Semiotic Bridges: Branding a Hyperobject

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Compiling the Botnet

The botnet can't be seen. Its success depends upon invisibility: this illusion of autonomy is necessary for achieving supremacy within a network. The botnet constructs influence through fractional means, embedding ideological consensus (or at least its appearance) among apparently disparate users. Each action of the botnet is falsely sovereign, mimicking the individual actions of unique users a thousand times over.

Inherently political, the botnet with greatest server power—and by proxy with the most resources—will have the greatest amplitude. At stake is more than supremacy within a server. Successful botnets can manifest their influence, building consensus, narratives and even hegemonic thought patterns. As such their echoes can be felt far beyond the network from which they originate.

Without algorithmic tools, it can be nearly impossible to detect the botnet's presence. Some botnets recycle content from unique users, blurring the distinctions further, disguising their presence nearly completely. One can approach the idea of the botnet, discusses it, even see aspects of it, yet it cannot be conceived of in totality. Though we can produce network models and diagrams, these remain incomplete. As an embed object the botnet is both reflective and refractive; its internalities and externalities are not static but recursive. For these reasons, the complexity of the botnet approaches that of a hyperobject[1].The usual semiotic models fail.

Given these qualities is it possible to develop an identity for the botnet? Can the semiotic gap be bridged? Can a logo be produced that accurately represents this object? Perhaps foolishly, this is what I have attempted to do over the past semester. Through iterative efforts, trying, failing and trying again, I have sought to develop branding for the botnet.

Agora of Brand

The development of the botnet brand has been a process of editing and elimination. This has meant discarding filigree, decoration, certain strategies, and ultimately, many traditional facets of branding. Gone is most collateral and a definite logo. In the resulting liminal space, is the brand agora. It is characterized by three brand pillars:

- Use of default typeface
- Dimensional Grid
- Attention to underlying data structures

Though it is easy to state these pillars, the application is more challenging. I have made numerous attempts to put these principles into practice. Only in my final iteration have I managed to successfully use the botnet brand.

The first brand principal is easily put into practice. All that's needed is to type the word botnet ina default monospace. One can open a text editor and write the word, one can simply eliminate formatting from plain text, or one can use css to declare the font family monospace. Using this strategy, the logo is realized both by the designer and by the computer: a collaboration between network and user. For some botnet will appear in Menlo. For others it will be Letter Gothic. Still for other it may be Open Mono. It depends on the application and the computer.

1 Morton, Timothy. Hyperobjects: Philosophy and Ecology after the End of the World. Minneapolis: University of Minnesota Press, 2014.

The purpose of this strategy is develop an ambient logo. Timothy Morton describe the ambient object as “without center or edge.” It is refractive and reflective, breaking down the distinction between subject and object[2]. This is critical to the brand strategy as the default typefaces eliminates design sovereignty, aquessing authority to the app in use. It is an homage to the network as well as an invitation into the botnet, allowing the user to enter the visual vernacular of the network.

Next is the grid. The grid is applied dimensionally, determined by the window width, or size of printed collateral. The grid is a reference ot pixels, the building blocks of the digital. In this way the grid establishes material, reinforcing the notion that user has entered into the network space. More importantly the grid is a tool of control. It is a method for developing structures that sort and organize elements. The grid serves as the basic interfaces of the identity, itemizing the user’s attention, and depending upon the application, potentially sorting the user. According to Benjamin Bratton, the grid is instrumental in developing fields of control[3]. Particularly within the network, the botnet takes advantage of the grid, using it obscure its identity. In this way the grid is a tool that politicizes the brand agora. This striating is necessary in order to realizes the transgressional aspect of the botnet.

Naturally the grid leads into the data structure. The third and most obscure brand pillar. Like the botnet itself, this brand pillar cannot be seen directly, but it is felt within the brand. The data structure is a governing body that is manifest by the presence of the brand. It recalls the organization behind the botnet becoming the implied fingerprint: the functional core element of the identity. The data structure is manifest at every level of the identity, from the information pulled from the cloud that makes up the tweets in the final sculpture, to the way in which the text is laid out. In this way, the data structures articulate the recursive nature of the botnet. “Viable systems contain viable systems,” writes Stafford Beer[4]. Indeed the structure is recursive. In order to achieve text within a grid, pulled from tweets, it was necessary to write the tweets into a JSON file with a series of arrays nested within objects nested within arrays. Understanding the data structure as a pillar of the identity was crucial step in understanding this identity. It was one of the way in which to bridge the semiotic gap. Stafford Beer writes, numerical data “is a product of gestalt psychology, in which pattern is relied upon to convey information.” The data structure is the identity.

Semiotic Strategies

I began developing ways to implement my guidelines. Almost immediately I started coding, developing a script to pull tweets from the twitter api. Using a library called twit[5], I used javascript to search for tweets containing the word botnet. From here the pulled tweets are written into a JSON file. Though these tweets are not all written by bots, many are. This literal strategy has its limitations, however since each contains the word botnet, it is easy to establish a brand connection this way, describing the botnet which is otherwise obscured.

2 “Why Ambient Poetics?” Academia.edu, December 2002. Accessed May 2, 2018. http://www.academia.edu/1080178/Why_Ambient_Poetics.

3 Bratton, Benjamin H. The Stack - On Software and Sovereignty. Massachusetts: MIT Press, 2016.

4 Beer, Stafford. “Fanfare for Effective Freedom: Cybernetic Praxis in Government.” First Memorial Lecture, England, Brighton, 1973.

5 Ttezel. “Ttezel/twit.” GitHub. June 15, 2017. Accessed May 02, 2018. https://github.com/ttezel/twit.

My first impulse was to develop a website that could visuals the botnet tweets. However, I quickly realized the limitations of my skills. I would have to learn d3. I would have to load data asynchronously and I would have to compile a server to host my site. Not only that, I saw many site were already doing what I wanted to do, only better. For example, the botometer project[6] will provide metrics on any user displaying the probability that the account is a bot. Though informative, these projects still only articulated one aspect of the botnet, failing to create a semiotic representation of the whole.

Next I moved on to P5.js sketches that tried to articulate nuances of the botnet, exploring size as a means of measuring retweets. This strategy was useful and helped me to identify which tweets were likely part of a botnet. Seeing repetition of content and the number of retweets put this in perspective. Again, this strategy was limited. It was abstract and didn't seem to bridge any semiotic gaps. Furthermore, it was only able to examine the data structures in a shallow manner.

Next I began exploring audio triggered by tweets. This aspect I never completed due to time constraints. However, of all the digital application, this one had the potential to be the most successful.

At this point I realized that I was trying to use digital methods to make the botnet tangible. This seemed counterproductive and severely limited the recursive potential of the project. I began to experiment with ways to introduce the botnet into space. To this end I began with projections, streaming lines of tweets onto various surfaces. From cement to the walls of a server room, the projections sparked interesting questions of materiality and recursivity. The server room projection was of particular interest as it addressed the feedback loop of internality into externality that characterizes the brand. Yet something was still lacking. The complexity of data structures wasn't tangible

Next I tried making a poster, hoping that the materiality and presence would solve some of my problems. Again, this iteration suffered from many of the same flaws as projection. It was too static. It lacked depth. The complexity was missing.

The Archive

Then I began developing the archive, a collection of botnet tweets that could be compiled within a physical space. This project would serve both as a brand and as a museum, archiving the contents of the tweets.

This strategy served to uphold all of the brand pillars, easily allowing for the application of default typeface and dimensional grid structure. Furthermore, it was able to express what I had previously been unable to express: the scale of the botnet, the structural complexity and the incomprehensibility. Here is where success lies. The archive articulates the data structure through absence: a mass of tweets incomprehensible in both volume and order. There is no visible organization (though there is a robust data structure that enabled the pulling and printing of the tweets), yet a presence is felt. This pile is a hyperobject embodied.

In conclusion, this sculpture is the most successful manifestation of this identity. It's claim to identity may be slim. Yet It holds the same ghostly presence that the metahaven sealand identity does. It is flexible, fickle and just beyond reach.

6 "Botometer by OSoMe." Botometer® by OSoMe. Accessed May 02, 2018. https://botometer.iuni.iu.edu/#!/.