, *Unión de Centro Democrático* (Union of the Democratic Center, or UCD) took power. Under UCD, during the following year, the Spanish Constitution, which included universal social rights, was approved (Cabrero, 2016). Spain's Constitution of 1978, of which 90% of Catalan voters approved, included language that gave wide autonomy to the regions (M.R., 2017). However, it also included text that affirmed "the indissoluble unity of the Spanish nation," signifying that only changes to the constitution could alter the status of any given region (The Spanish Constitution). Since transitioning to a democracy, the country has continued to test "asymmetry as a way to reconcile the demands for autonomy of Catalonia, the Basque Country, and Galicia, with a commitment to the rest of the country to strengthen the central state" (Agranoff, 1996).

The seeds of the current Catalan crisis were planted over a decade ago. In 2006, the Catalan Parliament unilaterally passed legislation called the Statute of Autonomy of

Catalonia which was unilaterally decided upon by the region's parliament and granted the region even greater powers, boosting its financial dominance, and even describing it the territory as a "nation." Soon after, the law was approved by the Spanish Parliament, which was at the time dominated by the Socialist party, and later ratified in a referendum in Catalonia (Calamur, 2017).

The Popular Party, the center-right party which has been in power since 2011, almost immediately went to work to challenge the statute before the Constitutional Court. Spain's highest court spent over four years deliberating the constitutionality of the provisions included in the 2006 statute; in the end, the court only struck down 14 and reduced the scope of 27 of the 223 articles included in the original document. Additionally, the 2010 decision ruled out plans to prioritize the Catalan language over Spanish in the region, declared illegal regional competence over courts and judges, and said the interpretation to references of Catalonia as a nation would have no legal bearing (Calamur, 2017).

The Court's ruling triggered an immediate response in Catalonia. The following day, over a million people marched in Barcelona to protest the changes to the 2006 statute (BBC News, 2010). From that moment on, each year protests would be held on September 11th, which is the National Day of Catalonia, so Catalans could demonstrate to "claim their citizenship of this Autonomous Community and to demand at least a new revised autonomy or, even, independence" (Jiménez, 2014). In 2012, more than 1.5 million people took to the streets in Barcelona, united under the phrase "Catalonia, new state of Europe" (Micó & Carbonell, 2017). The mobilization of Catalans that day served as the trigger for what is now called the Catalan Process – the process to gain independence.

The process came to a head on October 1st, 2017 when Catalans across the region voted in a referendum on independence. Spanish constitutional courts declared the referendum illegal months prior; the results would be non-binding. 90 percent of the Catalans who voted on October 1st voted for independence. The election only received a 43 percent turn out as those who supported unity with Spain boycotted the vote. Organizers say that roughly 770,000 votes were lost due to disruptions at polling stations by Spanish police raids (Russell, Slawson, & Greenfield, 2017).

The Catalan Department of Health reported that 761 individuals were injured during the unrest, including 10 police officers. Videos depicted the heavy-handedness of the Spanish police – Spanish officers were shown hitting voters holding up their hands with batons, dragging voters from polling stations by their hair, and attacking Catalan firefighters (Russell, Slawson, & Greenfield, 2017).

On October 27, 2017, it was announced that the Catalan regional parliament, led by Catalan President Carles Puigdemont, had voted to declare independence from Spain. That same day in Madrid, the Spanish Senate voted in favor of measures that would allow the central government to impose direct rule over Catalonia by invoking Article 155 of the Spanish constitution (BBC News, 2017). Direct rule was imposed and new parliamentary elections were held in Catalonia on December 21, 2017. With separatists again in the majority, no clear leader has emerged and the region continues to be ruled by Madrid (de Blas, Díez, & Baquero, 2018). Adding fuel to the fire, Spain has jailed secessionist political leaders and continues to detain them without issuing charges (Jones, 2018).

Section 5.2: Regional demographics

Catalan demographics

The data derives from the third wave of survey collection for the Political Opinion Barometer run by the *Centre d'Estudis d'Opinió* (Center for Opinion Studies). The Centre is a research arm of the Catalan *Generalitat* (government), which collects opinion and other data on a quarterly basis from respondents within Catalonia.

Data collection for the third wave was conducted between October 16th and 29th, 2017. The real value of respondents to this survey was 1338, weighted to correspond with a theoretical $n=1500$. Only individuals 18 and older who were also (self-reportedly) legally qualified to vote in Catalan elections were eligible to participate in this and previous surveys.

Identity

Nearly half (49.7 percent) of the respondents identified themselves as Catalans who lived in Catalonia. 15.2 percent listed themselves as Catalans who live in Spain while 18.6 percent responded that they identify themselves as Spaniards who live in Catalonia. Only 5.3 percent self-identified as Spaniards who live in Spain, nearly half the number that did not list their identities as matching with any of the above (10.5 percent) (Centre d'Estudis d'Opinió, 2017).

Attitudes, political interest, and trust

Over a third (39.7 percent) of respondents cited that relations between Catalonia and Spain was the most important current problem within region. Combined with the 27 percent of individuals who listed dissatisfaction with politics as their most pressing issue, exactly two-thirds of respondents (66.7 percent) felt that political tensions were the

principal problem in Catalan society. Only 14 percent of those interviewed believed the political situation in Catalonia was better than it was the year before; 62.1 percent opined it was worse. However, 39.6 percent of those represented in the sample believed the political situation would improve in the coming year.

Nearly two-thirds of respondents (60.1 percent) claimed to be very or rather interested in politics. 17.8 percent were not at all interested. Meanwhile, 70 percent claimed to be very or rather informed about the political situation; only 6.4 percent claimed to not be informed at all (Centre d'Estudis d'Opinió, 2017).

Media usage in Catalonia

Television remains the most widely consumed media source. 83 percent of respondents to the survey claimed to watch television programs to stay up to date on the news. Slightly more than half (52.1 percent) of survey respondents cite the internet as a source they use to stay up to date on the political situation. Of those who use the internet, 521 individuals provided the interviewers with which internet sources they use. 24 percent of the Internet consumers (9.34 percent of internet users within the total population) listed social media networks as their primary online news source to stay informed about politics (Centre d'Estudis d'Opinió, 2017).

Section 5.3: A polarized press: Varied coverage of the Catalan Process

To analyze and interpret the role that the media has had in the Catalan Process, researchers at the Blanquerna School of Communications and International Relations at Ramon Llull University in Barcelona evaluated “more than 7,000 journalistic pieces published or broadcasted in more than 100 newspapers, magazines, television stations, radio stations, and cybernewspapers in seven different languages” (Micó & Carbonell,

2017). The researchers found that the media was not neutral in their coverage of Catalonia's campaign for independence. The media's preferred solution to the conflict in Catalonia fell into three camps: much of the national and international media favored Spain to remain as a united nation; a high percentage of media outlets within Catalonia itself preferred independence; or, the option that received the least amount of support, a new type of association based upon a federal system in Spain that would include Catalonia.

Of news or opinion pieces on the Catalan Process, 60 percent originated from within Catalonia, 36.2 percent derived from elsewhere in Spain, and 3.8 percent came from international media sources. International newspaper headlines were the most critical of the process; negative pieces appeared on 63.1 percent of the days covered in the study. Negative newspaper headlines appeared 42.5 percent of the days in the Spanish media and 30 percent in Catalan media (Micó & Carbonell, 2017).

Interestingly, the researchers also found that "international online media were the most critical (42.9%), closely followed by those of Catalonia (42.6%)" (Micó & Carbonell, 2017). Spanish online newspapers, out of all the sources evaluated, denigrated the process the most heavily.

The greatest number of opinions regarding the independence process in Catalonia was found via online media. Unsurprisingly, while Catalan media tended to favor independence, the defense of Spanish unity on Spanish media was absolute (Micó & Carbonell, 2017). Rather than a conservative/liberal divide among news sources, there was a cleavage based on Spanish or Catalan identity.

Section 5.4: Defying the norms: Evidence of deliberative political debate online

A 2016 study attempted to identify how frequently communications crossed ideological divides on Twitter in the debate over independence in Catalonia. Research on political debate on Twitter between conservatives and liberals in the United States has shown that while messages that are retweeted typically remain within echo chambers, mentions and replies to tweets more frequently penetrate ideological divides (Conover, et al., 2011); Balcells and Padró-Solanet (2016) wanted to see if this phenomenon would occur among separatists and unionists in Catalonia.

The researchers randomly selected tweets from users who followed the Catalan political party *Assemblea Nacional de Catalunya* (ANC, @assemblea on Twitter), which favored independence, *Societat Civil Catalunya* (SCC, @societatcc on Twitter), which did not favor independence, and from users who followed both (an indication of general interest in the issue). The team randomly selected tweets (specifically tweets that were replies to other tweets) from users who followed one or both of the aforementioned Twitter accounts.

Balcells and Padró-Solanet (2016) found three main differences between the unionists and separatists. First, those who shared similar political views also tended to follow thought leaders with matching ideological leanings on Twitter. Additionally, there was very little overlap in the accounts that unionists and separatists both followed; more followed accounts at the ideological extremes, demonstrating the tendency toward network homophily on social networks. The researchers found that users' following behavior was a good predictor for their positions on the independence debate.

Secondly, most of the Twitter users who were pro-independence (69 percent) were located within Catalonia and were tweeting in Catalan, the native language of the region. The language of most pro-unity tweets was Spanish (67 percent). The relationship between language, identity, and degree of support for independence was clear (Balcells & Padró-Solanet, 2016).

Lastly, pro-independence Twitter users, although they only consisted of 54 percent of the issue-related repliers, produced more interactions online than pro-unity Twitter users. Separatists produced more than two-thirds of the dialogue. This is unsurprising given that the separatists needed to be proactive given that they were the ones who had a case to make, and the unionists simply needed to react and disqualify the arguments from the other side. Additionally, many in the pro-unity camp believed the referendum to be illegal and thus engaged in political conversation unrelated to the independence vote (Balcells & Padró-Solanet, 2016).

Interestingly, researchers found evidence of a genuine effort to engage in debate across party lines. 40 percent of the conversations observed contained heterogenous interactions; Twitter users on both sides of the issue demonstrated some willingness to expose themselves to cross-cutting information by crossing party lines to talk with those on the other side of the political debate. Within the homogenous groups, most tweets were composed in the dominant language of the community – 75 percent of pro-independence tweets were in Catalan and 75 percent of pro-unity tweets were in Spanish. The percentages dropped to 64 and 56 percent respectively in heterogenous interactions. Additionally, heterogenous conversations lasted longer than those within homophilous networks, an indicator of deliberative engagement (Balcells & Padró-Solanet, 2016).

Despite being an extremely salient issue – emotionally and politically – individuals on both sides of the ideological spectrum engaged thoughtfully and deliberately with those on the other side of the aisle. One limitation of this study is that the researchers analyzed conversation between these two groups more than a year before the referendum and before debate had become extremely heated.

Tensions between Catalonia and Spain have not died down and the governments remain gridlocked. Although the *Centre d'Estudis d'Opinió* has its finger on the pulse of Catalonia, more research is needed into the communications environment in the region. Further studies should evaluate whether citizens on social media networks continue to engage in debate with those at the other end of the political spectrum despite the apparent intractability of the Catalan Process.

Chapter 6: Conclusion

Section 6.1: What have we learned?

Cass Sunstein (2017) writes “[d]emocracies may or may not be fragile, but polarization can be a serious problem, and it is heightened if people live in different communications universes- as in fact they sometimes seem to in the United States, the United Kingdom, France, Germany, and elsewhere. There is no doubt that the modern communications environment, including social media, contributes to the rise of partyism” (2017). The increasingly polarized political climate in the United States, which is amplified via social media, is isolating us from those with whom we disagree. Echo chambers of like-minded partisans, each on opposite sides of any given debate, churl side by side like two hurricanes, each creating a different reality for those within its grasp. The lack of exposure to cross-cutting opinions has deleterious effects on our abilities to engage in deliberative democracy; it is impossible to be a fully informed citizen when only exposed to half of the arguments on any particular issue. In order for social networking sites to function like public forums, users must not have information carefully curated to match their preferences.

Section 6.2: Prescriptive measures

In the United States, in Spain, and across the globe, social media platforms are perceived and treated as technology companies rather than media companies. This

potential misclassification, whether intended or not on the part of tech companies, has stymied the way we treat and govern communications on social networking sites.

Michael Sulmeyer, a former policy director at the U.S. Department of Defense now serving as the director of the Harvard Belfer Center's Cyber Security Project, remarked that "[d]ecades ago, as a matter of public policy, we made a decision that because the internet is free and open and belongs to everybody — and in this country is provided as a service by private companies — that people are going to by and large defend themselves." However, as the internet and social media platforms continue to be used by bad actors, foreign or otherwise, Sulmeyer noted that "[w]e're now getting to a point where we want to look at who is accountable for protecting the masses" (Cramer & Collier, 2018). However, what form that protection may take is yet to be determined.

In order to shed the blinders that social media sites such as Twitter and Facebook strap on their users, individuals must make concerted efforts to expose themselves to information that challenges their conceptions of what is true, what is scientific, what is morally pure, and what is best for society. Just as genetic diversity is critical to keeping a population of any species healthy, so is information diversity critical to keeping democracy healthy. *Scientias potestas est*, and the more accurate information we arm ourselves with, the more powerful citizens we are.

Customizability of social networking sites is unhealthy for democratic debate, but as many would contend, a necessary evil for helping everyday citizens cope with the flood of information available online. It is time for website designers to develop creative solutions to help internet users organize information without only giving them one slice of the internet "pie."

Parents, friends, teachers, religious figures, community leaders, and politicians must insist upon education on media literacy and how to stay informed in societies full of contesting conceptions of what is good and what is right. Children must be taught to ask the questions “why am I hearing this story?,” “who is telling the story?,” and, potentially more importantly, “who is NOT telling the story?” to be able to recognize the inherent biases any given interpretation may contain.

Media consumers must demand unfiltered, unfettered access to information streams. Unplanned and unchosen encounters are capable of doing a great deal of good for both individuals and society at large by exposing individuals to founts of information they had not previously been aware of or “factored in” their thought equations. More of these unchosen and unplanned encounters need to occur on our social media networks. Sunstein skillfully sums it up when he writes, “freedom, properly understood, consists not simply in the satisfaction of whatever preferences people have, but also in the chance to have preferences and beliefs formed under decent conditions – in the ability to have preferences formed after exposure to a sufficient amount of information as well as an appropriately wide and diverse range of options” (2017). It is correct that citizens cannot reach fully informed conclusions and make informed decisions in a communications environment that makes assumptions for them. We cannot expect to engage in healthy democratic discourse until the online streams of information that inform us provide us with all of the information there is to offer.

Section 6.3: Suggestions for policy changes at Twitter and Facebook

While Twitter and Facebook have updated their advertising policies to be more transparent, the sites cannot force people to change their minds, to join new friend groups,

or engage with information that holds no interest for them. However, the sites could reduce their usage of system-driven algorithms that suggest news stories, events, or pages to like when it comes to political information. The user-driven effects of customizability would remain, but that political information users would see would be much more diverse without the influence of system-driven controls.

Additionally, it is known that “people’s exposure to pro-attitudinal information is greater than their avoidance of counter-attitudinal information” (Dylko, et al., 2017) and that individuals are less likely to avoid information if it creates personal cost (Sweeny, Melnyk, Miller, & Shepperd, 2010). Another solution could be to not allow websites to save cookies⁴ that remember users’ filtered browsing information so they would have to reset their preferences each time they visit the site, an act which incurs personal cost.

Section 6.4: Suggestions for future research

There is little research on whether the abundance of information online is politically demotivating. A study similar to Iyengar and Lepper’s 2000 experiment on choice, with political information instead of items to purchase from, could illuminate whether the sheer amount of political material online makes people more confused and less likely to engage in politics.

⁴ A computer “cookie” (more formally known as an HTTP cookie, a web cookie, an Internet cookie or a browser cookie) is a packet of information that your computer receives when you visit a website. Your computer will send back the cookie without altering it, but save it in a file on your computer. Cookies help websites keep track of your visits and online activity. For example, if you put an item in your shopping cart on the website of an online retailer, cookies remind the website what was in your cart each time you click a new link. (<https://us.norton.com/internetsecurity-privacy-what-are-cookies.html>).

Additionally, it would be useful to study how other groups that segregate along ideological lines interact online. It is also widely known that the case of Catalan independence and the tense political situation within the region are particularly salient issues. It would prove beneficial to evaluate how groups self-segregate online around less salient elections, such as one within a different, less contentious region in Spain, or in years without presidential elections in the United States.

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