The Architecture of Facebook and the Public Sphere

by

Caitlin Cary Burke

Department of Art, Art History, and Visual Studies
Duke University

Date:_______________________

Approved:

___________________________

Victoria Szabo, Chair

___________________________

Paul Jaskot, Co-chair

___________________________

Mark Olson

Thesis submitted in partial fulfillment of
the requirements for the degree of
Master of Arts in the Department of
Art, Art History, and Visual Studies in the Graduate School
of Duke University

2019
ABSTRACT

The Architecture of Facebook and the Public Sphere

by

Caitlin Cary Burke

Department of Art, Art History, and Visual Studies
Duke University

Date:_______________________
Approved:

___________________________
Victoria Szabo, Chair

___________________________
Paul Jaskot, Co-chair

___________________________
Mark Olson

An abstract of a thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts in the Department of Art, Art History, and Visual Studies in the Graduate School of Duke University

2019
Abstract

The public sphere as defined by the philosopher Jürgen Habermas is a discursive space. Yet scholars also typically make mention of physical spaces that are tied to the public sphere. Sites such as the Grecian agora, the 18th century coffee house, and the New England meeting house, are often used as examples of public sphere space. These physical spaces are also evoked when theorizing the digital public sphere and online communication. A digital “town hall,” for example, was mentioned by Mark Zuckerberg, the CEO of Facebook, when discussing his vision for his social media platform. Yet, what is absent from these physical comparisons is a definition of public sphere space. What is the architecture of the public sphere? The need to define the space of the public sphere has become more pressing than ever. As made evident by the 2016 United States presidential election, Zuckerberg’s social media tool did not provide a true public sphere space. The public sphere is meant to bolster democracy by providing an opportunity for citizens to discuss politics freely, but Facebook negatively impacted American democracy by allowing a foreign party to target Facebook users with politically focused advertisements. The contrast between the supposed design of this digital town square and its impact, demonstrates the need to define a digital public sphere space. This thesis explores the architecture of various public sphere sites in order to materialize this theoretical concept and ground this communications model in the physical world. It will then focus on a virtual example of the public sphere in order to demonstrate
how material boundaries can be translated to digital boundaries through information architecture and user experience design. This analysis will help to contextualize the social media tool Facebook in a history of public sphere space and clarify why the design of Facebook prohibits it from becoming a digital town square or an effective public sphere. The comparison between Facebook and other examples of spaces of the public sphere will point to solutions for designing virtual public sphere spaces in the contemporary digital age.
Contents

Abstract .................................................................................................................................................. iv

List of Figures ....................................................................................................................................... viii

Acknowledgements ............................................................................................................................. x

1. Introduction ........................................................................................................................................ 1
   1.1 Spatial History and Architectural History .............................................................................. 1
   1.2 The Public Sphere .................................................................................................................... 3
   1.3 The 2016 United States Election ............................................................................................. 4
   1.4 Conceptualizing Public Space of the Public Sphere ............................................................... 5
   1.5 Data Visualization and the Digital Humanities ..................................................................... 6

2. Public Space of the Public Sphere ...................................................................................................... 8
   2.1 Habermas and the Public Sphere ............................................................................................. 8
   2.2 Architecture of the Public Sphere Defined ............................................................................ 12
   2.3 Architectural Examples ............................................................................................................ 18
   2.4 The Agora ................................................................................................................................. 19
   2.5 The Coffee House .................................................................................................................... 22
   2.6 The Meeting House ................................................................................................................ 26
   2.7 Common Threads ...................................................................................................................... 29

3. Digital Architecture and the Public Sphere ....................................................................................... 33
   3.1 Information Architecture and Architecture .......................................................................... 33
3.2 The BBS..................................................................................................................36
3.3 BBS Successors......................................................................................................45
3.4 Facebook..............................................................................................................46

4. Visualizing the 2016 Presidential Election and Facebook.................................54
   4.1 The 2016 Presidential Election .......................................................................54
   4.2 Visualizing Russian Hacking on Facebook.....................................................64
   4.3 Insights and Findings....................................................................................70

5. Facebook’s Digital Architecture..........................................................................76
   5.1 The News Feed and the Like Button...............................................................76
   5.2 The Materiality of Technical Objects and Ethics............................................78

6. Conclusion.............................................................................................................80

Appendix A.............................................................................................................82
Appendix B.............................................................................................................106
References.............................................................................................................108
List of Figures

Figure 1: Map of ancient Athens .......................................................... 22
Figure 2: Coffee house seating reconstructed through a VR Model ............. 24
Figure 3: Image of pamphlets circulated around the coffee house ............... 25
Figure 4: Map of Vernon, Connecticut with meetinghouse at the center of town, designated by “MH” .......................................................... 28
Figure 5: Architecture of the WELL system .......................................... 40
Figure 6: Example of a UX “dark pattern in which words are used to confuse the user” .. 41
Figure 7: Flat IA hierarchy vs. deep hierarchy ....................................... 41
Figure 8: Facebook early design ............................................................ 50
Figure 9: Facebook current design ....................................................... 51
Figure 10: IRA Ad Example 1 ............................................................... 59
Figure 11: IRA Ad Example 2 ............................................................... 59
Figure 12: Ad Formatted on PDF File .................................................. 64
Figure 13: Ad with “People Who Match” and “Interests” .......................... 65
Figure 14: Example of Group 1 ............................................................ 66
Figure 15: Example of Group 2 ............................................................ 66
Figure 16: Final list of categories derived, ordered by number of impressions .. 69
Figure 17: The University of Oxford’s categories and data ......................... 69
Figure 18: Image of Interactive United States map with Facebook Data...............................70

Figure 19: 2nd Amendment States Targeted...........................................................................72

Figure 20: Bernie Sanders targeted against Kansas..............................................................72

Figure 21: Michigan .............................................................................................................74
Acknowledgements

It would not have been possible to write this thesis without the help of Professor Victoria Szabo, Professor Paul Jaskot, and Professor Mark Olson. I am grateful for their guidance. I would also like to thank Eric Monson, without whose time and instruction, the data visualizations within this thesis would not have been possible. I appreciate all of the support and encouragement I have received while pursuing this topic, as well as the support and encouragement I have received to hopefully continue my studies in the future. I am motivated and inspired by each of them, and I hope I can one day give back to another student as they have given to me. Lastly, I would like to thank my friends, colleagues, and my partner Matt, for always giving me an extra boost of encouragement when needed.
1. Introduction

1.1 Spatial History and Architectural History

Architectural history is a spatial history. The boundaries created by built environments designate the patterns in which humans interact and move. An urban dweller cannot walk through a building, for example, so they walk around the building to find a new path. These boundaries relate directly to the “human experience of social and physical space,” or what is defined as spatial history.¹ In her book Architectural Agents: the Delusional, Abusive, Addictive Lives of Buildings, architectural historian Annabel Wharton describes this relationship well when she writes how, “spatial objects [model] our lives...Some structures, like Bentham’s infamous Panopticon, are insidiously manipulative. But most buildings, like most people, can both confirm our familiar patterns of behavior and modify them.”² This connection becomes obvious when considering spaces of exclusion or inclusion. Walls can either keep in our keep out certain communities, which drive relationships both physical and conceptual between

those excluded and those included. Movement in space is in many ways subject to built space or architecture.

In the contemporary Information Age, spatial history, and its corresponding social effects, has become more difficult to investigate due to the absence of absolute or real physical space. The material boundaries which formerly made spatial relationships easy to conceptualize have all but disappeared in lieu of server farms and database warehouses. Yet, the lack of material boundaries does not indicate a loss of boundaries all together. As Paul Virilio writes in “The Overexposed City:"

Architecture is more than an array of techniques designed to shelter us from the storm. It is an instrument of measure...that, contending with the natural environment, becomes capable of organizing society's time and space. Two procedures confront each other. The first is primarily material, constructed of physical elements, walls, thresholds and levels, all precisely located. The other is immaterial ...The first one is architectonic and urbanistic in that it organizes and constructs durable geographic and political space. The second haphazardly arranges and deranges space-time, the continuum of societies.

Built digital platforms, like buildings, are derived from a set of coded schema that function as boundaried systems. Algorithms limit the modes of interaction a user can experience within a digital environment. Much like the image of a wall enclosing a community, digital architecture can prohibit users from entering space. Login criteria,

---


which functions as a kind of wall or portal to a space, captures this idea well. Digital architecture, by way of information architecture, interface design, and user experience design, forms the immaterial boundaries for digital space.

1.2 The Public Sphere

As communication moves increasingly online and into digital space, the need to investigate spatial relationships is necessary. If spatial history can illuminate the “hierarchies that structure social relationships,” then it is also illuminative of communicative relationships. Digital walls can provide barriers for communication in the same way as physical walls. The topic of the public sphere is specifically susceptible to this kind of architecture. Defined as a “discursive site in which the educated public, through rational-critical disquisition, defines communal political positions which may subsequently affect the actions of the state,” the public sphere relies on a multiplicity of opinions and diverging ideas. In order to maintain this diversity online, digital platforms designed for communication, such as social media platforms, must be built for equality, raising the question: What are the attributes of designed digital public sphere space?

1.3 The 2016 United States Election

Certain examples of so-called “digital public spheres” have thus far failed in their designs to create this kind of discursive activity. On March 6th, 2019, Mark Zuckerberg, the chief executive officer of the social media platform Facebook, released a privacy statement in which he asserts:

Over the last 15 years, Facebook and Instagram have helped people connect with friends, communities, and interests in the digital equivalent of a town square. But people increasingly also want to connect privately in the digital equivalent of the living room. As I think about the future of the Internet, I believe a privacy-focused communications platform will become even more important than today’s open platforms. Privacy gives people the freedom to be themselves and connect more naturally, which is why we build social networks.7

By labeling Facebook as a “town square,” Zuckerberg compares Facebook’s design to a public sphere, but Zuckerberg’s comparison is a dangerous one. A cursory examination of Facebook’s role in the 2016 United States presidential election demonstrates that the tool performed exactly the opposite of this function. Facebook allowed foreign entities to buy user data in order to target American citizens with politically manipulative ads, negatively impacting the American voting process and perhaps changing American voting forever.8 While Facebook represents itself as a kind of public sphere and appears


---
to users as such, the easy manipulation of the platform to disrupt democracy
demonstrates that it cannot fulfill this promise. The architecture of Facebook’s system
failed to create a public sphere space with severe consequences. If Zuckerberg intends to
fix Facebook through a new “digital living room” model, or a private sphere model that
is the antithesis of a public sphere model, then his proposal will backfire if he does not
acknowledge that Facebook never actually functioned as a digital “town square.”
Unraveling the flaws in Facebook’s design is necessary as political communication
continues on this social media platform.

1.4 Conceptualizing Public Space of the Public Sphere

This thesis will explore problems related to a spatial history of the public sphere,
with a particular emphasis on Facebook’s design and architecture. It will begin by
analyzing the architecture of physical public sphere spaces in order to outline the
boundaries of public sphere space and evaluate how architecture achieved public sphere
activity. It will then move to an analysis of an example of a digital public sphere in order
to assess how material boundaries translate to the virtual. These various case studies
will form a spectrum on which Facebook’s digital architecture can be compared, and this
examination will ultimately demonstrate that Facebook has created an ersatz public
sphere through a system architecture that resembles the discursive space but in fact
shapes an environment that is homogenous and non-egalitarian. This design,
additionally, supports Facebook’s profit model by turning public sphere discourse into a commodity. Unearthing the complexities of this issue opens up avenues for remedying Facebook’s design flaws, as we see in Chapter 5. This thesis concludes with suggestions for designing digital public sphere space today.

1.5 Data Visualization and the Digital Humanities

In addition to analyzing the public sphere through theory and history, an integral element of this thesis is centered within the digital humanities and questions of visualizing spatial relationships. This thesis includes a data visualization of a portion of the Facebook advertisements tied to the Internet Research Agency (IRA), the Russian party that interfered with the 2016 election. 9 While spatial analysis typically involves utilizing tools such as ArcGIS to visualize physical data on a geographic plane, this kind of analysis is not possible with Facebook data because the data is not physical. It cannot be represented in the same way that archetypal historical and cultural data is visualized. However, it is exactly for this reason that a visualization of Facebook data is necessary. By exploring the metadata tied to the ads through Tableau, the immaterial boundaries of Facebook’s architecture become apparent much in the same way physical spaces of exclusion and inclusion become apparent through ArcGIS. In a kind of reversal

of traditional spatial analysis, geographic metadata tags, transposed against the micro-targets attacked by the IRA, will demonstrate the method by which the architecture of Facebook dismantles the public sphere.
2. Public Space of the Public Sphere

2.1 Habermas and the Public Sphere

Before understanding how the terms have been applied to Facebook or other architected spaces, it is necessary to first understand the phrases “public sphere” and “private sphere.” Definitions of the public and private sphere are typically derived from *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*, a seminal text written by the philosopher and theorist Jürgen Habermas.1

According to Habermas2, in the 17th century, mercantilism replaced feudalism in the British economic system. This shift in the economy placed power in the hands of a new middle class. Prior to this change, power resided in the aristocracy. The king or queen represented the face of the public, while all individuals under the control of the aristocracy were excluded from the public, or the realm of political action. With the rise of this new, wealthy, educated bourgeoisie, a large tier of private individuals came together in the 18th century to form a critical public.3

---

1 *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society* gives a history of what Habermas defines as the “public sphere” and how it emerged in the 17th and 18th centuries. Habermas also discusses the public and private spheres in the 20th century, but this summary is not included in the thesis.

2 This thesis relies on Habermas’ definition of the public sphere, but his definition also comes in various forms from a long line of thinkers like Adam Smith, Karl Marx, and Friedrich Engels. These different philosophers are not accounted for here, but the thesis does not intend to minimize other thought processes, either.

3 An additional text that analyzes the 18th century public sphere is the book *Painters and Public Life in Eighteenth Century Paris*, in which art historian Thomas Crow discusses the impact of the public and public
as coffee shops and salons to discuss the welfare of their state, they were able to gain strength and form a “public sphere,” taking control away from the aristocracy through the power of association and the exchange of ideas. The result of this educated middle class, now accustomed to freely circulating ideas and functioning independently of their state, led to a desire for increased rights such as freedom of speech. These new desires sparked democratic uprisings such as the French revolution. Thus, the public sphere represents a space for egalitarian, liberal, and rational debate about the welfare of the government and the people it governs, and it is inextricably intertwined with democracy.

While the public sphere represents a space for egalitarian, liberal, and rational debate, the private sphere represents everything that the public sphere is not. With the movement of men in the 18th century outside of the middle and upper class family home, public forums such as coffee houses created a new distinction between public and private. The idea of home defines the private sphere. In contrast to the public sphere, which is a space for the public to discuss and form critical opinions of their state, the private sphere does not interact with the state. Implicit in this distinction is also a gender and class divide. The home or family life in the 18th century was traditionally the world

of women. Political life, or life outside of the home, was the realm of men of the middle and upper class. The public and private spheres not only represent opposing forms of discursive activity but also typically represent a gender and class division, as well.

Although Habermas mentions coffee houses and salons as providing opportunities for the public sphere to flourish, he does not tie the public sphere to physical space. Habermas’ public sphere is purely a conceptual ideal. As Marshall Soules suggests in his article “Jurgen Habermas and the Public Sphere,” “Habermas defined the public sphere as a virtual or imaginary community which does not necessarily exist in any identifiable space.” The public sphere acts to regulate the activity of the state through public opinion, and in Habermas’ theory of the public sphere, it can emerge between any two people performing rational discourse. His approach focuses solely on the theory’s communicative aspects, rather than the spatialization of its concept, even though the gathering of individuals implies that there must be a space in which they can convene.

Indeed, there is something inherently structural about the public sphere because it occurs as a result of citizens coming together. For two individuals to have effective, egalitarian, democratic conversation, they must be positioned in such a way that their

---

space will allow for this conversation to happen. As Hannah Arendt, a prominent 20th century philosopher and political theorist, writes in her essay “The Public Realm, The Common:”

...the reality of the public realm relies on the simultaneous presence of innumerable perspectives and aspects in which the common world presents itself and for which no common measurement or denominator can ever be devised. For though the common world is the common meeting ground of all, those who are present have different locations in it and the location of one can no more coincide with the location of another than with the location of two objects. Being seen and being heard by others derive their significance from the fact that everybody sees and hears from a different position. Only where things can be seen by many in a variety of aspects without changing their identity, so that those who are gathered around them know they see sameness in utter diversity, can worldly reality truly and reliably appear...⁵

According to Arendt, there must be an opportunity for individuals to see the same object, or what could also be called the same idea, through many different perspectives. These individuals, as beings who take up separate amounts of space, cannot be collocated at the same Cartesian point. By theoretically observing the same idea from many perspectives, individuals create a diversification of opinions, and a variety of viewpoints. If the opportunity for varied perspectives is lost, then the public sphere or public realm dissolves. It is the equal opportunity to commune together to discuss a

subject with different opinions that makes the public sphere. There must, consequently, be a physical or virtual space, in which these multiple perspectives can co-exist.

2.2 Architecture of the Public Sphere Defined

Nevertheless, architectural historians have had difficulty defining the material boundaries of the public sphere. In his article “The Concept of Public Space And Its Democratic Manifestations,” historian of architecture Charles T. Goodsell begins by lamenting the disjunction that occurs between the conceptual idea of the public sphere and its physical manifestations. Goodsell writes, “The term public space is frequently used in academic writing, but its meanings are diverse. Authors in different disciplines employ the term quite differently. The most striking contrast is between those who refer to it as the social realm of unfettered discourse on matters of public concern, and those who conceive of it as a physical, public space, such as a town square or urban plaza.”

The sociologist Carl Cassegård reiterates Goodsell’s observation. Cassegård states that the relationship between the public sphere and public space “has often been pointed to as insufficiently researched.” Both authors agree, however, that there is a connection between the public sphere and the material world. For Goodsell, the “features in

---

common are the openness of public space...”8 Cassegård explores a similar idea of “openness,” stating that, “the idea of political will-formation through debate and discussion is informed by the idea that the public sphere must be an arena of free and open contestation...”9 Public space must, therefore, exhibit a quality of openness that lends itself to democratic conversation. If an architect were, for example, to design a city with few public plazas, it would make it difficult for people to convene due to the lack of open space.10 A city designed with many open arenas, in contrast, would be more conducive to public sphere activity, such as protest.11 Public sphere space must exhibit a quality of openness and accessibility so that diverse minds can commune. Public sphere space is thus defined, for the purposes of this argument, as space that is egalitarian or “open.” This egalitarianism results in a kind of diversity that also characterizes the public sphere.

8 Goodsell, 361.
9 Cassegård, 693.
10 Henry LeFebvre’s The Production of Space further explores the idea of control and domination in social space. For LeFebvre, “(Social) space is a (social) product...Many people will find it hard to endorse the notion that space has taken on, within the present mode of production, within society as it actually is, a sort of reality of its own, a reality clearly distinct from, yet much like, those assumed in the same global process by commodities, money and capital...The more so in view of the further claim that the space thus produced also serves as a tool of thought and of action; that in addition to being a means of production it is also a means of control, and hence of domination, of power;” See Henri Lefebvre and Donald Nicholson-Smith, The Production of Space (Malden, MA: Blackwell, 2009).
Additionally, public sphere space must be distinct from other spheres of common activity. Although this idea is implied when the public sphere is discussed as the antithesis of the private sphere, public sphere space must be separate from the government, the economy, and the home. As summarized by Nancy Fraser in her essay “Rethinking the Public Sphere: A Contribution to the Critique of Actually Existing Democracy:”

...the idea of the public sphere in Habermas’ sense is a conceptual resource...It designates a theater in modern societies in which political participation is enacted through the medium of talk. It is the space in which citizens deliberate interaction. This arena is conceptually distinct from the state; it is a site for the production and circulation of discourses that can in principle be critical of the state. The public sphere in Habermas’ sense is also conceptually distinct from the official-economy; it is not an arena of market relations but rather one of discursive relations, a theater for debating and deliberating rather than for buying and selling. Thus, the concept of the public sphere permits us to keep in view the distinctions between state apparatuses, economic markets, and democratic associations, distinctions that are essential to democratic theory.¹²

Public sphere space must remain accessible and open to citizens so that the discursive activity that occurs within it is not dominated or manipulated by the agendas of any party other than the public. In this way, it is distinct from the home, state, and economy.

It should be mentioned that Fraser also contests Habermas’ definition of the public sphere, contending that the public sphere is much more nuanced and complex.

She states, “there is a remarkable irony here, one that Habermas’s account of the rise of the public sphere fails fully to appreciate. A discourse of publicity touting accessibility, rationality, and the suspension of status hierarchies is itself deployed as a strategy…Moreover he fails to examine other, nonliberal, non-bourgeois, competing public spheres.”

For Fraser, Habermas’ idea of the public sphere is reductionist. It does not account for the status hierarchies that surround the 18th century bourgeoisie. Fraser continues:

… the bourgeois public was never the public. On the contrary, virtually contemporaneous with the bourgeois public there arose a host of competing counterpublics…Moreover, not only were there always a plurality of competing publics but the relations between bourgeois publics and other publics was always conflictual. The exclusions and conflicts that appeared as accidental trappings from [Habermas’] perspective, in the revisionists’ view become constitutive. The result is a gestalt switch that alters the very meaning of the public sphere. We can no longer assume that the bourgeois conception of the public sphere was simply an unrealized utopian ideal; it was also a masculinist ideological notion that functioned to legitimate an emergent form of class rule.

Fraser calls into question Habermas’ conception of the public sphere by pointing out issues such as gender and class exclusion, demonstrating that the ideal set forth by Habermas never really existed because social equality did not and does not exist. She finds Habermas’ view of one true “public” incorrect because it does not include the

---

13 Ibid, 60-61.
14 Ibid, 60.
array of marginalized groups that form discursive spaces as a response to this exclusion.

She defines these spaces as subaltern counterpublics, stating that:

This history records that members of subordinated social groups...have repeatedly found it advantageous to constitute alternative publics. I propose to call these subaltern counterpublics in order to signal that they are parallel discursive arenas where members of subordinated social groups invent and circulate counterdiscourses, which in turn permit them to formulate oppositional interpretations of their identities, interests, and needs.16

These subaltern counterpublics are not only advantageous for the individuals they represent, but are necessary for a true public sphere. They give marginalized groups a placed in which to maintain their sense of identity. It is through the dialectical differences in the subaltern counterpublics and publics that a public sphere is formed.

This thesis’ definition of public sphere space incorporates Fraser’s perspective. Public sphere space is defined as egalitarian, diverse, and exclusive of the home, the government, and the economy. This definition is extracted from Habermas’ definition but is also separate from the historiography on which Habermas’ definition is based. By diverse and egalitarian, this thesis contends that public sphere space allows for the possibility of publics and counterpublics to convene, and is more closely aligned with Fraser’s view of the public sphere. It imagines that public sphere space creates an opportunity for dialectical tension and for diverse individuals to represent their perspectives equally. As separate from the home, economy, or state, moreover, public

16 Ibid, 67.
sphere space is defined as space that is free from hierarchies and power structures. This space does not need to be, quite literally, separate from the home or issues of the home such as “private-domestic or personal-familial matters,” nor does it need to be separate from places of work and exclusive of economic questions such as the rights of workers. It also does not exclude the state in the literal sense that public sphere activity cannot occur in state buildings or that the state cannot regulate public sphere activity. It imagines the public sphere as protected by the state’s power, and this is demonstrated through rights such as freedom of speech and freedom of the press. But public sphere space must be exclusive of the hegemonic structures that form the basis of these environments. It must represent a kind of “third place”\textsuperscript{17} that is unique from these other spheres and is devoid of any semblances of control. In this sense, certain spaces are more conducive to this kind of activity than others. It is difficult to imagine an employee protesting in a manager’s office, for example, where the manager’s hierarchical advantage is represented by their placement behind the desk. Public sphere space must be protected from the constraints or power dynamics of the home, state, or economy, and certain spaces support this concept more than others. Public sphere space is therefore, in summary, “open” and egalitarian space that allows for diverse individuals

\textsuperscript{17} For more on the concept of “third places,” see Ray Oldenburg, The Great Good Place: Cafés, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community (Philadelphia: Da Capo Press, 2005).
to commune and discuss the actions of their state free from the demands of the home, state, or economy.

2.3 Architectural Examples

The materialization of this conceptual idea can be seen through architectural examples of the public sphere. As mentioned previously, the “town square” is a site that is often used to alternatively mean “public sphere.” Communications, art historical, and historical journals, books, and articles, also typically mention the agora, coffee house, and New England meetinghouse, as physical representations of the public sphere. The use of these architectural sites to evoke public sphere space is almost so ubiquitous that it is hard to determine when the proclivity to mention them began. For example, in a 1995 Wired article titled, “The Net as a Public Sphere?” author Mark Poster writes:

Throughout Western Civilization, places such as the ancient Greek agora, the New England town hall, the local church, the coffeehouse, the village square, and even the street corner have been arenas for debate on public affairs and society. Out of thousands of such encounters, ‘public opinion’ slowly formed and became the context in which politics was framed. Although the public sphere never included everyone, and by itself did not determine the outcome of all parliamentary actions, it contributed to the spirit of dissent found in a healthy representative democracy.18

Poster’s explanation for the public sphere includes the image of the “Greek agora,” the “New England town hall,” and the “village square.” The same places are repeatedly mentioned when referring to the public sphere and spatially these sites share some easy commonalities. All of these spaces are “open” in that they are places to gather. Patrons gather at coffee shops, in the agora, or “meet” at the meetinghouse. Before returning to Facebook and its public sphere aspirations, this thesis will review the characteristics of the agora, the coffee house, and the New England meeting house, in order to understand how each of these sites demonstrate attributes of a public sphere space that is egalitarian, diverse, and distinct from the economy, government, and private sphere.

2.4 The Agora

In the list of sites often invoked in the history of the public sphere, the Greek agora is typically mentioned first. The word agora is borrowed from the Greek agorá and it is a noun derivative of “ageírein” which means, "to gather, assemble," “a gathering place,” or a “marketplace.”¹⁹ The agora was likely first recorded in the epic tale *The Odyssey* in which Telemachus, son of the long-absent Odysseus, calls the Achaians to gather. The text reads:

‘Never has there been an assembly (agora) of us or any session
Since great Odysseus went away in the hollow vessels.
Now who has gathered us in this way? What need has befallen

Which of the younger men, or one of us who is older? Has he been hearing some message about the return of the army Which, having heard it first, he could now explain to us? Or has he some of the public matter (agoreuei) to set forth?"^20

In this scene, Telemachus, the son of Odysseus, has called for an assembly of people or an agora to discuss a public matter, or agoreuei. Already, there is a link between the assembling of individuals and the discussion of public matters. In the article “Public Space and Political Autonomy in Early Greek Cities,” author Marcel Detienne, in his introduction to public spaces, writes:

[An] agora refers at one and the same time to several matters we tend to distinguish. It is the locality, the place where assemblies are held; it is the people who make up the ‘deliberative’ assembly, the men at arms; and, finally, it is the speech pronounced at the assembly...[It] takes the shape of a circle or a semicircle. The person who wants to speak approaches the middle...The central point of the circle or semicircle...These practices...have constructed and shaped, both spatially and symbolically, a place that we can call ‘the place of the political’^21

The conflation of the agora as both a theoretical space of communication and a physical space for communication is apparent in this definition and in the speech act itself.

Detienne hints that the agora can take the shape of a circle or semicircle, demonstrating the physicality of the public sphere as well as some of its conceptual features. This is later reflected in the scene with Telemachus, in which it is indicated that Telemachus

^20 Marcel Henaff and Tracy B. Strong, Public Space and Democracy (Minneapolis: University of Minnesota Press, 2001), 1.
^21 Ibid, 44-45.
goes to the center of the circle of the agora to raise his argument to his audience. The Grecian agora thus begins to create material boundaries around this theoretical concept. These boundaries take shape in the Athenian agora, or the central marketplace of early Athens. Between the 5th and 4th centuries BCE, Athens transitioned to a democratic government, and the changes in the architecture of the city during this time reflect this development. The placement of the Athenian Agora shifted from behind the Acropolis to the front of the Acropolis made it more easily accessible to Athenian citizens. As Jessica Paga writes in “Contested Space at the Entrance of the Athenian Acropolis,”

When the Agora was transferred from the old part of the city, somewhere to the east of the Acropolis, to its Classical location northwest of the Acropolis, the sanctuary of Athena was even more integrated into the overall plan of the astu (city center)...previously, access to the Acropolis from the Old Agora required a more circuitous route. Once this new Agora location was established...movement and communication between the central marketplace and political hub of the city and its most sacred area could be more rapid.

The Agora’s new central location created an egalitarian axis point for Athenian citizens. The city center acted as an opportunity for diverse citizens to interact as they sold and exchanged products, and the likelihood of meeting someone from a different occupation

23 Ibid, 166.
or class was increased by the necessity of visiting this economic hub. As a central
location, the Agora was an early iteration of the concept of a public sphere space.

![Figure 1: Map of ancient Athens](source)

Source: Jessica Paga, “Contested Space at the Entrance of the Athenian Acropolis,”
Journal of the Society of Architectural Historians 76, no. 2 (January 2017): pp. 154-174,
https://doi.org/10.1525/jsah.2017.76.2.154, 155.

### 2.5 The Coffee House

In addition to the Agora, the London coffee house is also typically cited as a
public sphere space. The coffee house emerged during the 17th and 18th centuries as a
result of trade between England and the Ottoman Empire. An exotic Turkish drink
known as coffa became interesting to an English audience because of its reported
medicinal benefits.²⁴ It wasn’t before long that coffee houses began to arise around the
city in order to support the growing demands for the new drink. By the end of the 17th

century, nearly 2,000 coffee houses existed in London. Coffee houses became, in somewhat of a similar way that they are today, common meeting places for British men. However, the popularity of coffee houses was not simply the result of the product sold within these venues. Coffee houses were unique in that any type of man, no matter his position, could enter into the space for a cup of coffee and a conversation. The cost of coffee for only a penny created a low barrier to entry, and unlike many other buildings within London, coffee houses were class agnostic and open to all. This peculiarity was noted by a 17th century coffee house patron named Samuel Pepys, an administrator of the navy of England whose diary is a well-known relic of the 17th century. Recorded in the diary, Pepys writes of the “pleasure” he finds in the “diversity of company - and discourse” at the coffee house. This diversity of company was also remarked upon in a play written in 1661 entitled A Character of Coffee and Coffee-Houses. The play begins with a declaration that “A Coffee-house is free to all Comers...Here is no respect of persons. Boldly therefore let any person, who comes to drink Coffee sit down in the very Chair, for here a Seat is to be given to no man.” Indeed, arriving at a coffee house, each patron could take a seat wherever they wanted, creating an atmosphere of equality in an otherwise highly stratified social climate.

27 Ibid, 51.
Notably, the egalitarianism of the coffee house seating was governed loosely by rules. As historian Markman Ellis writes in his book *The Coffee House, A Cultural History*:

Arriving in the coffee-house, customers were expected to take the next available seat, placing themselves next to whoever else has come before them. No seat could be reserved, no man might refuse your company. This seating policy impresses on all customers that in the coffee-house all are equal...²⁸

Much like how the central location of the Athenian Agora encouraged the co-mingling of diverse people, Enlightenment coffee house seating promoted an egalitarian environment by remaining open to people of different classes. This seating policy also had the effect of creating a diverse group of patrons.²⁹

---

²⁸ Ibid, 52.

²⁹ I created a VR model of a coffee house with Unity in order to help the reader visualize the coffee house environment. The model is an interpretation of the various accounts of coffee houses from the period, as well as from paintings and images that remain of 17th and 18th century coffee houses. For a video of the model, see Caitlin Burke, “Coffee House,” Vimeo, November 12, 2019, https://vimeo.com/372718598.
In addition to the discursive activity of the coffee house, the circulation of early newspapers and political journals is likely a reason Habermas signified these sites as contributors to the rise of democracy, which places 18th century coffee houses firmly within the history of media and communications as well. A patron entering the coffee house could, for merely a penny, receive a cup of coffee and a newspaper. He would then sit down at large tables with bench seat to read the newspaper and discuss politics with his fellow citizens.

Figure 3: Image of pamphlets circulated around the coffee house

The confluence of the egalitarian seating arrangements, diverse audience, and political content to be discussed created an environment for democracy. According to historian Aytoun Ellis:

...A man on entering was free to take any vacant seat and to engage his neighbour in conversation. If unable to read, he was able to hear the news read out aloud from the Government’s Gazette by one of the company; or he could
listen to the poets as they read and discussed their work, or heard the informed opinions on the latest play. The current gossip, the latest political scandal, the fashionable quack-doctor, all these provided subjects of conversation; and to the poor scrivener and apprentice the coffee-house offered, in addition, a welcome retreat that was both comfortable and economical."

No matter how forced, the coffee house environment facilitated conversation between people from diverse backgrounds about the political news of the day. Civilized conversation and debate about the government began in this kind of environment. The 18th century coffee house, through its egalitarian seating arrangements, created yet another iteration of a public sphere space.

### 2.6 The Meeting House

In the New England meetinghouse of Colonial America, the publicness of the Athenian Agora and the London coffee house was produced through different means. It provided a space for members of a community to gather, discuss, and vote on common affairs in a “town hall” meeting. In a commission by the state of Connecticut and the Committee on Historical Publications titled “The New England Meeting House,” Reverend Noah Porter, then president of Yale College, describes the relationship between early New England and the meetinghouse. Porter states:

> ...A meeting house supposes an organized community or society of men who have occasion to assemble together at regular intervals of time for the transaction of public business or the discharge of public duties. Insamuch as the New

30 Aytoun Ellis, xv.
England settler regarded the meeting house as almost the prime necessity of his life, if not as essential to this existence, he must have recognized himself almost distinctly as what Aristotle calls a political animal, that is, an animal made for society and holding definite relations to the community.\(^3\!^1\)

Porter draws a tight comparison between the site of the meetinghouse and the discussion of public activity. These places were sites for assembly, much like the agora or the coffee house. The meetinghouse was the center of the new, self-governed communities of early New England, and functioned as both a common space for political discussion and religious centers. In a conceptual sense, the meetinghouse equaled an opportunity for religious freedom and democracy.

In an architectural sense, the meetinghouse enacted publicness by remaining, like the agora, a “central building in the village and the town.”\(^3\!^2\) Most of the other fundamental buildings within a community surrounded the meetinghouse, and the meetinghouse was designed to be located within the highest density of a community’s population. Several main streets radiated from this center location. In a time when travel was either by horse or on foot, the centrality of the meetinghouse was imperative. It allowed for access to the location by the majority of the citizens impacted by the discussions that occurred within it. The meetinghouse, in both its centrality as a meeting


\(^3\!^2\) Ibid, 11.
point and its function as a place for town hall discussions, was an egalitarian and open space.

![Figure 4: Map of Vernon, Connecticut with meetinghouse at the center of town, designated by “MH”](image)


Additionally, the nomenclature within the phrase “meetinghouse” indicate that these places were sites for democracy. Many early American buildings used the word “house” to describe a public building because of the radical new importance ascribed to the individual in democratic society. Whereas the residence of the monarch was the center of European life, it was now the citizen’s “house” which became society’s focal point. “Because ‘We, the People,’ constituted the government, the citizens’ house became the equivalent of the king’s palace, which made the private house [the] primary
symbolic expression of civic architecture.”\textsuperscript{33} The suffix -house was therefore affixed to public buildings in order to suggest “public buildings serve as the government’s - that is the citizens’ - symbolic home.”\textsuperscript{34} This nomenclature can be recognized today by any American citizen who has ever referred to “statehouses, courthouses, firehouses, schoolhouses, police station houses, [jail houses]” or even the White House.\textsuperscript{35} These public sites are meant to be houses that belong to every citizen, and New England meeting houses are merely one example of this naming convention. Designed as simple, square, one-room buildings, many meetinghouses mimicked the actual architecture of early American homes, becoming “the political home of the community.”\textsuperscript{36} Through the naming convention assigned to meetinghouses, their resemblance to the American home, and their easily accessed location, meeting houses acted as public sphere spaces.

\textbf{2.7 Common Threads}

The agora, the London coffee house, and the New England meetinghouse, although sites that span across time and the globe, have certain features in common which make them successful public spaces of the public sphere. All three locations offered an opportunity for diverse minds to communicate in a common,
accessible, public arena that was not dominated by any kind of economic, state, or
domestic power structure. The agora, for example, was a marketplace where people
needed to meet to exchange goods and services. This brought men together from
different occupations with a common goal. Although the men met in a marketplace, a
site of economic activity, their discourse was not dependent upon or influenced by the
exchange of goods. The coffee house, similarly, brought different classes together
through a seating policy that encouraged conversation between men of different
occupations and backgrounds. Coffee houses were also extremely common throughout
London, and were thus geographically easily accessible. Private citizens in London now
had a public space in which they could converse about the status of their government.
Meetinghouses institutionalized these practices. They were “houses” for citizens to meet
and discuss the government of their community. Their location at the center of a
community increased their accessibility for all kinds of members. They were the “town
squares” of early New England and physical manifestations of democratic spaces. By
allowing members of a community to convene in a public space outside of other societal
spheres, the agora, coffee house, and meetinghouse, created boundaries around public
sphere spaces.

However, the agora, coffeehouse, and meetinghouse, were also flawed public
sphere spaces. Although each of these sites succeeded by bringing men of different
classes together in an open and egalitarian space, they did not bring together the entirety of citizens, failing to create a public sphere space that is truly open and egalitarian. Each space excluded the subaltern counterpublics described by Fraser. They were homogenous and represent poor examples of diversity. This issue reaffirms Fraser’s concerns about Habermas’ definition of the public sphere. By Habermas’ definition, these sites represent a dominant “public” and function to support this kind of public alone. What, then, can be learned from these constructions of public sphere space?

Although they were exclusive of many citizens, these sites increased diversity and egalitarianism by allowing for the co-mingling of men from different classes. They thus functioned to increase diversity at a very small scale, demonstrating that the model is a regulative principle that must be improved and expanded to include all publics and subaltern counterpublics. A note made by Fraser clarifies the complexity of this issue. She writes,

Let me not be misunderstood. I do not mean to suggest that subaltern counterpublics are always necessarily virtuous; some of them, alas, are explicitly anti-democratic and anti-egalitarian; and even those with democratic and egalitarian intentions are not always above practicing their own modes of informal exclusion and marginalization.37

37 Fraser, 67.

It is not a matter of whether a public sphere space represents a dominant public or if represents a subaltern counterpublic. If a public sphere space works to create an echo
chamber of a singular thought process, then it is not a public sphere. Public sphere space comes closer to its ideal the more it expands to include many different diverse opinions and thoughts and, when considering methods of expanding the public sphere, what better tool does there appear to be than social media? With a kind of techno-utopian spirit, Facebook builds on this idea by promising to increase connections and communication. Yet, as we will see in Chapter 5, the design of the platform is incompatible with these aspirations.

---

3. Digital Architecture and the Public Sphere

3.1 Information Architecture and Architecture

Before comparing the design of Facebook to physical public sphere spaces, the connection between physical space and digital space must be clarified. Despite the fact that Facebook is a virtual community, the creation of digital material shares a history with the conceptualization of physical space, bringing the two forms of space into close comparison. In a 1964 paper titled “IBM System/360 architecture,” a footnote at the bottom of the first page reads:

The term architecture is used here to describe the attributes of a system as seen by the programmer, i.e., the conceptual structure and functional behavior, as distinct from the organization of the data flow and controls, the logical design, and the physical implementation.\(^1\)

The IBM engineers who authored the paper distinguish the difference between “logical structure (as seen by the programmer) and physical structure (as seen by the engineer).”\(^2\)

The more mechanical work of engineers at this time, which included implementing the physical structures of the computer, was distinct from the more conceptual work of the programmer, which included the organization of the information within these physical structures.\(^3\) In order to describe this distinction, the engineers use the word...

---


\(^2\) Ibid.

\(^3\) The title of programmer and engineer are used today more interchangeably. Programmers are also often distinguished between whether they work on the front-end or back-end of a computer system. The role of
“architecture,” marking an early example of the use of the term to describe computer systems. Although the materials with which they work with are different, the duality of an architect’s role parallels that of a computer programmer. The practice of “architecture” is defined as “the art and technique of designing and building...to fulfill both practical and expressive requirements.” Architects, when designing a space, must not only account for the look and feel of a space, but its functional aspects as well. Computer programmers ensure that a computer program is well built and has aesthetic appeal, and a user experience designer takes the final step of making the space, or the website, beautiful and usable. The way in which a computer program is designed shares similarities with how an architect constructs a house. A solid foundation needs to be laid before walls can be erected and paint is applied. Digital spaces, as spaces that must be functional as well as pleasurable, can therefore be analyzed through many of the same methods as physical space.

In her book, *Architectural Intelligence: How Designers and Architects Created the Digital Landscape*, author Molly Wright Steenson details the evolution of architecture’s impact on computer science from the 1950s onward. Steenson writes, “long before the emergence of the Web, or even personal computers, major information technology
companies such as Xerox and IBM saw the future in the corralling and managing of information...It wasn’t [an] architect but rather the president of Xerox...who first coined the term ‘architecture of information’...” Early computer engineers realized that in order to create successful digital products, information must be organized in a way that is easily comprehensible. They looked to experts in spatial organization, or architects, for guidance. For example, the book *A Pattern Language: Towns, Buildings, Construction*, written by the architect Christopher Alexander, defined architectural design patterns that were later used to help define object-oriented programming languages and the design patterns of software. What early engineers understood was that “a computer’s interaction with its users was a matter of controlling space.” This meant that information, like the space of a building, must be organized in an artful way so that the experience of navigating a virtual space would be effortless and enjoyable. This arrangement of space applies to both back-end and front-end engineering. If the back-end of a computer system is not organized well, then the information is difficult to

---

7 Ibid, 111.
8 The “desire paths” example is often used by UX designers to demonstrate how poorly designed digital spaces frustrate and confuse users. People will walk to find their own path in a park when the paths that have been built for them do not suit their needs. See Austin Knight, “Desire Paths and Real World UX,” RSS, accessed October 31, 2019, https://austinknight.com/writing/desire-paths-and-real-world-ux.
retrieve on the front-end. The front-end will then become disorganized, making it
difficult for any UX designer to achieve a user-friendly interface. The reliance of digital
architecture on the principles of physical architecture indicate that digital public sphere
spaces can be compared with and evaluated against physical public sphere spaces such
as the agora, coffee house, and meeting house.

3.2 The BBS

When extending the history of public sphere space to the digital present, a logical
demarcation begins with bulletin board systems or “BBBs’” of the 1980’s. As some of the
earliest examples of public spaces online, BBS’ share commonalities with the agora,
coffee house, and meetinghouse. The term “Bulletin Board,” in fact, is derived from the
physical “community bulletin boards that you still see in, “ in community spaces like
coffee houses and “…cafés…” In 1978, computer hobbyists Ward Christensen and
Randy Seuss wanted a way to run their computer club online during a snowstorm. They
built what they titled a CBBS or Computerized Bulletin Board System that “allowed
personal-computer owners with modems to dial-in to a dedicated system and leave
messages that others would see later.” Their invention sparked a wave of BBS creations

---

9 Bruce Sterling, “Dead Media Beat: Bulletin Board Systems,” Wired (Conde Nast, October 27, 2016),
and BBS communities across the country. Like a bulletin board system made of corkboard and tack on which flyers, placards are posted, a BBS offered, through a simple GUI portal, the ability to find a topic and post a message. By dialing-up to a BBS through a modem and a personal computer, almost any user could enter a conversation with any other BBS user of the same ecosystem, as long as the systems operator, or the host of the BBS, granted the user access. In order to grant this access, the systems operator, who originally designed and architected the BBS on his computer, would “answer the telephone, determine the information transmission rate, process the user’s request, [and] hang up the telephone.” 11 Although this process became more efficient as software advanced, the overall architecture of the system remained the same. Once users began sending messages to one another, a new digital community space was born.

BBS communities, like the agoras, coffeehouses, and meetinghouses before them, allowed users a certain amount of unadulterated discursive freedom separate from the home, business, and government. Although BBS’ were accessed from computers within the home, as one user describes, “Dialing into a BBS felt like whole-body teleportation.” 12 BBS’ created a kind of transportative experience. Moreover, BBS activity was often done at night, in “off-hours,” outside of the realm of business. BBS

conversation was not connected to business or profit, but was enjoyed purely for
kinship. As another user states, “BBSes provided very close-knit communities...I have
fond memories of this period in my life, and made many friends through the BBS world.
I'm still in touch with a number of them to this day.” As small, homegrown systems,
BBS' also offered sheltered worlds outside of the jurisdiction of the government. BBS
software was typically hosted on a systems operator’s personal computer, therefore
separating the activity from federal surveillance. As small systems free from the
government, exterior to the home, and exempt from profit, BBS' managed to create
versions of public sphere activity.

Within the world of BBS’, certain online communities were more successful than
others at continuing the example set by the agora, the coffee house, and the
meetinghouse. The WELL (Whole Earth ’Lectronic Link), a 1985 bulletin board system
founded by Stewart Brand and Larry Brilliant grew out of a community already in
existence. Brand, who had formerly founded the Whole Earth Catalog, a kind of magazine
for the countercultural communities in Silicon Valley, decided to take his Whole Earth
community digital by way of BBS. The WELL, therefore, embodied many of the credos

13 Ibid.
of the Whole Earth community that came before it; its goal was to “recreate the countercultural ideal of a shared consciousness.”

Like the agora, coffee house, and meetinghouse, the WELL created an egalitarian space through an “open,” or in UX terms, “flat” architecture. Brand, when defining the boundaries of the new system, argued that, “‘users should be allowed to create their own conversation topics.’” These topics, “…like other conferencing software of the time…mapped a tree of information in a hierarchy extending from the system level down through the conference level to individual topics…users of the WELL could move from topic to topic, jumping in and out at will, creating their own conversations if they wished.” The impact of this architecture was an environment in which users were not prompted or guided in their decisions but rather experienced a kind of virtual liberty.

---

15 Ibid, 142.
16 Ibid, 144.
The effect of this environment, or the contrast between an “open” environment and one that is restrictive, can be better understood by thinking about contemporary user experience design patterns. The UI of the WELL was not filtered with “dark patterns” or UX design tricks. The color, size, ordering, and wording of topic modules was transparent. Many contemporary UI designs, conversely, attempt to lead a user to perform certain actions. Something as simple as a vaguely worded description can determine a user’s behavioral pattern on a platform.

Figure 6: Example of a UX “dark pattern in which words are used to confuse the user

Figure 7: Flat IA hierarchy vs. deep hierarchy
The “flat” Internet architecture of the WELL allowed categories to be enjoyed through organic discovery. As described by a Nielson Norman Group article titled “Flat vs. Deep Website Hierarchies,” “content is more discoverable when it’s not buried under multiple intervening layers. All other things being equal, deep hierarchies are more difficult to use.” A flat Internet Architecture gives power to its users by allowing them to easily navigate the virtual environment. This flatness is similar to the way in which egalitarian seating worked in the coffee house, or how the centrality of the meeting house’s and agora’s location helped conversation flourish. The space of each environment supports its community by allowing the discursive needs of the users to dominate the space. The users control these “open” spaces. As Howard Rheingold describes in his book The Virtual Community, “If you think of the WELL as a building, you can walk down the halls and look at the signs on the doors to different rooms of various sizes. The sign on the door tells you about the general subject of the conversations that take place inside...The building is the conferencing system. The rooms are the conferences. And within each conference room, imagine a number of blackboards covered with writing. Approach one of the blackboards, and you will see a sign at the top that indicates which

subtopic of the conference room’s specified domain is under discussion…”¹⁸ Users could walk around the WELL freely as they might an open plaza, such as the agora. The WELL created a virtual public space.

This architectural egalitarianism was also instantiated into the rules of the community, which were built into the system’s architecture through certain features. Users of the WELL benefited from such notions of equality like “a flat organizational hierarchy” and the ability to “own your own words.” Whereas on other BBS systems, the systems operator, as the creator and organizer of the group, was often attributed “some god-like aspects” because he or she could “read all the private messages,” kick users off of a system, and even erase content, the main purpose of systems operators on the WELL was to “[preserve] and [support] the exercise of freedom and creativity by the WELL’s users through providing an open forum for their interaction.”¹⁹ As Fred Turner describes in his book From Counterculture to Cyberculture,

Although the WELL’s member agreement gave conference hosts and the system’s owners the power to remove members from the system, managers used that power only three times in the system’s first six years, and each time they allowed the member they had removed to return. Rather than assert their authority directly, the WELL’s early managers chose to give users the power to self-rule through information technology.²⁰

---

¹⁹ Turner, 148.
²⁰ Ibid, 145.
Members “who did not like one another’s postings,” for example, had the option to “erase them from their own screens – though not from the community as a whole – by using a ‘Bozo filter’ program...Likewise, members who later regretted their own postings could return to the system and erase them wholesale using a ‘Scribble’ feature.”21 This feature celebrated the fact that users had control over their environment.

Kevin Kelly, an integral founding member of the WELL system, when asked in an interview if he believed control on the WELL was in favor of the users, stated that it was in fact this tool that allowed the users too much freedom. Kelly describes, “I objected to that power. I did not want the users to have that power because my argument was very simple. I had many conversations with [a user] online. And [when] he removed his side of [the conversation] he diminished and devalued my side.”22 Whether or not the Scribble feature on the WELL benefited or hurt the community, users on the WELL enjoyed rights that shaped the system, and the system responded in kind. The WELL was “like having the corner bar...It’s a place... very similar to the feeling of peeking into the cafe, the pub, the common room...”23 The WELL, through its system architecture and user rights, exhibited many attributes of a digital public sphere space.

21 Ibid.
22 Interview conducted with Kevin Kelly in July of 2019. In addition to discussing the WELL, Kelly also had many interesting insights into Facebook, social media, and democracy. For full interview transcript, see Appendix A.
23 Rheingold
3.3 **BBS Successors**

Digital communities, and the desire to create them, grew after the 1980’s and the development of BBS systems. In the late 1980’s and early 1990’s, large companies such as CompuServe and AOL offered their versions of online community. CompuServe, which was founded in 1969 as a “processing and time-sharing service,” created a suite of products that included “forums” which resembled bulletin board system communities.\(^{24}\) AOL, likewise, created its own email system in 1993, and premiered AOL Instant Messenger in 1997.\(^{25}\) The founding of the World Wide Web, also in 1993, made access to digital communities even easier.\(^{26}\) By the late 1990s and early 2000s, additional social media sites began to appear. Sixdegrees.com, a site launched in 1997, “combined popular features such as profiles, friends lists and school affiliations in one service.”\(^{27}\) Friendster, launched in 2002, contained features that “showed how you were connected to strangers.”\(^{28}\) LinkedIn, launched shortly after in 2003, was “a place to post resumes online” but “evolved into a business networking site.”\(^{29}\) MySpace, launched the


\(^{28}\) Ibid.

\(^{29}\) Ibid.
same year, was a “place people logged in every day to write to friends, show off photos, and play music.” Facebook launched in 2004. Since the dawn of the Internet, the demand for online communities has persisted. From the agora to Facebook, citizens have desired venues in which to gather.

### 3.4 Facebook

While Facebook appears to be yet another social media platform within this timeline, early evidence of Zuckerberg’s vision for Facebook suggests he had loftier goals. In a video of Facebook’s office from 2006, Zuckerberg is found sitting on a couch drinking beer. Talking to the interviewer, he states, “The goal that we went into it with wasn’t to make an online community but sort of a mirror for the community that exists in real life.” Zuckerberg’s intention from the beginning was not so much to create a new community space but to add to the public sphere spaces that already physically existed, such as his Harvard student quad. In a later interview with Wired magazine from 2009, Zuckerberg refines his vision. He states:

> So I think there are two big themes: One is just the trend that Facebook is taking for the next couple years, and then there’s more structural stuff that’s underlying that in terms of the platform that we’re building. First, think about how the Facebook platform has evolved. We started off as this platform inside Facebook; and we were pretty clear from the beginning that that wasn’t where it was going

---

30 Ibid.
31 Facebook Interview, YouTube (YouTube, 2010), http://www.youtube.com/watch?v=--APdD6vejI.
to end up. A lot of people saw it and asked, ‘Why is Facebook trying to get all these applications inside Facebook when the web is clearly the platform?’ And we actually agreed with that. It’s just that we were just getting started. And now as time goes on, we’re shifting away from Platform inside Facebook and shifting more towards Connect (outside of Facebook)...The structural change comes from this point of openness. We talk about this concept of openness and transparency as the high level ideal that we’re moving towards at Facebook. The way that we get there is by empowering people to share and connect. The combination of those two things leads the world to become more open. And so as time has gone on, we’ve actually shifted a bit more of a focus not just on directly making it so people can use Facebook and share and be open on Facebook, but instead on making it so that the systems themselves have open properties. So, one analogy that we think about is a government or a nation. If you want to be free, or you want to preserve freedom for people, you both need to have laws that make it so people have freedom of speech and all the freedoms that they need. You also need to have an open governance system where people can vote and people have representation. And we think that over the long-term the way that we actually create the most openness and transparency in the world (at Facebook) is both by creating the most powerful applications ourselves and creating a platform that is fundamentally moving more in the direction of being an open platform itself, right? So we’re aiming for openness on two levels: One on the fact that there’s more sharing, and another on the fact that by having these open standards, you’re constantly moving towards a place in the industry where there will be more and more sharing, right? So people can bring their information anywhere they want. Anyone can use the platform.\textsuperscript{32}

In the statement, Zuckerberg indicates that he is both building Facebook’s tech stack, as well as its policies, toward openness. In the technological sense, building toward openness means that Facebook will allow users to login to other apps and products with the new Facebook Connect tech stack. Yet in the sociological sense, through openness

Zuckerberg is gesturing towards ideas of the public sphere. Like Fraser’s notion of subaltern counterpublics, a public sphere thrives when it is open and diverse.

The development of Facebook’s mission statement further supports the notion that Facebook intended to become a kind of public sphere space. The first mission statement in 2004 was “The Facebook is an online directory that connects people through social networks at colleges.”\(^{33}\) The statement did not change significantly until 2006, when it became “Facebook is a social utility that connects you with the people around you [Facebook is made up of lots of separate networks – things like schools, companies, and regions].”\(^{34}\) In 2008, the mission became, “Facebook is a social utility that connects you with the people around you. [Use Facebook to… keep up with friends and family, share photos and videos, control privacy online, reconnect with old classmates].”\(^{35}\) Finally, in 2009, the same year of the launch of the Like button, the mission shifted to, “Facebook gives people the power to share and make the world more open and connected.”\(^{36}\) By 2009, Facebook had arrived at a statement that used the language of the public sphere. By “making the world more open and connected,” Facebook is demonstrating that it intends to give users the tools to conduct discourse in an unregulated or liberal space. The increasing drive towards an “open” space is


\(^{34}\) Ibid.

\(^{35}\) Ibid.

\(^{36}\) Ibid.
indicative of Facebook’s elevated goals and desires for a platform that can shape a new mode of discourse.

The creation of the “Town Hall” product in 2017 completes Facebook’s public sphere transformation. Described as a tool which “is part of Facebook’s efforts to help build civically engaged communities and make it easier for people to have a voice in government,” Facebook’s “Town Hall” launch followed a “a nearly 6,000-word manifesto where [Zuckerberg] discussed…using the network to increase civic engagement…” Not only has Zuckerberg equated Facebook to a “digital town square,” but he also built a space explicitly for town square or town hall activity. He built a New England meetinghouse within the platform.

For a typical user, the evolution of Facebook’s design would suggest that Facebook had achieved the goal of recreating the public sphere. Facebook seems to solve many of the concerns addressed by Fraser by molding a space that appears to connect everyone in discourse and also allows for the gathering of subaltern counterpublics. This public sphere effect is accomplished through particular features and UX designs.

Previous to the launch of the News Feed product, Facebook was architected as a


conglomeration of disparate profile pages. Users would create a profile, and in order to interact with their “friends,” would find their friends through a search bar and view their wall.

![Figure 8: Facebook early design](image)


The introduction of what was first titled the Mini Feed and then the News Feed, radically altered this architecture. The Mini Feed began by aggregating all of the activity of a user’s friends into one space. If a friend added photos, these photos would appear in the Mini Feed much in the same way that they do today. The News Feed, launched in 2006, added to this content by including organization profiles on Facebook.
The Like button, launched in 2009, changed the user experience of the platform again. Users were now given the ability to Like content created by a friend or a brand. The News Feed algorithm could then adapt over time to serve the user more content they wished to see based on their Likes. The News Feed thus became an all access point to connect and stay on top of the activity of friends and brands, much like the egalitarian access points of the agora and the meeting house.

Additionally, once users could Like the content of their friends and brands, they could begin a form of discourse. In 2010, one year after Facebook launched the Like

button, both *The New York Times* and *The Wall Street Journal* added their first image to their Facebook pages. That two of the biggest news sources in the United States created Facebook pages within the same year not coincidental. With the Like button, users could actually convene in discussion over the politics and news of their country. Much in the same way that newspapers and political journals turned coffee houses into sites for public sphere discussion, so too would the addition of actual news to the News Feeds. The introduction of news media onto the platform transformed the site into a new kind of discursive space. This shift can be understood by imagining the difference between Liking a picture of a friend’s pet and Liking an article about a local election candidate. The act of Liking implies an emotion and an opinion, and when this opinion is applied to politics instead of pets, it changes the gravity of the action. The addition of news articles to the News Feed, and the option to Like an article, created a venue for civic engagement. Another citizen who disliked the article, and who vocalized this disagreement in the comments section of the article, might challenge those who Liked the article. A back and forth dialogue could then begin between these two citizens in the comments section. The Like button infused the News Feed with sentiment and opinion, making Facebook appear as a public sphere space. As a space to discuss politics and news with other American citizens, Facebook seems like a digital public sphere. However, the impact of Facebook’s invisible architecture, materialized through the data
from the 2016 United States presidential election, points to a different conclusion. The methods for arriving at this conclusion will be explored in Chapter 4.
4. Visualizing the 2016 Presidential Election and Facebook

4.1 The 2016 Presidential Election

Chapter 1 through Chapter 3 described the history of the public sphere and the way in which architectural metaphors have permeated throughout physical spaces and online communities such as the BBS’ of the 1980s. By the second decade of the 21st century, Facebook had become entrenched in mass culture. As of 2019, there are 1.59 billion active users on Facebook\(^1\), 169.5 million of which are based in the United States.\(^2\) Since its inception, advertising has taken on an increasingly important role for the company as a means of generating profit. As Zuckerberg proclaimed in his Senate hearing in the spring of 2018, “We run ads,” or rather, his company sells user data and ad space to advertisers.\(^3\) This includes political advertising. Meme culture has also made it increasingly easy to circulate anonymously sourced content for collective amusement. Facebook’s News Feed, as a result, has become a mixture of user generated memes, marketing promotions, news stories, and political advertisements. The result of this mixture is that the distinction between a political advertisement or a user created meme

---

3 Senator Asks How Facebook Remains Free, Mark Zuckerberg Smirks: ‘We Run Ads,’ YouTube (YouTube, 2018), https://www.youtube.com/watch?v=n2H8wx1aBiQ.
is not so clear. The format of Facebook’s News Feed leaves Facebook vulnerable to advertisers who take advantage of this confusing landscape in order to influence user perceptions.4

A prime example of this manipulation can be witnessed in the 2016 United States presidential election. The realization of Facebook’s impact on the election, and Russia’s interference, was uncovered after years of research and is still being unraveled today. Burgeoning suspicion of Russia began in the summer of 2016 when DCLeaks and WikiLeaks published hacked emails from the Democratic National Committee.5 By September, presidential candidate Hillary Clinton “accused Russian intelligence of interfering with the American election, implying that President Vladimir V. Putin viewed a victory by Donald J. Trump as a destabilizing event that would weaken the United States and buttress Russian interests.”6 In January of 2017, following President Donald J. Trump’s election, the United States Intelligence Community published a report titled “Assessing Russian Activities and Intentions in Recent US Elections: The Analytic Process

4 The use of marketing segments to influence voting behavior is not original and has occurred in the United States throughout the 20th century. The Selling of the President, written in 1968, elaborates on this concept further through a first-hand account of the use of television in Richard Nixon’s presidential campaign to sway Americans in favor of Nixon. Facebook and social media stand out from among earlier media formats such as television, newspaper, and radio, because of an advertiser’s ability to micro-target their audience through user data. See Joe McGinniss, The Selling of the President (New York, NY: Penguin Books, 1988).
and Cyber Incident Attribution,” which concluded that “Russian President Vladimir Putin ordered a campaign involving covert intelligence operations and overt propaganda to undermine faith in the U.S. election, disparage Hillary Clinton and help Donald Trump’s election chances.” By mid-January, both the Senate Intelligence Committee\(^7\) and the House of Representatives Intelligence Committee\(^8\) confirmed they were launching their own investigations into the Russian election interference. In March, then FBI director James Comey announced that the FBI was also launching their own investigation into “whether members of President Trump’s campaign colluded with Russia to influence the 2016 election.”\(^9\) Up until this point in time, much of the focus of the media covering these revelations centered on the DNC email hacking, and Facebook was not yet a focal point in the press.

In April of 2017, Facebook released a white paper admitting to the proliferation of fake news on their platform during the election.\textsuperscript{11} The report stated that “Facebook is not in a position to make definitive attribution to the actors sponsoring this activity,” but that Facebook did not contradict the findings of the report from the Intelligence Community.\textsuperscript{12}

By July of 2017, a CNN report revealed that Senate Intelligence Committee member Senator Mike Warner met with Facebook as part of his investigation into Russian election interference.\textsuperscript{13} On September 6th, Facebook “revealed in a blog post that as much as $100,000 in political ads was spent by potential Russian propaganda sites.”\textsuperscript{14} The following day, “[Senator] Mark Warner of the Senate Intelligence Committee said during a panel hosted by the Intelligence and National Security Alliance that Facebook’s report on $100,000 spend by Russian sites was ‘the tip of the iceberg.’”\textsuperscript{15} By late September, special counsel and former FBI director Robert Mueller obtained a search warrant requesting that Facebook hand over 3,000 ads tied to Russian interference.\textsuperscript{16}

\textsuperscript{12} Ibid, 11.
\textsuperscript{15} Ibid.
\textsuperscript{16} Ibid.
Senate Intelligence Committee also invited Facebook, along with Google and Twitter, to testify in a hearing on November 1st about “how foreign actors may have used the social network to influence the 2016 election.”\(^\text{17}\) In October, Facebook handed over the 3,000 ads to Congress and announced that the ads reached as many as “126 million users.”\(^\text{18}\) Facebook testified before Congress in November of 2017, and in April of 2018, a full congressional hearing was held.\(^\text{19}\)

By the time of Facebook’s congressional hearing in April, two reports commissioned by the Senate Intelligence Committee were released which offered a more comprehensive look into Facebook’s role in the election. The reports, titled “The Tactics and Tropes of the Internet Research Agency” and “The IRA and Political Polarization in the United States, 2015-2017,” were authored by third-party experts New Knowledge, and the University of Oxford and Graphika, respectively.\(^\text{20}\) In summary, the reports found that an organization based in Russia known as the Internet Research Agency bought ad space on Facebook to publish ads across the United States that were focused

\(^\text{17}\) Ibid.
\(^\text{18}\) Ibid.
\(^\text{19}\) For more on the Russian interference, see Kathleen Hall Jamieson, Cyberwar: How Russian Hackers and Trolls Helped Elect a President: What We Don’t, Can’t, and Do Know (New York, NY: Oxford University Press, 2018).
on United States social issues. These ads were, moreover, meme-like in their appearance and appeared visually seamless amongst other forms of Facebook content.

Figure 10: IRA Ad Example 1

Figure 11: IRA Ad Example 2
According to the report from New Knowledge, “The IRA began its operations in mid-2013 in St. Petersburg, Russia. Run like a sophisticated marketing agency in a centralized office environment, the IRA employed and trained over a thousand people to engage in round-the-clock influence operations, first targeting Ukrainian and Russian citizens, and then, well before the 2016 US election, Americans. The scale of their operation was unprecedented—they reached 126 million people on Facebook, at least 20 million users on Instagram, 1.4 million users on Twitter, and uploaded over 1,000 videos to YouTube. As Department of Justice indictments have recently revealed, this manipulation of American political discourse had a budget that exceeded $25 million USD and continued well into 2018...”\(^\text{21}\) Additionally, “[the] themes selected by the IRA were deployed to create and reinforce tribalism within each targeted community; in a majority of the posts created on a given Page or account, the IRA simply reinforced in-group camaraderie. They punctuated cultural-affinity content with political posts, and content demonizing out-groups.”\(^\text{22}\) The use of Facebook by Russia to influence the election was a complex effort that reached approximately 40 percent of United States citizens.\(^\text{23}\) By 2018, it became clear that a propaganda scheme had effectively been


\(^\text{22}\) Ibid.

\(^\text{23}\) Number based on calculation using the 1.59 billion active users on Facebook and 169.5 million users in the United States, cited earlier in this section.
distributed through Facebook’s platform, consequently disturbing the American political mindset.

The analyses in these reports were further confirmed in 2019. The “Mueller Report,” or the report created by Robert Mueller’s Special Counsel team, was released in April of 2019. The report, among many insights, found that the “Russian government interfered in the 2016 presidential election in sweeping and systematic fashion.” Additionally, “The IRA conducted social media operations targeted at large U.S. audiences with the goal of sowing discord in the U.S. political system...Dozens of IRA employees were responsible for operating accounts and personas on different U.S. social media platforms.”

The Senate Intelligence Committee released both volumes of their report in October of 2019. According to the second volume, “Analysis of the behavior of the IRA-associated social media accounts makes clear that while the Russian information warfare campaign exploited the context of the election and election-related issues in 2016, the preponderance of the operational focus, as reflected repeatedly in content, account names, and audiences targeted, was on socially divisive issues—such as race, immigration, and Second Amendment rights—in an attempt to pit Americans against one another and

against their government.” 25 Both reports from Mueller and the U.S. Senate Intelligence Committee cite Facebook as a tool that was used by Russia to divide the country during the election.

From all five reports, what becomes clear is that the Facebook ads created by the IRA were meant to influence United States democracy by dividing the country into tribes. The word “tribe” is here derived both from the report commissioned by the U.S. Senate and from a UN address given by President Barack Obama in 2016. Obama states, “We all face a choice…We can choose to press forward with a better model of cooperation and integration. Or we can retreat into a world sharply divided, and ultimately in conflict, along age-old lines of nation and tribe and race and religion.” 26 Tribe in this context is meant to refer to groups characterized by “polarization, insularity, vengefulness, and lack of compromise.” 27 The statement that the IRA attacked American tribes is therefore indicative that the IRA attacked individuals based on group-think and group-ideology.

This issue of tribalism can be further analyzed within the context of the public sphere. As discussed previously, public sphere debate thrives in a space that is diverse.

---

Debate between those of your tribe is the opposite of diverse. This type of debate acts as a kind of echo-chamber by reinforcing a specific viewpoint. The way in which tribes or siloes can dismantle the public sphere can be better understood by tying the Russian constructed tribes to geography, a data visualization which is lacking from all five reports.

By mapping the targeted groups against geography, the falsely constructed public sphere spaces are materialized. These fake public spheres demonstrate how Facebook users believed they were part of a diverse public sphere community but were in fact operating in globes of deceit. Although each report details how certain groups were triggered with incendiary political topics, the way in which the IRA’s methods dismantle the diversity of the public sphere is difficult to imagine and is more easily conceptualized when tied to physical space. Space created from data that is intangible, and the discourse that results from it, is not easy to see, hear, or feel. Data visualization will help to show the constructed virtual public sphere spaces because it renders material architecture that is immaterial.

28 The method by which Facebook’s design enacted this type of debate will be discussed in greater detail in Chapter 5.
4.2 Visualizing Russian Hacking on Facebook

The U.S. House of Representatives Committee on Intelligence originally published the data visualized in pdf format. PDF versions of the Facebook IRA data were downloaded from the public site hosted by the U.S. House of Representatives Committee on Intelligence. Quarters one through four of 2016 were collected. The 2016 pdfs were downloaded and uploaded into the OCR software Abby FineReader. Each metadata criteria field attributed to an ad was extracted from pdfs and pulled into an excel document. This data was then cleaned through the editing software BBEdit and downloaded as a tab separated file, which was then uploaded into the software tool OpenRefine for further editing.

In order to visualize the tribes created by the IRA, this study looked at the ad targeting fields for each ad. There were too many ad targeting fields to effectively visualize the ad data against the location metadata field.
The ad targeting fields specific to user behavior ranged from “Behaviors,” “Interests,” “People Who Match,” “People Who Match Behaviors and Must Also Match Interests,” “People Who Match Interests and Must Also Match Behaviors,” as well as “People Who Match Connections.” Any of these fields were used by Facebook to create various levels of granularity for ad targeting. In order to see macro trends within the data, these fields were collapsed into a category called “Combined List.” This step was performed by finding commonalities between the various ad targeting fields.

Based on the fact that the data represents targets that were meant to sway the US election, attention was paid to descriptions that typically influence voting behavior, such as identity or position on social issue. Two major themes emerged amongst the ad targeting fields. The first category focused on demographic groups defined by ethnicity,
religion, gender, sexuality, and political affiliation. The second category focused on social
topics such as immigration, police brutality, or the right to bear arms. The two groups
occasionally overlapped, and these overlaps were accounted for as well.

People Who Match: Interests: Zaid Shakir, Muslims for America or Abu Eesa
Niamatullah

Figure 14: Example of Group 1

People Who Match: Interests: Independence or Patriotism

Figure 15: Example of Group 2

The way in which the naming convention for each group was constructed can be
further elucidated through various examples. The group “Pro-2nd Amendment” was tied
to the “People Who Match Interests” ad targeting field that states, “Right to keep and
bear arms, The Second Amendment, Stop Illegal Immigration, National Rifle Association
or Donald Trump for President.” The group “Republican” relates to “People Who Match
Interests” fields like “Conservative News Today, Young Republicans, The Conservative,
The Tea Party, Donald Trump, Republican Party (United States), Gun Owners of
America, Donald Trump for President or College Republicans.” Although both ad
targeting fields make mention of Donald Trump, one field also makes mention of the
social issue of the 2nd Amendment. The two groups were therefore separated into “Pro-2nd
Amendment” and “Republican.”
Another example of how the “Combined List” was created can be seen in the ad targets related to the Tea Party. There were various ad targeting fields related to this topic such as: “Patriot (American Revolution) or Tea Party Patriots,” and “Black Tea Patriots, Black Knowledge, BlackNews.com, Black (Color) or HuffPost Black Voices And Multicultural Affinity African American (US).” Both ad targeting fields make mention of the Tea Party, but one ad targeting text also makes mention of ethnicity and race. The groups were therefore categorized as “Tea Party” and “African American Culture and Politics – Black Tea Patriots,” respectively. The name of each category in the “Combined List,” lastly, was extracted from the ad text directly to avoid editorializing. As in the examples above, the ad text ““Patriot (American Revolution) or Tea Party Patriots” became the group “Tea Party.” The ad text “Black Tea Patriots, Black Knowledge, BlackNews.com, Black (Color) or HuffPost Black Voices And Multicultural Affinity African American (US),” became “African American Culture and Politics – Black Tea Patriots.” The naming convention of each group relied on the text of the ad targets created by the IRA and Facebook. The naming conventions therefore attempt to represent the intentions of the IRA.

The first version of the categories within the “Combined List” was derived prior to reviewing the data analysis published by the University of Oxford that was commissioned by the Senate. Upon reviewing the University of Oxford’s study, certain
categories were edited to include the label of “Culture and Politics.” The University of Oxford used these labels, and they more accurately describe the ad text pertaining to these ad targets. Although the ad target categories derived in the “Combined List” are very similar to the University of Oxford’s categories, there are some key differences between the two studies. The University of Oxford reviewed the data obtained by the Senate, while this study reviewed only the portion of the ads that have been made available to the public by the US House of Representatives. The University of Oxford also did not publish which ads it grouped into their categories, so it is not possible to see where efforts are duplicated. However, the similarities between the findings of the two studies reaffirm the veracity of the categories created.
Figure 16: Final list of categories derived, ordered by number of impressions

<table>
<thead>
<tr>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American Politics and Culture</td>
</tr>
<tr>
<td>Black Identity and Nationalism</td>
</tr>
<tr>
<td>Campus Politics</td>
</tr>
<tr>
<td>Conservative Politics and Culture</td>
</tr>
<tr>
<td>Immigration</td>
</tr>
<tr>
<td>Incarceration</td>
</tr>
<tr>
<td>Internet Culture</td>
</tr>
<tr>
<td>Latin American Culture</td>
</tr>
<tr>
<td>LGBT Rights &amp; Social Liberalism</td>
</tr>
<tr>
<td>Music Streaming</td>
</tr>
<tr>
<td>Muslim American Politics and Culture</td>
</tr>
<tr>
<td>Native American History and Culture</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Patriotism</td>
</tr>
<tr>
<td>Pro-gun Politics</td>
</tr>
<tr>
<td>Self Defense</td>
</tr>
<tr>
<td>Social Justice</td>
</tr>
<tr>
<td>Texan Identity</td>
</tr>
<tr>
<td>Veterans &amp; Policing</td>
</tr>
</tbody>
</table>

Figure 17: The University of Oxford's categories and data


The categories were arranged by number of impressions in order to demonstrate the number of views for each topic. “Impressions” is here defined as how often an ad was
shown. The “Combined List” category was finally paired against the “Location” category to create the visualization. The visualization was uploaded to Tableau Public.

![Image of Interactive United States map with Facebook Data](https://public.tableau.com/profile/caitlin.burke8306#!/vizhome/FinalWorkBook_11_23/Dashboard1?publish=yes)

**Figure 18: Image of Interactive United States map with Facebook Data**


### 4.3 Insights and Findings

The data visualization tells a unique story. Three distinct methods seem to have been used by the IRA. Groups that were in the majority in their states (were right-leaning in a red state, for example) were further incensed through ads that supported

---

their viewpoints. Conversely, blue leaning targets were targeted across all states. In summary, red leaning targets were pushed further red and chaos was created within blue leaning targets. The efforts of the IRA, overall, worked like a “smoke and mirrors” campaign by distracting, through isolation and diversion, blue leaning audiences away from the goal of electing Hilary Clinton, while further pushing red leaning audiences towards electing Donald Trump. This kind of tactic has been noted as one that is also often used by Donald Trump in his rhetorical strategy when he, for example, creates a spectacle through conspiracy theories and hyperbolic word use.30

The tactic of the IRA campaign can be seen in certain states. For example, the “Pro-2nd Amendment” group was typically targeted in states that are conservative. This indicates that this group was further justified in their “tribe” through messaging such as “Protect the 2nd. Without it, you won’t have any others! Join! Defend the 2nd.” In contrast, blue leaning groups were targeted across states. The group “Bernie Sanders” was targeted in Kansas, a red state.

The connection between geography and the ad targeting is also demonstrated in examples of ad text that asked for a call to action. In North Carolina, a swing state, ad text calling for protest against police brutality was published on September 21st, 2016. Days before the publishing of these ads by the IRA, protests began in Charlotte for Keith Lamont Scott, who was shot and killed by a police officer while the police officer was looking for a different man. This indicates that the IRA was watching American activity
and seized upon the activity that was already occurring in order to further stoke the flames of the protesters.

The visualizations also support some of the findings from previous reports, further verifying certain pieces of information. All investigations including this study found that the IRA exceptionally targeted African Americans. The previous reports provide tremendous insight into the quality of this targeting, so it is not valuable to try to repeat these efforts here. This study, in summary, found over 10 million impressions attributed to the category of “African American Culture and Politics.” The prior studies also found that African Americans were targeted with ads that tried to suppress the African American vote. This study found similar results, in messaging such as “Black people have no place in the coming election.”

It was difficult to tie the ad targeting to voting patterns, but one state in particular did appear unique amongst the others. Michigan, which is typically a blue state, switched to red in the 2016 election. Among all of the states targeted, Michigan was the fourth most targeted state, with over 200,000 impressions attributed. This is a small number in comparison with Michigan’s population, but it is not possible to fully understand the reach of the campaign. Facebook has not published all of the metadata related to the ads, so conversion rates are not available. However, it is worth noting that ads were likely shared with additional audience members through other social media tools, indicating
that this number is possibly higher than projected. This fact is not enough to tie the IRA propaganda with swaying the American vote, but it does demonstrate a connection between a state that was highly targeted and an unusual voter turnout.

In summary, the architecture of Facebook, despite dissembling as a public sphere, worked to pull it apart in the 2016 election. As Jonathan Zittrain describes in his article, “Facebook Could Decide an Election Without Anyone Ever Finding Out,”

…consider a hypothetical, hotly contested future election. Suppose that Mark Zuckerberg personally favors whichever candidate you don’t like. He arranges for a voting prompt to appear within the newsfeeds of tens of millions of active Facebook users—but unlike in the 2010 experiment, the group that will not receive the message is not chosen at random. Rather, Zuckerberg makes use of the fact that Facebook ‘likes’ can predict political views and party affiliation, even beyond the many users who proudly advertise those affiliations directly. With that knowledge, our hypothetical Zuck chooses not to spice the feeds of users unsympathetic to his views. Such machinations then flip the outcome of our hypothetical election…The scenario imagined above is an example of digital gerrymandering…Digital gerrymandering occurs when a site instead distributes information in a manner that serves its own ideological agenda. This is possible
on any service that personalizes what users see or the order in which they see it, and it’s increasingly easy to effect.\textsuperscript{31}

Although in the election it was Russia, and not Mark Zuckerberg, who placed the political advertisements, the effect of Facebook’s system architecture was the same. Facebook created gerrymandered tribes. Moreover, these tribes were mostly the subaltern counterpublics described by Fraser. In a kind of unfortunate reversal of public sphere activity, the subaltern counterpublics that are so needed for true public sphere discussion were seized upon by the IRA through Facebook’s architecture and further removed from the public sphere. The United States, as a result, dissolved into balkanization and dysfunction.

5. Facebook’s Digital Architecture

5.1 The News Feed and the Like Button

The same designed features that work to make Facebook appear like a digital public sphere space, the News Feed and the Like button, are actually products that help to support this system architecture. In the book, *The Filter Bubble: What the Internet is Hiding from You*, author Eli Pariser describes the “filter bubble” as,

the new generation of Internet filters [which look] at the things you seem to like—the actual things you’ve done, or the things people like you like—and tries to extrapolate. They are prediction engines, constantly creating and refining a theory of who you are and what you’ll do and want next. Together, these engines create a unique universe of information for each of us...which fundamentally alters the way we encounter ideas and information.\(^1\)

As users Like content on Facebook, Facebook collects data about the user’s behavior and this data alters the platform’s algorithm so that the platform shows each user more content that they find appealing. This invisible architecture behind Facebook’s system creates a unique experience for each user. Over time, “the result is that conversations between [friends]...are overrepresented, while conversations that could introduce [users to] ideas are obscured.”\(^2\) A user’s worldview on Facebook becomes increasingly myopic and reflective of their own point of view, eliminating the diversity needed for public sphere discourse. Rather than engage with another citizen who might have a viewpoint

\(^2\) Ibid, 83.
contrary to his or her own, users become siloed, hearing the same viewpoints over and over again.

The creation of filter bubbles generates the ability to micro-target, which aggravates this issue. This cycle of logging-in and experiencing an increasingly personalized platform that instigates the desire to login again creates a perverse cybernetic loop: the platform gains a better picture of each of its users and adjusts to the user as the user adjusts to the platform. Facebook then sells this user data, the product of the loop, to advertisers who want to micro-target their audience. The model of collecting, segmenting, and selling user data, turns public sphere communication into a commodity, merging the public sphere with the sphere of the economy.

As Facebook profits from the inorganically produced public sphere discourse, a hierarchy forms that becomes increasingly anti-egalitarian. The design of Facebook makes users feel as if they are in control of their experience within the platform while they engage in conversation with others, but it actually works to collect data from the users. As more data is extracted, this fungible resource both reinforces a user’s experience of the platform, and creates a profit for Facebook. This exchange formulates a cycle in which Facebook acts as a kind of driving force that demands production from its workers, the users. The users, who have unknowingly entered this cycle, become increasingly indebted to the platform, and cannot break free. The cycle thus repeats.
In the example of the agora, the coffeehouse, the meetinghouse, and The WELL, it is difficult to imagine an inhabitant or user stuck in a cycle from which they cannot escape. This difference is the result of each system’s design. The agora, the coffee house, and the meetinghouse, were relatively open systems that supported the discursive needs of its inhabitants. We can imagine this as we think about moving around the open plaza of the agora, sitting down next to another patron at the coffee shop, or walking to the center of town for a town hall meeting in Colonial New England. They were, however, also flawed systems because they did not include all kinds of people. The problem of their exclusiveness seemed to have been resolved by virtual digital public sphere spaces like the WELL, which functioned with a flat architecture. Yet on Facebook, users are attracted by the idea of public sphere discourse, but are ultimately removed from the public sphere. All users are excluded from the public sphere, making Facebook the most insidious public sphere model within the spectrum created by the previous models. How, then, can a virtual public sphere be designed today?

5.2 The Materiality of Technical Objects and Ethics

In the article, “Materializing Morality: Design Ethics and Technological Mediation,” author Peter Paul Verbeek discusses how the boundaries of a technological system influence the behavior of its users. He concludes that designers must therefore ethically account for their users. Verbeek bases his assessment of technology on the
script concept developed by Madeleine Akrich and Bruno LaTour. According to Akrich and LaTour, “Like a theater play or a movie...technologies possess a “script” in the sense that they can prescribe the actions of the actors involved....Designers anticipate how users will interact with the product they are designing and, implicitly or explicitly, build pre-scriptions for use into the materiality of the product...” Although it is not obvious to users at first, the way in which we interact with a technological object has often been built into the materiality of its system. Moreover, when technologies are built, there is an emphasis on whether or not the technology should “solve a problem or fill a need.” Designers can have a large impact on the behavior of their users. This is no more evident than on Facebook, where designs are focused on building a space which supports the ad-profit model. Facebook’s design, while it fulfills a certain function, must take into consideration its ethical implications. It must consider how it sells the idea of the public sphere.

---

6. Conclusion

The public sphere is an ideal, and all material constructions of an ideal are flawed because they can never quite achieve perfection. The public sphere has taken many different forms over time, and some are better than others. The agora, the meetinghouse, the coffeehouse, and the WELL, as discussed previously, have certain advantages and disadvantages. However, Facebook, when compared to these examples, is the most manipulative version of the public sphere. Not only does the platform sell the idea of the public sphere to its users, but it also divides users from one another in a bubble of their own discursive thought processes. As of October 2019, Zuckerberg has stated that his company will continue to run political ads without fact checking the ads. He was quoted as saying, “‘People having the power to express themselves at scale is a new kind of force in the world — a Fifth Estate alongside the other power structures of society...the long journey towards greater progress requires confronting ideas that challenge us...I’m here today because I believe we must continue to stand for free expression.’”¹ Yet, the lack of attention dedicated to the architecture and design of Facebook’s system hints that previous outcomes are likely to happen again. Only when the system itself has changed can the issue of the public sphere be fixed. Public sphere

space can be created online, but egalitarianism and diversity must be embedded in the system architecture in order for the space to be successful. Public sphere discourse must remain unique and unadulterated from outside influences. Under Facebook’s current model, a true public sphere is impossible. However, certain adjustments to Facebook’s architecture would help to solve this problem. The removal of the News Feed, for example, would mitigate the possibility of discussing political events in a “public” forum. Political advertisements could also be removed, as the CEO of Twitter Jack Dorsey recently suggested. The naming conventions on Facebook could additionally be altered. A simple UX nomenclature change from “News Feed” to “Your Feed” would bring to a user’s attention the personalized quality of the content displayed. These small adjustments can help to extricate social media platforms from the realm of the public sphere. It may also be time to abandon Facebook altogether and look towards newer technology. Blockchain social media systems in which a peer-to-peer network of nodes must vote to enact changes to the system, offer automatically democratic spaces. This conversation is on going and ever-evolving, yet as communication remains online, the design of space must account for political action as well. Spaces, through their design, control their users, and when this space impacts democracy, it is essential that it is designed with its citizens in mind.
Appendix A

Excerpt of Interview between Caitlin Burke and Kevin Kelly, July, 2019

Burke [00:08:41] I think at one point you compared the WELL so a salon, or something like a salon?

Kelly [00:08:58] Yeah. Not really [Laughing]. Yeah it’s a salon - I mean it had attributes at the time. You know again the WELL is actually still going. So that’s the one thing we should kind of clarify. The WELL is still going. It’s not what it used to be or at least, I don’t think it’s what it used to be but I haven’t been on in many many years, so for all I know it could still be the you know it could be back to what it was but most of my conversation will be about during that time when I was on it and while I was still using it and had some - which was mostly when I had some connection or some influence on it. So yes, at that time that we’re talking about there were aspects of WELL that were what like what I would think of as a salon, but in fact I’ve never been in another salon besides the WELL. So, I mean so I’m comparing it to some theoretical idea of what a salon is. So compared to that kind of fantasy salon I think yes, the WELL had many attributes of a salon.

Burke [00:10:26] And why do you think that there was that kind of environment in the community? Was there something specific about the design of the environment that helped create that kind of intellectual conversation?

Kelly [00:10:43] Well - there were some deliberate things and some inadvertent things. I think the deliberate things was we seeded the community with people who were intelligent and articulate and could write. We gave free passes basically to journalists and writers because the medium was words, and so to kind of up the quality and maybe serve as role models and to stimulate others - there was a high percentage of authors and writers. Now it wasn’t like we were kind of like we were that smart knowing that that was what we were doing. It was mostly that we wanted the press. You know we were giving passes to loud mouths. To people who talked about it in other media. And so it was a way of advertising so to speak. That was the original idea but the secondary consequence, the unintended consequence was that you know we were actually doing this other thing of instituting kind of a culture of interesting writing. And it turns out that that’s you know that in a certain kind of weird way that we saw later on is that there
are a lot of really great writers who you would never have seen because the bar to getting published was so high and the rewards of writing a long letter to a friend were so low. And that’s a lot of trouble if one person read it. But on this new medium where anybody could write and a lot of people could see it you suddenly kind of like unveiled the fact that there were thousands of really great writers that you would never have encountered or seen that we’re now given and kind of equipped with the tools. to share and that’s sort of the whole message of the Internet which has been of this fabulous writing, compared to you know what it was coming out of the published world on paper.

Kelly [00:13:15] There were just so many more interesting people with things to say and they could say them very well in their own voice and that was sort of the revelation on the WELL was, ‘Oh my gosh everybody is kind of a closet writer!’ And so part of that energy was not, I mean yes we did select people who were good at it but we also discovered that a lot of people were really good at it if you gave him these new tools, and so that was the sort of the rush, the thrill, where people were logging on and there was this like all these interesting people saying interesting things with these interesting opinions. And then there was a negative side which we’ll get into. But there was there was this high energy and part of it was everybody kind of realizing that there were a lot of really interesting things to say. And this pool allowed people who maybe ordinarily in a conversation around a dinner table wouldn’t get to say something or would be shy and there’s another aspect to this world that we also want to mention which is that people kind of behave differently online than they did in real life. So it’s part of what we saw in the salon, part of the reason why there was this sort of eruption was not something that we were doing. I mean the part was because we seeded it, but it was also in part because that’s what the technology did. It was sort of, there was a kind of a leveling and a certain sense or uplifting of everybody. Allowing them to maybe reveal their inherent interestingness and communicate that. So there was, and that was a thrill for people when they come on because there are in some little town and they think everybody is dumb and stupid and then they log onto the WELL and everybody there is brilliant and then they become brilliant too. See and then the next person realizes, ‘Oh my gosh everybody is amazing!’ And then they become amazing.

Kelly [00:15:30] So I think that’s the energy that was you know that we unleashed so to speak with this technology and now it’s you know it’s almost cliche where you have you know I mean we go on the Internet - there’s YouTube or whatever. I mean there’s just this amazing amount of content not all of it is brilliant but there seems to be a far higher percentage than we kind of imagined thirty years ago. You know 30 years ago the idea
that you know there's only a few people who could write really well and they had to be kind of blessed to do it, it's like being a super athlete or something. And now I think there's more of acceptance that, 'No actually there's, you know, most people and many more people are interesting and have something to say it well.' Of course there's always people who can say it take better but it's sort of I don't know, for me, it's some of the natural superpowers of being a human.

**Burke [00:16:39]** Do you think that the quality of content has changed since then, in terms of what people are posting saying and publishing, in online communities today?

**Kelly [00:16:50]** I think it's better. I think it's getting better all the time. I think what happens is that any writer will tell you that the more writers you read and spend time with, it kind of raises the bar. You have to be better. Now there's some like a moving average is higher. The thing about it is, is that most writing even by really good writers is not great. You know there's a, there's just a rule that the great writers write great things are writing a lot of it and most of it's just OK. But that's the only way you can get really great stuff is to produce a lot of it. So part of the answer has been distant quantities. I mean this is one of my arguments about why TV was sort of stuck and gotten really bad and when it got stuck was that it became so expensive to do that it could not afford to take risk to be really bad. But the fact that it could be really bad it meant that also could be really great. It was kind of imprisoned in mediocrity by the expense. There so much - so expensive that that kind of rule by committee kind of kept it in the middle. So there was it was OK but it was there was not enough bad TV. The thing about writing was that there was lots of bad books there were lots of bad websites whatever it is. But lot of bad allows the really great to happen. And so the problem with TV in the 70s, 60s and 70s, and early 80s was that it couldn't really be it was just too expensive. I mean really bad. And so, when YouTube and others came along it allowed video to be made cheaply so you can have some really bad bad stuff. You can take risks and that allowing bad stuff to happen it meant that you also allowed some really great stuff to happen. So that's the sort of thing about writing is that on average, most of the writing is is going to be average. But, the fact that anybody could write and publish and set up a blog or make a Twitter thread means that the space for really great stuff has been enlarged and there's more great stuff than average than before. And I think on average that lifts the general average of the writing, the quality of the writing. I mean, most young people today have written far, probably a thousand maybe ten thousand times as much as their grandparents ever wrote. I mean people are writing all the time! They're writing short stuff. They're writing little messages. But how much writing did your grandparents do?
Kelly [00:20:11] They might have written - you know maybe they were kept a diary. That was very unusual. You might have read a letter every now. But most people are writing all day! And so, that is going to just lift the overall quality even though most of it's just going to be average which was gonna be mediocre. I mean you don't need to be brilliant all the time. So anyway, I think in general that the average quality of writing has improved. And by the way you can actually test this. You can actually you know there are measurements, scholarly measurements, to assess the clarity of writing. This is what they use in grading the SAT. There's ways to actually test this and so it would be interesting to you actually take a random sample of people's letters to their friends or whatever kind of writing was done in the 60s and then do it now. And I suspect - I can't prove it - but I would suspect that the average has risen.

Burke [00:21:30] So in a sense, you're almost saying that - you're accepting - the good outweighs the bad. That the trolls and negative comments online, they kind of do not outweigh the positive effects.

Kelly [00:21:48] The way I put it is the price of really great stuff is really bad stuff. And that price, you have to pay it. In other words, it's like freedom. Right. So yeah the price of freedom is that you allow people to protest or to you know do crazy stupid stuff but overall the gain of that kind of freedom is something and you try to minimize the bad and try to minimize that bad behavior, the crime, you know all that stuff, you try to minimize. But you can't eliminate, you know eliminating it with that is, you don't have the freedom. So the same with great works. I think the cost of the price of great works is that you have to tolerate a lot of garbage. And in a certain sense the more greatness you want the more garbage you have to tolerate.

Burke [00:22:53] What is your opinion of Facebook? As a tool?

Kelly [00:23:04] They are still trying to figure out what it's good for. Most technologies take at least a generation or two to see what they're really good and what they're bad at. What the harm is. What the great thing is. And they often change in their usage over time. You know it's a very very difficult thing that they're trying to navigate which is how do you have a civilized conversation without censoring everybody. I mean so you want to be able to say almost everything but not everything and so like how do you know. What's that line? The line can be drawn if we have a consensus but we don't have a consensus right now. So we're in the process of coming up with a consensus about how do we want to model, or manage, or govern speech and talk? And so the answer is
we've never done this before at this level of a billion people. We've had small communities who have always regulated speech, govern speech, but we've never done it at this scale. And so how we do this scale is unknown. We don't know how to do it. You don't know how to you know to guarantee the safety of free speech while maintaining the safety of peace.

Kelly [00:24:54] You know the Facebooks of the world believe that with this technology that the solution to that problem is technological, which I think is correct, but there is also the you know the technology of social conventions, etiquette, norms, and manners which are also part of that. And that's also kind of technology, its a soft technology. And so I think both are needed. And so it's very hard. I mean we can wire it into code as soon as we know what the code is. We can the law into these systems as soon as we know the law is but the law is really based on social convention and we don't know what that is yet. We don't have a consensus. And so that's what we're undergoing right now. I think there is a tendency to put this in, incorrectly, into moral terms. Because one of the great innovations of Silicon Valley was the fact that de-moralized failure. I mean the whole thing about Silicon Valley is that you fail fast forward. You you try things. And if you fail or lose a lot of money you're not penalized it's not a moral lapse. You aren't evil person because you lost investors 20 million dollars, this is just part of the game. This is like science, you do an experiment that doesn't work that's how you learn. You learn, you make progress by failure by a series of failures. That's the scientific method, that's art and discovery is that you can have dead ends. You're going to have products that work well. Well, we're doing it in social media. We're trying things that don't work. And so when they don't work people are very very fast to declare this is evil, bad people, moral lapse. But in fact it's just, it's we don't want to do that. We don't say 'Well OK. We need a correction. Let's do something different. Let's reduce harm in a different way.' And so that's the things going on right now. So there some - you see there might be some harm and I'm totally for continuous measurement, continuous evaluation where we want things to be evidence based rather than what we can imagine going wrong. So in terms of Facebook, well let's look at the evidence as the scientific scholarly evidence of where's the harm. So right now most people are upset about what they could imagine might happen versus if we talk about what actually happened. So they say the Facebook and Cambridge Analytica and the 2016 election. OK. So what is the - there is no doubt that Russia tried to interfere in the election but did they have any influence on the election?

Burke [00:28:08] I don't know. I'm trying to figure that out [Laughing].
**Kelly** [00:28:10] Well the question who had more effect on the election, Facebook or Fox News? I mean we actually can see, we have measurements about the influence of Fox News on election. But we have very little evidence that Facebook or the people on Facebook or the Russian bots that actually influenced anybody's vote. So while they clearly did attempt it - anyway all I'm saying is that in terms of evidence based decisions about evaluating technology a lot of people's ideas are like they're imagining what could happen which is you know that's a natural thing. But that's not enough to govern technology we need to we need to actually have apps, you know we actually to have scientific falsifiable evidence. That was a rant! [Laughing]

**Burke** [00:29:28] I mean it was a very hefty question, a big question. [Laughing] I think at one point you described the design goals of the WELL and two of the goals were that it would be self-governing and that it would be a self-designing experiment.

**Kelly** [00:29:54] Right.

**Burke** [00:29:54] Do you think that those rules could be applied to Facebook?

**Kelly** [00:30:00] First of all that the world was never self-governing. So the WELL really made really no attempt to be democratic. I mean we never got there. It was just a design goal that I would say we failed at. There was another version of the WELL one point, I think it's called the river where they wanted to take it over like a co-op and have you know it be run - and that's the problem with companies or institutions that are self-governing, it's very difficult to do. It's, yeah I mean there's very little successes of truly democratic we'll call them companies or institutions other than you know a basic government. Because because they do become governments - So that's not something that the WELL ever achieved. And so I would be dumbfounded if something as large as Facebook with you know almost a billion and a half people could be self-governing because I mean it's like what would be the mechanism? I mean I'm a huge fan of global governance. You know no none of my friends on the left think this is a good idea. None of my friends are the right thing is a good thing. Everyone thinks it's an insane idea. I think it's an absolutely essential thing that we have to do but I'll be the first to say I've no idea how we could have a representative democracy with 7 billion, 10 billion people. Where do you start? I mean the U.N. is probably one the least democratic institutions on the planet. We don't vote for anybody - representatives there or vote for anything in the U.N. So it's hard to see with a platform as big as Facebook how self-governance would even logistically operationally work. But that doesn't mean it shouldn't happen or won't happen. I believe that we were going to move towards that and it's possible that...
move toward self governance or towards democracy within a platform like that would be helpful but I think you know I think that's a question you might want to ask some political scientists who have studied different systems, how they would scale up something like that. I don't have any answers. I haven't researched it.

Kelly [00:33:12] You know there's Glenn Weyl and some others who have some interesting ideas about other forms of voting. They call it 'Quadratic Voting' it's very complicated which they say are ways to kind of bring equality and a little bit more fairness into the kind of scale of things you use. So there are people thinking about it but that's a whole another area that I'm not an expert. About how you would have a democracy at that scale. So I just want to say that the WELL did not solve that problem. That was that was part of the design that never happened.

Burke [00:34:04] Would you describe the WELL not as democratic but as potentially egalitarian? Being that all users were equal in the system and had equal rights?

Kelly [00:34:16] Well, I should say that it was maybe more egalitarian than say other forms of publishing and broadcasting. But, there were moderators that had powers. There was a staff who were on and who were contributors and they had power. Other powers. So it wasn't that it was like completely 100 percent flat, and that there was everybody was equal. Some people were more equal than others. But it was much flatter than trying to get your word out through a book or a magazine or a newspaper or anywhere else. So it was far far flatter but it wasn't absolutely flat.

Burke [00:35:32] I think the reason that I keep going back to this idea of democracy is because when I look at Facebook, something I think about a lot is the News Feed and the kind of hierarchy of information that comes through the News Feed and how your interaction with the system manipulates that hierarchy over time to show you more of what you like and yet something like in the WELL or a Bulletin Board System there's really no hierarchy between pieces of information being that you could - you know - post something and it would always be posted ahead of whoever posted last with a timestamp. So I find that kind of interesting in terms of how information is displayed and who sees what and I guess there were private conferences in the WELL but would you maybe say the WELL was more egalitarian staring then something like Facebook because of that information hierarchy?

Kelly [00:36:33] For me it's a matter of scale. Like if you have your desktop or like if you were having a party in your house or even a wedding where there is several hundred
people, you can kind of handle things without having to make up a hierarchy of who has access to you. Anybody can walk up and talk to you. You don’t need any gatekeepers. But when you have 2 billion people, that scale - you know everybody is open anybody can nail anybody else - it just doesn’t work. And so it’s the scale that drives the heart. You have to have these like you know you can have your all the files in your desktop if you wanted to be there very many files, but if you have two billion files you’ve got to have some nested hierarchies. You have start putting things within things and having ranks of hierarchy. It’s really the only way to in some ways to structure things. Google does it fairly flat in terms of search. There’s no inherent hierarchy but there is when the rankings come out and so there there’s just - the thing about the WELL compared to Facebook is that it’s not really fair to compare the two because one is just kind of a village. The other one is the whole planet. And, you can do things in a village scale. You simply can’t do it a the planetary scale. There is no way around having filters, hierarchies, systems layers, you know you can’t build a human body without having a hierarchy right? I mean you can make a bacteria, can have no hierarchy. They’re just cells. The sooner you get to higher organisms you start having a hierarchy of cells - tissue - tissues make organs - organs make your body. You have at least five hierarchies. So if you want something as complicated as a human body you’re going to have a hierarchy of processes. And that’s if you want a planetary civilization, you have to have these things. If two billion people can email two other billion people all day lon, you have to have some system to process that. And so we’re going to have all kinds of News Feeds and filters and permissions and rights and it’s called civilization. We have etiquettes, we have all kinds of things that we’ve invented to deal with conflicts which are inevitable, to deal with news. So I think the idea of all the WELL this little village, they didn’t have - sure as a little village you know you don’t need to have an army to protect a little village but you might need armies on the planet. So I’d be very distrustful of thinking that all the lessons of the WELL applies to something on a planetary scale.

Kelly [00:40:43] Now you know you could imagine a platform that maybe was a tissue of little WELLs. But those little Wells would have to form some meta organization and you would have hierarchies there. I’m not that optimistic that you could take the flatness of the WELL to anything at the scale of billions of people.

Burke [00:41:29] Do you think that that current ranking system that Facebook uses - Do you think it benefits the users or the company? Or is it mutually beneficial? Where they’re showing you content but basically kind of flatters you in that News Feed. It’s like everything that you want to see or that you agree with, or really anything that they think
that you'd actually engage with more and therefore you hand over more data in that kind of like feedback loop system.

**Kelly** [00:41:56] Yeah well I don't know very much about the actual algorithm. I'm not sure anybody does outside of Facebook. But my understanding of it is that they're trying to optimize engagement. They're not actually trying to optimize flattery. They're actually trying to optimize engagement. So, sometimes people engage with things that they disagree with. Outrage. You know that's why -Twitter - Twitter's kind of an outrage machine. People are engaged with stuff that infuriates them. They're spending more time on it. They're more engaged. But it's not really about. Flattery. Although flattery is probably a large part of the other time. So engagement can go lots of different ways. And, I think if maybe you're a kind of person where engagement to you means you know more like you. Maybe that's what you'll get. But one of the things that we know from other people is that they want a little bit of serendipity. And in other words they will be more engaged if every now and then they hear something that they haven't heard before doesn't agree with. So it may be that in the long term for long term engagement feeding in every now and then something that's outside of you may actually be better for engagement over the long term. And you know Facebook is a business that wants to keep going. The challenge that Facebook is not the external pressures of the government and antitrust. The pressures of Facebook has is that there is another, there'll be another platform arising within five years that everybody is going to flee to. And the problem for them is long term engagement. Sure, they can make through short term engagement but they see as well as anybody else that the long term prospects are very very challenging. People could leave as fast as they’ve come and so they have to think about long term engagement. How do we keep people happy over the long term? If they're going to get bored and or frustrated with us just telling them stuff that they agree with, if that doesn't give them long term satisfaction, then we're going to be toast. And so we have to change it. We need to do something differently.

**Burke** [00:44:52] Something that struck me about accounts of the WELL or even - I went on the website, the contemporary website - is a sense of positivity. A lot of positive reactions to their experience on the WELL and yet current research on Facebook, a lot of research says the more time people spend on Facebook the more depressed they are. The more kind of down feelings that they have. Why do you think that -

**Kelly** [00:45:19] Is that really true?
Burke [00:45:21] I'm fairly certain there's a lot of research currently the more time someone spends on Facebook kind of more depressed they end up becoming.

Kelly [00:45:30] I haven't seen that. Actually I would be very surprised if was true on average. I think there might have been a couple of studies of looking at kids? Under certain circumstances? But I don't think - I would be very surprised if that was true for the general population.

Burke [00:45:57] So you think that most people have similar kind of positive feelings about Facebook in the same way that they might have had about the WELL too. That sense of community.

Kelly [00:46:09] No I don't say that. I just said that I would say that in general people have a positive - they don't have a negative feeling about Facebook. It's like you know if you look at the number of hours that people watch TV - which is just by the way far greater than the number of hours people spend on Facebook - what's the relationship that people have with TV? Does it make them depressed? I mean they you know you can say well they're addicted to it. But what's the relationship of addiction? I mean it's like they're going back because in some ways makes them feel good. They aren't going because each time they watch TV turn on TV they feel depressed. Imagine you feel depressed and turn on TV and feel better. So what is the you know - here's something bigger than Facebook is television. And so to me always the question is, 'Here's Facebook, compared to what?' Well its compared to TV where there's more time spent. So what is the relationship that people have with TV. Is it a positive? Is it a negative? Is it neutral? What would you say?

Burke [00:47:34] I'm going to say positive.

Kelly [00:47:39] It's a positive right. Yet, people say that there is kind of an addiction with TV. That people kind of turn it on mindlessly. That they just watch channels that they that they agree with. So why is that not a problem?

Burke [00:48:05] I don't know. It's a good question.

Kelly [00:48:41] I mean it's very influential. Fox News is hugely influential. Most people are watching Fox News. And we know, we have lots of studies of the influence, of the power of commercials and stuff. Why aren't people upset about that? Where there is more time being spent?
Burke [00:48:41] Well something I think about with the TV and social media comparison, and specifically Facebook, is the idea choice, where you are able to choose which channel you opt in to and that’s kind of like a one to one interaction, whereas with Facebook you’re served content that has been chosen for you and then you find that information.

Kelly [00:49:13] Really? So you don’t choose which people to be friends with? And again I don’t know about how the algorithm works about how you - I mean because I don’t really use Facebook. I just post on it but I don’t read it. So like you choose to see the news channel or news channels are sent to you automatically. Or how does that work?

Burke [00:49:39] Well I think there’s a couple of up you a couple different algorithms that are used a combination of one another but one of the big ones is that there’s a Like base model where you Like x,y,z and therefore you will be served different permutations of content that are similar to those systems and then in the likelihood that you Like those different pieces of content and you’ll get a bunch of different things similar those initial two. And the same with your friends where if your friends have Liked certain things you’re going to be serving those pieces of content even if you’ve never engaged with it before. The more you operate in it - the more it feeds you information that it believes that’ll make you interested.

Kelly [00:50:26] So the results, do you like what you get from Facebook or do you not like it?

Burke [00:50:34] Well I feel like I’m not the average user.

Kelly [00:50:42] No not yourself. Do you personally like what you’re getting from Facebook and do you not like it?

Burke [00:50:47] I am usually kind of skeptical. So a mix, because sometimes I get something that I know is meant to kind of make me do something and I don’t engage with that because I know that I don’t want to go down there. And then sometimes I feel labeled. Like for example because of my age group I’m served an ad of maybe like a wedding ring and I feel like I’m categorized as female 18 to 34. It’s like a marketing segment. But I know what the functions are behind those things so I kind of see them and I choose to disregard them more as I feel maybe empathetic towards someone who’s
not aware and who’s just simply being served with information and isn’t aware of why
they are and therefore they’re kind of just engaging with it naively.

**Kelly [00:51:41]** And as you said you liked TV, so do you prefer the advertising on TV
where there just nothing to do with you at all? It’s just random? Do you prefer that kind
of advertising?

**Burke [00:51:55]** I kind of do actually because it feels very - I don’t know - the sound of
commercials in the background - it’s kind of calming to me. I think maybe it is because
they just - and of course there are segments that are bought - commercial segments -
knowing that you know women 18 to 34 probably watch the show. But there’s
something about it that I guess is not as - it doesn’t feel as immersive and it’s much more
kind of calming to me. I don’t know if you feel that way though.

**Kelly [00:52:35]** The thing is if for a lot of people like you who are finding the feed of
Facebook to be not to their liking. Facebook will change that. They have nothing to gain
by people saying, ‘Well, I don’t really like it I prefer TV.’ That’s death to them. So they
are very very focused on whether you are happy with your feed. Why should they
continue to feed if most of the users are unhappy with it? They’re not going to do that.

**Burke [00:53:19]** So you think they’ll kind of come up workarounds?

**Kelly [00:53:23]** Of course! They can’t survive if most of the users are unhappy with
what they’re getting from the feed. So far, my guess is that their evidence show that
most people prefer what they’re getting right now than what they got before. I mean
they spend - they have a lot of employees who are very very smart trying to answer this
question. Which is a game to piss off two billion customers?

**Burke [00:54:00]** Right. Do you think it’s possible today in 2019 to design a democratic
online community? At scale? Is it something that can be achieved or not?

**Kelly [00:54:19]** Yes it can but it’s a very small scale. You know you could do that. There
are some of 4chan - some of these underground dark web and archaic places - they may
be closer to the ideal. You know it’s kind a like - one the most democratic institutions in
the eighteen hundreds and seventy years were pirate ships. Pirate ships were very very
egalitarian. They elected their captains and most ships -

**Burke [00:54:58]** Really?
Kelly [00:55:00] Yeah. So it's the outlaws [Laughing] who are often - so some of these you know kind of pretty dark places may actually be more democratic. But I think they're small. You know they're smaller scale. I haven't seen any - I mean again I don't know how to construct a truly democratic place at a large scale. I don't think it's impossible. But I don't know how to do it. I haven't seen any anybody do it.

Burke [00:55:44] So like maybe something more like the WELL in a sense, like a village kind of system -

Kelly [00:55:56] Yeah. And I'm sure there are some places like that, that exist. And you know here and there where they have some models and you know the thing about it is they have value you know you don't have to have a huge planetary scale system. But you know these systems do benefit from the increasing returns which is generally they become better the more people join. But you could know you could have - yhere are probably still small communities here. Again, maybe there are some other countries where there's language specific platforms. They may work there but it's, you know if you look around, 'Well what kind of private companies are completely democratic?' Well there's like zero, probably. There are some that are maybe flatter than others. Some that have you know much more flat organization less harking bosses. But there's none that are like absolutely flat. It's hard you know there are co-ops here and there. Usually small scale. So I should say we shouldn't be surprised we don't find it in online because we're not finding it offline either.

Burke [00:57:35] What is your opinion of potentially a social network built on the blockchain?

Kelly [00:57:43] Yeah. There's a bunch of guys working on that and we'll see guys unfortunately. But. It's possible. It's very unlikely that there would be just kind of a straight out social media of any type there's blockchain or even some new magical fairy dust technology that would displace the current systems. Just if they're replicating what we would think of as a mobile phone, social network. However, in creating the next platform after the smartphone on social media, there using blockchain I think would have a very high level of possibility where in that that I think is the mirror world, what I call the mirror world, the augmented reality the smart glasses. We have smart glasses. And there I think basically you know the the giants are gonna be none of the current giants. They will be startups and disruptors and whole 'nother set. Not that Facebook or Google go away but just that they aren't going to become the dominant of that platform.
And so when making a brand new platform, I think blockchain could very well play a part. I don't think it's necessarily going to revolutionize - I mean I think it will be another set of tools like touchscreens were part of the technology needed to do this smartphone, mobile social media. And I think blockchain would you potentially be part of that. I don't think it's going to bring democracy or necessarily bring you know other things because the truth about blockchain is that it can be used - I think China very well may mandate a blockchain currency to monitor everybody. So you know Facebook block chain currency we'll see - Libera - we'll see what happens with it. But it's not even clear how much block chain really plays a part in this.?It may actually not be blockchain? But in any case blockchain can be used in many different ways including for control.

**Burke** [01:00:57] Do you think that there is - the specifics of control is another topic I am interested in this sense because in my view there is something about a social system that has at least some kind of sense of equality between all the users but it feels in the sense of Facebook the control is flipped towards the company. Whereas I feel like on the WELL [the control] was more edging towards the users. Do you think that that's accurate assessment?

**Kelly** [01:01:40] Well yeah. We had none of the sophisticated technology to filter things or to make a feed or two in some ways steer conversation. We had we had a couple of things - we could ban someone temporarily. We had very crude tools that were almost binary - you're either on the WELL or you're off. Here here on the well off. So our our tools of control were very very minimal. And yes, they operated much more on society kind of conventions. The usual things of trying to put peer pressure and back channels and stuff like that. And so we would you know we got to the point where we had to ban people for being disruptive. And you know, you might want to talk to the people who were banned ask them whether there was control [Laughing] They would probably say there was too much control in the hands of a few people. So yeah - And you know there was one there was one issue which Katie in her book dwelled on which was something I objected to, which was there was something called 'massY.' The user had the power to remove everything they wrote on the well to that date. One of the most prolific writers on the well Tom Mando who is a futurist. He was a little problematic. He was almost a troll at times. He was a troll. At one point he decided to take all his marbles and go home. He left and he eliminated. He wiped out. He erased all the he written on the WELL over years and years and years.

**Kelly** [01:04:11] I objected to that power I did not want the users to have that power because my argument was very simple is that when, I had many conversations with
Tom online. And that when he removed his side of it he'd diminished and devalued my side. In conversations there are two parts and if you remove your part of that he was basically ruining or destroying my side at the same time. So it wasn't as if this libertarian thing where he - you know - we had you 'Own your own words.' He says 'Well I own my own words I'm going to take my words.' And I'm saying, 'Well yeah but you don't own the conversation.' And so that was one power that I thought the user should not have. I think they could certainly maybe have some power to remove a particular something they said and even that I think it was. I think we should have different things or maybe have something in it you know saying that - there may be ways to deal with even that because I think again in conversation, you just don't own your own words in a vacuum. Your words affect other people's. The value of the people's words.

Kelly [01:05:45] It is very hard to change those kinds of things once you start. So Stewart famously wrote you 'Own your own words.' And what we should have written was 'You're responsible for your own words.' Which is really what we were trying to say. That was one design thing that I would have changed is that - that was the only legal thing we had was that - it was a term you own your own words I would say no you don't actually own. You're responsible for your own words. You don't actually don't own your words.

Burke [01:06:27] I was there I think in that sense. It sounds almost like the ownership or the ability to erase your word means the power in the direction of users but that rule I got right.

Kelly [01:06:42] Exactly. And I think if I change a thing I would change that. I would reduce that power. Because I think was detrimental to the community. That's why those pieces were yeah, the individual has but it's harmful to the community and the community is made up of conversations and it's not just you or such a bunch of individuals there's a synergy. In these conversations and your actions affect not just yourself but your actions affect other people. You want to account for that. That's what a community is.

Burke [01:07:22] Do you think that is generally it [the control] was in the direction of the users? Would you agree that Facebook is in the direction of the company?

Kelly [01:07:39] I don't know for sure but I suspect that a person with Facebook would have more freedoms and on the WELL.
Burke [01:08:01] Why do you think so?

Kelly [01:08:09] The WELL is a small village and this far more controlling in a certain sense. Facebook is the big city where you’re much more anonymous. And people don’t care unless you really get out of line. We had a private conferences where we were we saw for the very first time what happens. We had these anonymous conferences and that’s why I’m really very very negative on anonymity because it was like we saw the very beginnings of what happens. We have anonymous conferences and people are just outrageously bad behavior. And this was kind of the whole thing of what went onto for 4Chan and anonymous and stuff where are these vigilante groups and they just because they’re anonymous because they have no responsibility whatsoever. And we saw the first glimmer of that in the anonymous conferences on the WELL where ordinary people who behave very well when they have to when they have the real name, when they’re anonymous it just unleashes the worst of them. There was a certain value in venting at some of the pressures in the public conferences where people say wanted to say something they knew as politically incorrect they could say it in the anonymous conference. So I think that’s one thing that I think you don’t want in a system. You don’t want anonymity. You want have to true name, real names because people behave better. Because there is a self-censoring that goes on which is good. You want people to behave better. You want people to behave civically you want people to be thinking not just to themselves but other people. And they don’t do that when they’re anonymous or they’re less likely to do it if they’re anonymous. And we see that again and again the battle about the difference I mentioned earlier that people behave differently online and when they’re hiding behind a mask, yes that can be more truthful but they can also be far more hateful. They can be untruthful as well. And the problem is that when they’re behind a mess you can’t even tell what’s what. So all the issues that you’re dealing with like fake news, my gosh! You can’t even begin to appreciate what it is unless you go in these places like a 4Chan or 8Chain where there’s going to be people completely anonymous and that stuff people say or believe. It’s just mind boggling. And so if I was designing a system I would definitely would outlaw the anonymity. I would I would require true names. And Facebook started off that way. And that was I think a big mistake. You know it’s like what I would like. And this goes for Twitter as well, I would like to only see things that were posted by people who have verified true names and retweeted. So I don’t see anything that does not come from a source that is willing to stand up and take responsibility for what they say. That would change a lot for me if you had only verifiable, authenticated sources that are willing to stand up because the only way you can tell truth from not from fiction today is you can’t tell from looking at the words you can’t tell from looking at a photograph, you can’t have him looking at the video. The
only way you can tell is what’s the source. Do I trust the source? That’s really the only way to ascertain truth. You can’t tell from looking at the material and looking at the thing. It can all be altered. Blockchain might be a part of that solution.

**Burke** [01:12:23] So it almost sounds as if because of the anonymity that Facebook permits it to users, you feel as if Facebook actually gives users potentially more control.

**Kelly** [01:12:40] Right.

**Burke** [01:12:43] Do you think that there was something specific about bulletin board systems and the architecture of a bulletin board system that was helpful in facilitating that kind of village-like feeling? The community feeling?

**Kelly** [01:13:03] Well, I guess so. Very early days of bulletin boards imports you have to realize what they were they were really really strange when we think of them now [Laughing]. They were computer in someone’s bedroom. People can call in. I mean they had to call literally calling on your phone line. Your phone line was occupied during the time someone was - one person at a time - was inside your computer. So you open up your computer to anybody who had your phone number. And they would come into your computer. Today we would just find that insane. And of course there’s one at a time so you call up and it’s busy and you have to call back until nobody else is calling in. So then when you you know later on the other versions of them they would have multiple lines coming in. Originally it was asynchronous where you come in you can make a post and read whatever everyone else has posted and then you leave and then next would come in and that’s how the thread was made. So there was a sense of community. So yeah. Because you had to know the phone number as it was. It was all very word of mouth and. It was thrilling. In many ways I think you know if you made bulletin boards today even some equivalent of us this wouldn’t be as exciting.

**Burke** [01:14:44] I imagine Craigslist is a kind of contemporary Bulletin Board System.

**Kelly** [01:14:50] Yeah you could.

**Burke** [01:14:52] And there’s something about, I guess in it kind of goes back to your point about the erasure of information, where that ability to erase what’s been there does kind of take away from the experience of something and I wonder if the fact that there was this chain almost, in a way somewhat like a blockchain where there is one comment
and then it added to another comment, that might have helped create a sense of trust in the system. Do you think that that’s true?

Kelly [01:15:26] Just repeat repeated last thing - what’s the assertion?

Burke [01:15:29] The assertion that in the Bulletin Board System the chain of comments or string of comments, one would build on another so you could only have really - all of the historical comments would typically remain in that system. But essentially I think having the historical comment when you logged in to look at posts for example might have added to the sense of trust in a system itself and in the community? I guess because you can erase essentially - you can’t erase everything - but you can erase a lot of what you post. You can erase your Facebook account for example - whereas this kind of linear posting it, it gives it a time stamp that could not really be erased in a way. I kind of imagine it a little bit like blockchain. It was like adding to the chain. There’s always this addition.

Kelly [01:16:58] I mean I think in general we we have smaller scale things, you know word of mouth, I think trust is this little easier to generate and sustain when you have a small scale. That’s why you know small businesses and small stores are always going to have an advantage over someone Amazon because it is easier to trust at a small scale. And so for you know for certain kinds of trust. There is a there is an advantage. It’s kind of like - there is just trust that big institutions have - like I far more trust Amazon getting me a package in a day than I would some little local place. I trust Amazon with certain things and then you know in terms of like if I give my credit card information to a local restaurant versus to Amazon who do I trust more to keep it safe? Actually Amazon. Then again it’s like those little Bulletin Boards we were in someone’s bedroom and we trusted them to a certain extent but then like there was a lot of hacking. Would have given them my credit card? I don’t know if I would have trusted them with a credit card at that time. Though I did trust Amazon with it. So I think trust is probably a big umbrella and it encompasses many different things you might need to disambiguated. You might need more nuances in that? I think there’s probably different kinds of trust and different things that we trust and don’t trust. So I’m just trying to recreate my state of mind when I went into those Bulletin Boards in the early days. And so like, it was exploring. It was an unknown. You didn’t know what’s going to be there or who was gonna be there, what they were saying. There was a huge uncertainty. There were some hacker boards and trying to get into there was always difficult because they didn’t trust you!
Kelly [01:19:53] You know there were the early versions of AOL and CompuServe which were trying to be what Facebook became. They wanted to be the big - and by the way so did the WELL. The WELL - Steve Case was on the WELL - he was looking at the WELL trying to learn from the well when he was making AOL. The WELL was headed towards becoming AOL itself. But I think the thing that stopped us from expanding in that direction was the fact that we were a non-profit. So getting investment, it's like why should anybody invest into us when it's a non-profit? That was the that ws what limited our growth. We were poised actually to grow very big and could have been bigger than AOL and you know we wanted to in a certain sense. We wanted to get bigger and have more people. But I couldn't convince anybody to invest into a non-profit. There is no return. And the idea of this as a social good was this little - well, the thing about it was that nobody believed that it was ever going to be mainstream. I mean it's really weird now but at the time it was seen as a kind of CB radio. It was not going to be a fad for teenage kids and pimply kids in the basement. That's what it was about people who could hide behind a keyboard because you needed to know programming to log in. You had to actually know C prompts and stuff. And so it was it was viewed as a marginal teenage kid like CB radio for a very nerdy thing and no one really could be convinced that this was going to be the future that everybody would be on. They just didn't they didn't believe that. So getting them to kind of like invest into this as a social movement was just like there are too many steps to. But the ambition of the WELL was to be AOL.

Kelly [01:22:13] But there were other there are other ones like AOL and CompuServe that were out there. I'm trying to think of the trust. Did I trust them? I'm not sure that that was ever in the conversation. It was sort of neutral in my recollection. I'm not sure that - I don't think that those words ever came around at that time. If you go back and read the early things I don't think that was just a word that people were using to describe any anybody's concerns. That was not the concern.

Burke [01:23:12] I find it so interesting because in that community feeling I associate trust with peers in the community there's like a sense of working together. So it is interesting about that you don't remember that feeling.

Kelly [01:23:36] No I don't. You can go maybe do a search on Howard's book for the word trust. How often that came up, I'm not sure. Whether he was using it as virtual communities or not. But this is a much more recent concern. Very very recent.
**Burke** [01:24:01] So you don’t think there was anything really specific about the bulletin board - I don’t even know if you could describe as UI - but that simple architecting of kind of topic posting that maybe either added to the community feeling or the village feeling or I guess we wouldn’t describe it as trust anymore but the kind of sense of community in that space? I guess really is the architecting of that system and how it was designed.

**Kelly** [01:24:35] Well a lot of what community to me is about was the sense of belonging rather than trust. It’s like I belong here. These are my people they understand me. I don’t have to prove who I am. Acceptance. Belonging, Collaboration. They may entail trust but that again trust is sort of a very crude - it really wasn’t how people were talking. So that sense of belonging, of finding like minded people. You know my whole thousand true fan idea of being able to connect, the term be connecting with people who think like you, are interested in what you’re interested in. That’s the kind of direction that pocket community in these places where you’re taking. It was that joy of finding others who shared values, who shared things with you. Maybe that entails trust. But again that particular thing wasn’t what people were talking about or dislike. There was this sense of discovery of, if you were interested in the chronology of Star Trek, the minutia of you know the continuity in Star Trek, whatever it was some weird thing that you didn’t think anybody else was interested in and then you’re finding, ‘Oh here are my people they’re very interested in this too. And they also like Grateful Dead music.’ Whatever it was. That was the community I think. We can do stuff together or we’re we’re concerned about the homeless in San Francisco and we are outraged by it and we’re going to get together with this group and we’re going to do something so. That’s the community I think that this is discovery, connection, belonging?

**Burke** [01:27:05] I didn’t even think about the word belonging but I think belonging is a much of a better word to describe. It’s starting to make a lot more sense to me because I can imagine how - there’s something about I think the prioritization of topics by kind of where people might feel that they belong versus maybe my own personal status updates on Facebook, the reversal of that hierarchy in this system and in that architecture that I wonder if that leads to a better sense of belonging. More of a sense of community. Because you automatically are siphoned off into a group that you feel connections with.

**Kelly** [01:27:51] Yeah, we see this as Facebook private groups right now where people find a sense of belonging. And I think that’s hard to do out in the open. Because we want to be able to say things only our tribe would understand. Or that’s considered okay in our tribe. Seth Godin’s written a lot about tribes and stuff and I think he’s really right on.
You know we have an inherent fundamental biological tribal sense. And yet, the planet and civilization only works if we can leave that or if we can domesticate that tribalness. I think a lot of sports is tribal and that’s a legitimate outlet for that tribalism. So we’re trying to channel that inherent tribalism into productive ways and kind of channel away from areas that is not productive, like war. And so these communities, these online tools can help us with that. You can have multiple tribes. They can help us find them, can help us collaborate. It can help us overcome these tribes when we need to. So yeah I think that’s a very fruitful way or framing to try and understand what we’re doing and where social media may go next.

Kelly [01:29:36] So I have about 10 more minutes so you may want to think about some of the other questions you may want to get to.

Burke [01:29:51] So first of all thank you so much for giving me so much of your time already. I really appreciate it. I wish I could talk to you all day, quite frankly, it’s been so fascinating. I think the last thing I really was thinking about was.

Burke [01:30:34] This is one of the questions I had and I’m not sure if this is kind of a little bit of a tangent but how do you define the connection between digital space and physical space? If there is a connection at all? How do you look either mimetic connection or - I don't know if it's a mimicry - but in some ways even in the design of information and spatial information versus in the physical world. How do you see those two things to come together?

Kelly [01:31:20] Well, I think we’re going to find out very soon. I wrote this cover story for Wired early this year called mirror world which is about augmented reality and smart glasses and the kind of the next platform after Facebook and WeChat and that that takes place in the real world. It’s the merging and the melding of the digital virtual online world and the physical world together. So it’s this one to one virtual map of everything in the real world. We digitized the entire world. We digitize everything. We digitize ourselves and it operates in this convergence of those two worlds. And so I think we’re going to find out some of these questions about how we connect the virtual to the physical in the next couple decades. And I think the answer is we don’t know we don’t have very good - we have some tries - I think stuff like Amazon’s trying with grocery stores and things where you have hysical stores are the kind of like virtual sense that you know you’re walking you take stuff you walk out, there’s not cashier. It just knows that you’ve removed an item from the store. That those are kind of early experiments in this convergence. And so we would certainly you know try to make
communities and tribes and places that are public and some that are private and others that have something in between. And so I think we’re gonna see lots of experiments on this and how to do this. But I think that right now we don’t we don’t have very many answers about that. The downside, the cost of this is that this is going to be tracking on a massive scale. This is basically total surveillance. So the issues that we’re talking about right now about big data and having your data mingled with other people's data and who owns the data are just gonna be amplified a thousand times and they’ll be even more questions about what’s public and what’s not. Is your face public? Most public thing about you is actually your face. It’s probably the most public thing about you, it’s the most personal thing about you. These disease dilemmas about this are going to be - you know there’s so many new questions that will have to be worked out.

Kelly [01:34:26] So I think the kinds of issues that you’re dealing with of you know community spaces, public spaces, public spheres, third places, they’re all gonna have a whole nother round of experimentation, new questions of how do we do this? What works? It is good that we try to think about them beforehand but the one thing that I’ve learned is in these complicated new technologies that we have from A.I. to robotics to data surveillance to genetics is that. We can only figure these things out by using them. We can’t figure this out by thinking about them only. We kind of rate the value of intelligence. We think, well we’ll think about these we can imagine all the ways that go wrong. We’ll figure this out. And we’ll solve the problem of these technologies have, maybe even before we have the technology, and I think that’s completely incorrect. I think the only way we can solve these is through actual living them. Actually using them for years. And measuring the results truly with data and then going back and making corrections. So there is a common trope now that, ‘Oh the people on Facebook should have known what was going to happen. They should have realized and prevented this from happening.’ No. It was impossible to forecast it was impossible to prevent. All we can do is do it. Try it out and then correct, and then do it again and make a new experiment which will maybe fail. So this coming platform with the smart glasses and this convergence of the virtual and the real we can imagine all kinds of horrible things which probably none of them will happen. And all the horrible things that will happen we can’t imagine. And so we’re going to have to actually run the experiments. We actually have to do it. We have to engage with it. We have to embrace the new things and use them. And through use it, steer it.

Burke [01:37:06] The very last thing is do you think the Internet is destined to become a public space or a private space?
Kelly [01:37:19] Both. Is the real world a public space or a private space.

Burke [01:37:29] Both.

Kelly [01:37:29] We need both. We want both. The augmented mirror world is going to mirror in many ways the real world. And, it’d be horrible if there weren’t private spaces, it would be horrible if there weren’t public spaces. I think the thing though that I would suggest is that there are third spaces. Maybe in even fourth spaces. There are things that are kind of like semi public. Semi private. I think that’s what we’ll see is is this is what technology generally gives us is increasing options. So we will have public spaces we will have private spaces and we’ll have third spaces and maybe we’ll have four spaces that are - you know - I don’t know. We’ll have some words where it’s sort of like privat-public. We don’t have a very good vocabulary but we should have better words. You know the researcher who devised the idea of the third space which Starbucks took took over. They took their research and they turned it into Starbucks but it doesn’t have to be Starbucks. The idea that you can have other kinds of spaces. You don’t have to just polarize everything public or private. There can be species of things in between. And you know they’re like lobbys in private buildings. Is that a that a private space or a public space?

Kelly [01:39:23] I’m a firm believer that that’s what technology is doing - is expanding possibilities of things that -very rarely does it eliminate an old possibility. Usually it just adds another one and we can have more new institutions. You know we tend to think well there’s private companies commercial companies and then there’s government. Well then we invented another thing called a non-profit which is like a company that doesn’t make a profit. We can also invite other institutions that are in between the government and companies. Some of these new platforms are exactly what that is. Facebook has many of the attributes of a government and it’s sort of like you so big that it performs some of the functions of government performs, and yet we don’t even have a handle on how we wanted to behave or regulate. Should should act like a government? Sometimes it does. Other times it’s acting like a company. And so there is something in between. There’s a third thing happening, there’s a fourth thing because I guess there’s non-profits. So there’s whole new institutions coming up and we need to have a kind of a framework legal framework or social framework for understanding them, for regulating them, for exploiting them. And so I think that’s what technology is doing and I don’t want to get stuck well it’s gonna be either a government or it’s gonna be either commercial.
Kelly [01:40:46] Well it doesn't. It can be something else. It's a commercial government. That's the whole thing is that we need to have the language to discover to discuss this. We want apply old things, 'Oh it's a monopoly.' Well that's like that's like a 200 year old idea that doesn't really even apply to what this is. It's not a good model for trying to understand it or to make it better.

Burke [01:41:15] Do you think Facebook should be government regulated? And then I'll let you go. My very last resort.

Kelly [01:41:20] Of course it should be. But here's the thing that people don't realize is that regulations always to the benefit of the incumbent, it makes the incumbent stronger. All right. I mean it's a lot of people want to kind of regularlate Facebook to make it weaker. Well that's not the way it works. It makes us stronger. Because the incumbents have a greater cost then more to adhere to the regulation than the big ones and the big ones usually generate regulation that benefits them. So Facebook wants to be regulated too. Of course it has to be regulated but the question is how? Or regulated to what? That's that's the crucial question it's not whether it should be regulated, it's how is it going to be regulated? What do you want to regulate? And that's much more difficult question to answer. I think the fantasy the romantic fantasy of breaking up is a complete fantasy. It doesn't accomplish anything that people wanted to accomplish. It's historically not even a sound idea. But yes of course it has to be regulated. And it will be regulated. But the thing is regulation is unlikely to produce the the the consequences people want. They have to be a little bit more creative in what they're going to regulate.

Kelly [01:43:00] So I have to run. I'm sorry I couldn't speak more but I appreciate your great questions.

Burke [01:43:05] Thank you. I can't express enough how thankful I am and I know it's just so nice to speak with someone who is so educated and successful especially from my hometown. It's so nice to see someone from Westfield who is such a successful person so I really appreciate it and I can't thank you enough thank you again.

Kelly [01:43:24] Yeah well I appreciate your kind words and check out Katie Hefner's well book. I think you'll find some useful information there.

Burke [01:43:36] I will thank you so much. Bye, thank you.
Appendix B

Ad Impressions by Targeted Group by Quarter, NewView

<table>
<thead>
<tr>
<th>Combined List (group)</th>
<th>F</th>
<th>Null</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American Culture and Politics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Police Brutality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Null</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pro-Border Control, Anti-Illegal Imm.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American Culture and Politics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet Humor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muslim Culture and Politics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American Culture and Politics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American Culture and Politics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patriotism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Republican</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Justice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pro-Law Enforcement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic Culture and Politics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pro-Confederate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American Culture and Politics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American Culture and Politics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LGBT Community</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tea Party</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Libertarian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pro-2nd Amendment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liberalism or Libertarianism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American Culture and Politics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American Culture and Politics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Veterans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bernie Sanders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anti-Muslim, Islamophobia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christianity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prison Reform</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democrat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sheet 12

<table>
<thead>
<tr>
<th>Combined List (group)</th>
<th>Delaware</th>
<th>Arizona</th>
<th>Arkansas</th>
<th>California</th>
<th>Connecticut</th>
<th>Delaware</th>
<th>Florida</th>
<th>Georgia</th>
<th>Hawaii</th>
<th>Illinois</th>
<th>Indiana</th>
<th>Iowa</th>
<th>Kansas</th>
<th>Kentucky</th>
<th>Louisiana</th>
<th>Maine</th>
<th>Maryland</th>
<th>Massachusetts</th>
<th>Michigan</th>
<th>Minnesota</th>
<th>Missouri</th>
<th>Montana</th>
</tr>
</thead>
</table>

Note: The table continues with similar data for other categories.
References


110


