

## Emancipation of the public through Radio, Internet and the *Hive-Mind*



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## Emancipation of the public through Radio, Internet and the *Hive-Mind*

Throughout history, the utopian dreams of new media as great emancipator of the public have gotten subverted by the works of pragmatic application of new media in their respective political, historical and economic environment. Radio was, for instance, considered a great emancipator of the public who were previously subjected to the whims of wire companies who controlled the flow of information. Radio was to grant the public autonomy and freedom from socio-political forces. However, these dreams were soon to be extinguished for the sake of navy safety regulations (Douglas).

But this is not the only time this emancipatory dream of amateurs has been forced into submission. In the mid-nineties the same dreams surrounded the new medium called the Internet. The Internet was presented as borderless and without restrictions (Helfand). Amateurs were told they had the opportunity to better themselves through the means of the Internet and thereby achieving their goals as autonomous human beings.

However, since the turn of the millennium, the discourse surrounding the Internet had changed into reports on loss of privacy and the potential power of existing power structures. Instead of emancipation, the public was confronted with a system of control that constantly surveils individuals with the use of extensive networks of information, which the state and well-established institutions use to empower themselves under the banner of safety or extended service. It would seem that the Internet would undergo the same cyclical process of dashed emancipatory dreams as was done before with radio.

Should the public then be reconciled with the idea that sometime in the future a new medium will briefly reinstate individual liberties? This notion seems somewhat pessimistic assuming that the existing power structures will simply reassert themselves to undermine those individual civic liberties. I am therefore arguing that amateur users should break through this cycle by asserting themselves as *netizens*<sup>1</sup> who will control the flow of information on the Internet without governmental or institutional intervention. To illustrate this point on the ongoing battle over the domination of the Internet, I will refer to the Wikileaks affair as a case study. It is through this affair that the public has been shown to what lengths governmental agencies are willing to go in order defend the state. I will illustrate that Wikileaks has reignited this emancipatory dream through the exposure of the powers-that-be. Wikileaks holds up a mirror to the powers-that-be by showing that the digital technology used to control, can also be used to surveil the government in turn.

But how can the amateur user hold on to this reignited dream and not let it slip away like it did before? The user is now in the unique position where anyone with a computer is actually in possession of a medium to communicate with others without the intervention of institutions<sup>2</sup>. The ubiquity of the Internet has given us, users of the Internet, a critical mass whose power manifests itself in the form of an ever growing *Hive-Mind* of online communities who are not bound by geographically determined laws. *Netizens* ought to rise up against the culture industry and the institutional power which try to manipulate the public through fear and misinformation in order to secure their respective position of power. They need to break through the cyclical process of increasing governmental control over new media.

I have therefore created the following claim:

*Netizens* must break through the cyclical process, of amateur culture being replaced with the governmental and corporate control, by embracing the *Hive-Mind* as a new form of political power.

In my argument I will describe the cyclical nature of this process by showing similarities between the advent of wireless technology and the Internet. I will start out with an archeological account, of the radio up to the point where governmental control started taking over. I will then describe the battle over the airwaves that took place between amateur culture and governmental control. After the section about radio I will argue that the Internet is going through a similar process of emancipatory notions being subverted by governmental agencies.

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<sup>1</sup> Citizens of the Internet.

<sup>2</sup> apart from the Internet providers

In the end I will conclude with an explanation of the term *Hive-Mind* and how it is supposed to help *netizens* to rise up against suppressing governmental and corporate institutions.

In order to substantiate my claims I will rely on the works of Susan J. Douglas. I will use a similar methodology in the respect that I will also create an archeological account, of amateur culture being subverted by governmental powers, by using advertisements and texts in popular media at the time. However, where Douglas only focuses on a single medium, I will show that the process is cyclical in nature. I will illustrate, similar to Erkki Huhtamo, that the utopian notions are actually recurring elements with underlying motivations of emancipation. However, in the concluding section of this article, I will depart from Huhtamo's work by placing my faith in the *Hive-Mind* to break through this recurring process.

### Cyclical nature of emancipatory dream:

In the following chapter I will illustrate how the radio and the Internet are similar in the way that amateur culture have gained dominance over their respective platforms, only to have them taken away by governmental control and commercial interests. Radio and Internet are in that respect more similar to each other than other media such as television or the telegraph. Although these inventions were also accompanied by utopian and dystopian notions of the future, they do not share the same amateur culture which seems essential to the idea of public emancipation through new media. This was mainly because it was too cumbersome to create a telegraph considering the expensive copper wiring involved. The television also did not reach the amateur culture due to technical difficulties, which made it very hard for amateurs to recreate the device (Elsner, Mueller, & Spangenberg, 1994). Similar to Tim Wu methodology in his book "The Master Switch: The Rise and Fall of Information Empires", I will show that amateur cultures go through recurring processes of freedom being sacrificed for governmental and commercial interests (Leonhardt, 2010).

### Radio as emancipator

In 1896 Irish-Italian inventor Guglielmo Marconi unveiled his first version of the wireless telegraph which could send dots and dashes by wirelessly transmitting electrical energy through the air. In 1899 he presented his invention in the highly publicized Cup races, in which he demonstrated the possibilities of ship-to-shore communication and its capabilities of gathering news. His invention was met with awe by the public who was still getting accustomed to the networked communication of the telegraph and the telephone through the use of wire. The notion of invisible connections between places seemed magical and incredible (Douglas, *Amateur Operators and American Broadcasting: Shaping the Future of Radio*, 1986). This incredible demonstration ignited the utopian notion of the radio being the great emancipator for the public. This was derived from the notion of its magical capabilities to send content to one another without any tangible evidence of a connection. The new possibilities of this magical device seemed without limit.

It was the potential autonomy and spontaneity of such communication that gripped Americans' imaginations: People could talk to whomever they wanted whenever they wanted, no matter how much distance or how many obstacles intervened. This technology would help them transcend the social and economic forces [...] (Douglas, *Amateur Operators and American Broadcasting: Shaping the Future of Radio*, 1986, p. 40)

As described by culture and communications expert Susan J. Douglas, the American public was imbued with a sense of autonomy and the ability to circumvent social and economic power structures. As seen before with the telegraph, the telepathic ideal of constantly flowing information between people without intervention had also taken hold of the wireless telegraph. Marconi was aiming for the wireless telegraph to become a valuable competitor of the cable telegraph. He would thereby be ridding the public of the 'monopolistic serpents' who controlled the wire-industry by removing their dependence on their system of wires needed for communication purposes (Douglas, *Amateur Operators and American Broadcasting: Shaping the Future of Radio*, 1986). Marconi wanted to emancipate himself from the dependence created by the wire companies by creating a medium that would be able to work without the use of expensive wiring, operators and governments who would need to invest in laying such wiring as was the case with Samuel Morse's telegraph in 1842 (Devine).

This ideal would later also imbue the current-day new media called the Internet making this utopian notion clearly identifiable as an reoccurring train of thought, or *topoi* as defined by media archeologist Erkki Huhtamo in his 1996 article. *Topoi* are ideological constructs of thoughts that occur according to a recurring formula (Huhtamo, 1996). In this case the reoccurring aspect of the utopian dream entails the possibility of communication with complete freedom and without authorization or surveillance from either the telegraph operator or governmental institutions. Direct communication to anyone would facilitate the possibility of obtaining information from multiple sources, which would enable people to base more objective opinions through a plethora of presented opinions and information. Radio would give amateurs the possibility to join a global community in which information would flow freely. This is exemplified through Waldemar Kaempffert claim of the radio's power to connect those who would normally remain distant: "[a]ll these disconnected communities and houses will be united through radio as they were never united by the telegraph and telephone." (Leonhardt, 2010).

Between 1906 and 1912, when the first radio boom took place, the amateur operators of middle class white boys and fathers took hold of the airwaves. In November 1905 the first advertisements for non-professional radio sets started making their way to the popular media. In the *Scientific American* issue of 20 November 1905 the *Telimco Wireless Telegraph Outfit* was presented for \$8.50 making the newfound wireless technology obtainable without corporate sponsorship. The radio had drifted into the price range of the 'American Joe' allowing amateurs to manifest all the before mentioned utopian notions of emancipation. The amateur culture grew immensely; clubs were formed, magazines were created, registries were made to enhance the ability to connect to others etc. By 1910, the *Electrical World* issue of 21 July reported that there were at least 800 wireless devotees out there with their own station in Chicago alone (*Electrical\_World, The "Wireless" Devotees of Chicago.*, 2010). This growth is also validated by the Wireless Association of America whom claimed to have 3000 members in their January issue of *Modern Electrics* of 2010 (W.A.O.A, 2010).

This growth could be ascribed to the invention of the crystal radio set which made it possible for people to make themselves heard. This radio set was inexpensive and relatively easy to create and modify. This caused a surge of amateurs who would start creating their own radio sets to the point of pervasiveness where the creation of such a set was fully explained in the manuals of boy scouts. And although I cannot make any hard claims on how ideological ideals took hold of the amateur culture, I have construed amateur use of the radio as physical manifestations of these visions. Or, as Douglas puts it: "[t]he ways in which the amateurs came to use wireless to contact strangers, to make friends, to provide communication during disasters, and to circumvent or antagonize private and governmental organizations-were enactments of the previously articulated visions." (Douglas, *Amateur Operators and American Broadcasting: Shaping the Future of Radio*, 1986, p. 43)

However, with the rising amount of amateur users, the fear of congestion became more prevalent (Goldsmith, 1912). Although the airwaves seemed infinite before, the rise of amateur use started interfering with the uses of the navy and governmental institutions. Before 1912 there was no spectrum allocation to speak of. This meant that everybody would use random frequencies which could be interrupted by others (Douglas, *Amateur Operators and American Broadcasting: Shaping the Future of Radio*, 1986). This would be the beginning of the battle over the airwaves in which governmental and institutional control would exceedingly gain control over the content on the airwaves, thereby dashing utopian notions of freely flowing information.

### The battle over airwaves

However, when the first radio boom took place from 1906 to 1912 the number of amateur users expanded so dramatically, that it was considered a growing 'mania' of wireless telegraph stations by the October issue of the *Electrician and Mechanic* magazine of 1908. "T[he] wireless telegraph 'mania' has reached a high state of development in the Monumental City, the majority of amateurs using the latest methods of tuned systems." (*Electrician\_and\_Mechanic*, 1908) The growth of the amateur culture started congesting the airwaves, making it hard for officials, such as police and navy personnel, to use the device to their proclaimed potential. In 1907 the growing use of radio also caused a growing concern of the lawlessness of the airwaves in the May issue of

*Electrical World* when they claim a radio troll<sup>3</sup> was purposely interfering with police communication (Electrical\_World, Wireless and Lawless, 1907). The police had no manner of detaining the troll since no laws had been taken into effect yet. The congestion noted by Goldsmith and the troll illustrated by *Electrical World* gave rise to notion of controlling the airwaves. However, the amateur operators already foresaw the growing influence of the U.S. Navy<sup>4</sup> in their affairs. This growing concern among amateur operators manifested itself within the community in clubs such as the Wireless Association of America who claimed to impose 'powerful pressure' on governmental regulation in their January issue of *Modern Electrics* of 2010 (W.A.O.A, 2010).

The stage was set for a battle between amateurs versus governmental institutions. By 1910 the amount of amateur users surpassed that of the navy. The ubiquity of the radio created a situation which was exceedingly spiraling out of governmental control. The government wanted to regain control on behalf of the navy lobbyists, by clearing the airwaves for professional use only. However, this would not go down well with the public who had come to rely on the radio for entertainment and amateur engineering purposes. The amateurs had established a feeling proprietary right to the airwaves. They argued that the amateurs were responsible for many of the developments of radio technology while the Navy had been dragging their feet.

The amateurs could not accept that the Navy should suddenly step in and claim the airwaves for itself in the name of national security when the Navy had done little to develop or refine wireless. [...]The amateurs claimed that their early enthusiasm and their technical work had entitled them to a sizable portion of the territory [...] They granted that there were a few outlaws in their midst, but they argued that the alleged violations did not justify the exclusion of all individual operator by the government. (Douglas, Amateur Operators and American Broadcasting: Shaping the Future of Radio, 1986, p. 52)

This meant that the government needed a marketable reason to take back control over the airwaves which would not be directly linked to the power of Navy lobbies. They needed something that could stand as a relevant metaphor in the emotional truism that human lives are more important than experimentation on the airwaves. Then on the 15<sup>th</sup> of April 1912 they received their marketable reason.

The unsinkable ship, the Titanic, sank. The sinking ship caused the deaths of over 1500 people among which the heroic radio operator Jack Phillips who had gone down with the ship in order to continually send a distress signal to receive aid for the surviving members of the disaster (Bride, 1912). Jack Phillips was deemed a hero whom had sacrificed his own life to save the others. He became a symbol for the true purpose of wireless technology. When the Marconi Company then claimed that amateurs clogged up communication for efficient rescue to occur, the amateur operator was deemed detrimental to the heroic actions of Jack Phillips. The amateur operators were especially frowned upon for the false reports made about the Titanic moving safely to Halifax (The Titanic and the Radio Act of 1912, 2001). The need for regulation is then overly stipulated by the press, the navy and the Marconi Company as exemplified by this quote from the New York Herald article called *President Moves to Stop Mob Rule of Wireless*:

The necessity for regulation to-day stands out so clear that the White House conference found no time to discuss it at all. Instead the discussion was merely general, with admission by all that the chaos in the wireless field was a disgrace to the nation, and that severe penalties should be prescribed for infringements taking place at a great crisis on the seas like the disaster of yesterday. [...]Indeed, officials here comment on the fact that the hundreds of lives on board the Titanic were at the mercy of the unscrupulous wireless operators, who might even have called off the vessels that started for her relief by adding to their list of criminal messages one saying that the ship was safe and needed no assistance at all. (New\_York\_Herald, 1912)

These reports on the detrimental effects of amateur operators were enough reason for congress to pass the Radio Act of 1912 banishing all amateurs to the FM short waves which were deemed useless at the time. All radio operators were then forced to have licenses, which required several tests to qualify for. Fines would also be placed on malicious use of radio, creating an all-round conformist movement of the amateur culture.

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<sup>3</sup> A troll is someone who tries to intentionally disrupt communication by making false claims regarding identity or authority (Wiebenga, 2011)

<sup>4</sup> The largest governmental user of wireless communication (Douglas, Oppositional Uses of Technology and Corporate Competition: The Case of Radio Broadcasting, 1993)

One might say the amateurs had already lost at this point. It would seem that the amateurs were facing a problem which seemed unsolvable. They were restricted from using the airwaves that were usable. The amateur culture was supposed to die out due to the technological problems the amateurs would face in the short wave spectrum. "Put 'em down below 200 meters, and they'll soon die out" was the phrase uttered by a radio official (Binns, 1922). However, the governmental institutions that created the new law did not encompass the shared ingenuity of thousands of amateurs working towards the same goal. Most of them are working without any form of organization, isolated from one another. Like ants in a colony working towards the common goal of extending and expanding the nest. This colony of amateur developers of radio produced, among others, Edwin Howard Armstrong whom created the technology to make the short waves usable through amplification (Tsividis).

This new technology caused a second radio boom free from governmental interference, since they circumvented the technological barrier put before them in 1912. Then the First World War happened, causing the United States to intervene in 1917 after several years of remaining neutral. But even several years before the intervention, the amateur culture foresaw further regulation in the name of national safety and the safety of the people fighting overseas. The amateurs tried to prove their worth by mentioning that it is of strategic importance to have 20,000 American 'watchdogs' all over the United States transmitting valuable military information from one station to the others (Keeley, 1916). This notion is also exemplified by the *QST*<sup>5</sup> issue of March 1917 when they state: "[w]e certainly hope that we shall be successful in showing the authorities that we are sufficiently well organized to make it a military advantage to keep us going." (WAR?, 1917) However eloquent they presented their case; on the 7<sup>th</sup> of April in 1917 the government decided that all private and commercial use of the radio was prohibited. Existing radio stations were either rendered useless or taken over by governmental institutions (How the Government Seals Radio Apparatus, 1917).

When this ban on amateur use of radio was lifted on April 15<sup>th</sup> of 1919, the United States Navy immediately tried to monopolize the airwaves. When this effort failed due to the enthusiasm of amateurs; a navy station tried to inaugurate the amateurs instead (Amateur Radio After World War One). Then in the 1920's the private and commercial uses for radio reigned supreme, causing the installment of regulatory institutions such as the Federal Radio Commission and its successor, the Federal Communication Commission. In 1934, the Federal Communication Commission mandated that all radio stations are in service of the federal government who would look after well-being of the public. They would thereby subvert the notion of public emancipation through radio by deeming the federal government more important than individual liberties.

To summarize the previous sections on wireless technology; the advent of the first wireless technologies sparked a utopian dream of emancipation in the public. This can be either individual emancipation or public emancipation in the strengthening of the democratic utopia.<sup>6</sup> Through these utopian notions, a certain amount of enthusiasm is created among the public. This enthusiasm is then manifested in the pervasiveness of the medium and the communities that are created through the affordances of the medium. When these communal forces grew stronger, the government (fearing its own reduction of power) needed to fight back to intervene with the communal spreading of information that was taking place. However, they are beholden to the public and, therefore, needed a reason to do so. Both The Titanic and The Great War provided excellent reasons to grasp control without losing favor of the public. The argument of safety and security were used to mesmerize the public into believing that the added regulation would be beneficial to them. These steps would be the predecessors to the Communication act of 1934 which would grasp control of the content of the wireless technology altogether.

### The Internet as emancipator:

Now that I have shown the process the wireless/radio has gone through, I am going to describe the advent and development of the Internet in a similar manner. I will then prove that there are similarities to be found between the radio and the Internet. Similarities we, as *netizens*, should be acknowledging in order to stop

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<sup>5</sup> A monthly magazine dedicated to Amateur Radio. created by The National Association for Amateur Radio

<sup>6</sup> This is the utopian notion that a government is purely a representation of the public and that it will only serve the well-being of the public.

history from repeating itself. Right now, in the debate on Wikileaks and Net Neutrality similar forces are at work looking to regain power in an amateur culture. But before I will argue how Wikileaks and Net Neutrality relate to the process radio went through I am going to analyze a brief history of the Internet as emancipatory medium.

And what better place to start the utopian notion of emancipation on the Internet then with the father of the modern day web, Tim Berners-Lee. He created what is now known as *the web* in 1990 with a simple idealistic notion: "that any person could share information with anyone else, anywhere" (Berners-Lee, 2010, p. 1). He believed that the egalitarian principles of the web are the reason why the web developed into the ubiquitous tool of free speech. This idea of sharing information is imbued in emancipatory thought. In the user's ability to inform himself, he is no longer dependant on the flow of information given to him by existing socio-political forces.

The same message was being delivered through popular media in the nineties when CompuServe advertises the Internet as a "[l]imitless source of information and resources" (Compuserve, 1991). Two years later the CBC reports in 1993 that the Internet is used to "[c]ommunicate across cultures and continents". In the same coverage they also quote an anonymous user in saying "Internet is liberty, friends all over the world, information, anonymity, part of our every-day life and much, much more" (CBC, 1993). In these statements there is an easily identifiable notion of freely flowing information, communication and liberty. The internet is also equally associated with democracy through people's power to gain information autonomously. Vice president Al Gore would claim in his 1994 speech from the International Telecommunications Union (ITU) that: "In a sense, the GII will be a metaphor for democracy itself (...) The GII will not only be a metaphor for a functioning democracy, it will in fact promote the functioning of democracy by greatly enhancing the participation of citizens in decision making" (Manen, 2011, p. 5). In this speech there is an emancipatory aspect prevalent in the idea of added public participation in politics.

In academic sources from the mid-nineties, the Internet is presented as an electronic frontier, owned by no one and free from socio-political forces. This notion is exemplified by Jessica Helfand who, in 1995, wrote: "The truth is, here, nobody is in charge. The Internet is at once borderless and structured, a potentially infinite space with no geographical, political or material boundaries." (Helfand, 1995)

It was believed that the freedom of the Internet would remain, since there was no governmental jurisdiction in cyberspace. Cyberspace would lie outside the borders of any government. As John Perry Barlow writes in his *Declaration of the Independence of Cyberspace*:

We have no elected government, nor are we likely to have one, so I address you with no greater authority than that with which liberty itself always speaks. I declare the global social space we are building to be naturally independent of the tyrannies you seek to impose on us. You have no moral right to rule us nor do you possess any methods of enforcement we have true reason to fear. Governments derive their just powers from the consent of the governed. You have neither solicited nor received ours. We did not invite you. You do not know us, nor do you know our world. Cyberspace does not lie within your borders. Do not think that you can build it, as though it were a public construction project. You cannot. It is an act of nature and it grows itself through our collective actions. (Barlow, 1996)

Barlow, hereby, shows the established powers-that-be to leave the *netizens* alone. He criticizes the government for taking control over cyberspace through the Telecommunication Act of 1996. In his manifesto there is the same proprietary right present to cyberspace as seen before in the amateur culture of radio before the Radio Act of 1912. He claims that the Internet surpasses petty squabble within countries and that the new global village created for the users are borderless and without influence of socio-political forces. Through their collective actions, like an ant in a colony, they exercise power in the intangibility of cyberspace. These notions were then manifested in a public upheaval, known as the Black World Wide Web Protest. In the same year as the passing of the Telecommunications act the Center for Democracy and Technology called onto all webmasters to turn their website black to show their discontent with the new legislation (Norwick). This law would be the first blow to Internet users causing them to rise up against their government through protest. This law, just like the Radio Act of 1912, set the stage for the battle over the Internet and the freedom to express oneself by any means possible. However, the power of the users was minimal at the time the



Telecommunications Act was passed by Congress. Due to the lack of people with the technological capabilities there were only few who had the expertise to add content to the web and had the ability to protest in Black World Wide Web Protest. This is why their efforts went down in history as a brief report on CNN, CBS and several other news stations.

Although the first blow had been given, the Internet was still considered an emancipatory medium which could not be destroyed by mere physical governments. This idea is still prevalent in academic sources after congress passed the Telecommunications act when Matthew R Estabrook writes in the same year:

The Internet takes this information revolution even further [...]. Empowering people in this way has reduced the influence of the traditional media. [...] Perhaps most important, the Internet is providing the means for ordinary citizens to subvert long-existing power structures, especially the taxes, tariffs, and regulations imposed by governments. (Estabrook, 1996)

Estabrook hereby shows that, even though the government is starting to take control of the content on the Internet, the hope of emancipation remains the fundamental building block to fuel the amateur desires of subverting existing agencies of authority and power.

### Battle over the Internet:

In early nineties, the Internet promised untold fortune and socio-political change for the good of the public. However, there is a cyclical aspect to these utopian dreams. The notions of emancipation were soon to be replaced with pessimism by the burst of the Dot.com bubble of March 10, in the year 2000. Similar to the first wireless bubble of 1906 to 1912 (Douglas, Amateur Operators and American Broadcasting: Shaping the Future of Radio, 1986), the utopian notions in the media caused many individuals to invest in the potential of the new technology. When this potential was not translated into economical gain, the well of financial potential ran dry instigating an exodus of investors (Galbraith & Hale, 2003). This exodus caused the bubble to burst. The bursting bubble then created a springboard for more pessimistic notions on the newfound freedom associated with the Internet. All the American Government needed then was a disaster similar to the Titanic to regain control over the amateur ruled medium.

Then, when the United States was attacked on the 11<sup>th</sup> of September 2001, a growing concern with safety would permeate the public. This left little room for notions of emancipation in a time when the American public would require the aid of governmental agencies to protect them. Once again the similarities to the wireless technology of the beginning of the 20<sup>th</sup> century are uncanny. The Titanic disaster is similar to 9/11 in the respect that they both caused a discursive shift in their respective technologies from utopian to that of safety concern.

In the wake of the terrorist attack, which destroyed the Twin Towers in New York and caused the deaths of approximately 3000 people, the word 'terrorism' became the new political buzzword to re-establish the public's need for governmental control to protect the American (and later the European) public. This is validated by sociologist Jeffrey S. Victor who claims: "[w]hen a new kind of threat is recognized, political leaders commonly use certain rhetorical claims to increase their influence and power to deal with the situatio." (Victor, 2006). This manifested itself in the PATRIOT Act of October 26 of the year 2001, which reduced the restrictions for United States law enforcement to search e-mail, telephone communication, medical and financial information without a warrant (US House votes to extend controversial Patriot Act, 2011). The discourse surrounding the new legislation switched the Internet (as discursive entity) from an emancipatory tool, to that of surveillance for governmental institutions.

From then on, more and more surveillance concerns were emerging in academic circles and popular media. In the January issue of PC World of 2002 Anne Kandra claimed that user of the Internet should be wary about what they say and do on the Internet because of the PATRIOT Act (Kandra, 2002). However, I would consider it ironic that Kandra's attempt to inform the users, also helped to validate the notion that they should be scared of enraging the omnipresent eye of the FBI. The growing concerns with privacy and surveillance implied a fear for large corporations, law enforcement agencies and governments that still persist today. Just 3 years ago, an estimated 25,000 people protested in Germany in the *Freedom not Fear Protest* in which the public fought back

to regain the freedom that had been replaced with fear for powerful institutions. Similar concerns were uttered around the world creating a growing anxiety for information obtained by powerful institutions.

These developments sound very pessimistic for the users of the Internet, but the tools to resist these oppressive institutions had been developed as well. Manuel Castells notes in his 2001 book *The Internet Galaxy* the following: "In other instances, the technological vulnerability of the Internet offers the opportunity for individual or collective expressions of protest to disrupt websites of the electronic networks of government agencies or corporations targeted as representatives of oppression or exploitation." (Castells, 2001, p. 139) During the progression of governmental control over the Internet, DDoS attacks<sup>7</sup> became the favored method of protest. Applications were created to perform these attacks with the greatest ease possible. With applications such as the LOIC<sup>8</sup>, the DDoS attacks can be performed with little technical knowledge making it relatively easy for protesters to make their voice heard through cyberspace. In a later section, I will go into more detail about the power of Internet amateur culture but first I will finish the archeological account of the amateurs' emancipatory dream.

In 2006, a new way of control over the Internet sparked debate. This debate was about net-neutrality. Net-neutrality is the notion that all Internet traffic is considered of equal value. It is an anti-discriminatory concept that will not allow governmental or corporate traffic to take preference over amateur traffic (Manen, 2011).<sup>9</sup> When net-neutrality is taken out of Internet traffic, governments and corporations can control connections between groups of users. This would render the Internet an ineffective tool to protest existing power structures because the users would no longer be able to rely on the fairness of the information they have received. The abolishment of net-neutrality can also render support to protesters impossible. A small taste of this concept was prevalent in the recent developments regarding Wikileaks.

On 28 November 2010, Wikileaks releases 250,000 leaked embassy cables containing embarrassing and potentially revolutionary information. The weeks after the release of the cables, the contempt between the amateur culture and governmental and corporate power, was manifested over the Internet and through popular media. The founder of Wikileaks, Julian Assange, was deemed a terrorist whom endangered American lives. They used the post 9/11 terrorist-scare to provoke an emotional response in the public by saying that the leaking of the information might cause another terrorist attack. This argument was then used by governmental and corporate institutions to destroy the public's power to protest through financial support. Paypal, Visa and MasterCard refused donations to Wikileaks (Arthur, 2011), which was a clear violation of the original utopian notions of the Internet.

The public was supposed to be emancipated through direct interaction with others without intervention of governmental or corporate institutions. This violation was not taken lightly by the amateur culture. They took action through *Operation payback* by attacking these companies and opposing senators with DDoS attacks (Operation Payback, hoe werkt het?). The Cable gate affair reignited previously subdued notions of proprietary right of the Internet and the freedom it represents. The notions would manifest themselves in protest groups like Anonymous who grew immensely during the heated battle over the Internet. Viral videos added to this growth by asking: "Is Wikileaks really the greatest threat that we face? Or is it the response we are seeing in defense of the state?" (Foster, 2010).

In the last sections I showed that the Internet has been home to a battle of powerful institutions versus the amateur culture over dominance of the Internet. The Internet gradually turned from an emancipatory tool, to that of governmental and corporate control. But *netizens* are not powerless; they are in fact more powerful than ever. Although governmental agencies have increased their effectiveness through data-retention, better

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<sup>7</sup> Distributed Denial of Service attacks use a system where the users flood a website with requests for information packages. This causes intended users of the targeted website to have extremely long loading times rendering it ineffective.

<sup>8</sup> Low Orbit Ion Cannon

<sup>9</sup> We've not yet reached the point where net-neutrality through cable providers has been neglected but we should be wary of the mobile service providers whom increasingly provide mobile telephones with Internet services. Smart phones are growing in ubiquity every day causing us to grow increasingly dependent on the whims of telecom companies (Manen, 2011).

surveillance equipment and instrumental power over the infrastructure of the Internet, the public has also increased their effectiveness in protesting power. Or, as Clay Shirky puts it: “[a]s the communications landscape gets denser, more complex, and more participatory, the networked population [...] [has] an enhanced ability to undertake collective action.” (Shirky, 2011) The only leverage the governmental agencies have is that they are more organized than the *netizens* which starts them off as more powerful agents than the loosely connected individuals. However, when a certain critical mass of people is achieved, the individual protesters seem to turn into a sentient entity. This is what is generally known as the *Hive-Mind* or *Legion*. In the next section I will explain why *netizens* should embrace their power as member of a *Hive-Mind* and how this might be able to emancipate the public in such a way that amateurs no longer need to be restricted by corporate or governmental control.

## The Hive-Mind:

The concept behind the *Hive-Mind* originated from the realm of software piracy. Before the downfall of Napster in July of 2001, these oppositional users of the culture industry (a.k.a pirates) relied on centralized bases of operation, such as the Napster program. When Napster was shut down, the pirates understood that it would be better to decentralize the base of operations among the users for as much as possible, forcing the culture industry to attack multiple targets at once to bring down the system. Then BitTorrent was born, this was a decentralized system which had no central point of attack for institutions such as RIAA<sup>10</sup> and MPAA<sup>11</sup>. They were then forced to start litigation campaigns against individual users and the hosts of trackers of torrents instead of a single faceless entity such as Napster. However, this created the effect that the litigators were demonized in the media for claiming obscene amounts of money from people who barely had enough to pay the rent (Harvey, 2009) (Bylund, 2007). No institution can start prosecuting thousands upon thousands of people at once without enraging the public. This was also the inherent power of the system; they cannot attack all of the pirates at once because there are too many of them. The only hope they have is to scare the pirates into hoping they will not be the unlucky individual to be sued. This did not mean that pirates were deterred from sharing content; most of them took comfort in the notion of *safety in numbers*. The anonymity granted by a mass congregation of people is granted political power through the willingness of users to break conformity. When a mass of protesters are congregated, each growing member adds to the safety of all others. This causes a vicious circle of additional protesting power.

The same principle is present in the online protests against the Visa, MasterCard and Paypal. Through the decentralized nature of the DDoS attacks it becomes very hard to take action against it. This is especially true since there appears to be no centralized point of origin to the attacks. It also lacks a centralized source of intelligence to organize these attacks. This is why it is called the *Hive-Mind*.

A *Hive-Mind* is the emergent property of apparent sentience that arises from the behaviors of a colony of individuals. Just as your neurons, without individual intelligence, interact as a unit to become a brain, so one can view a hive of bees or a colony of ants interacting as a unit to become a mind. (Hive-Mind)

The *Hive-Mind* is not controlled by anyone, nor is it a fixed group of people. Each individual has little power by himself, but when an idea is popularized within the *Hive-Mind* the idea is propagated in thousands of communities at once causing a massive surge of power to wash over the potential target. It is also commonly referred to as *Legion* with the slogan: “I am Legion, for we are many”. In this metaphor, a similar notion of a single sentience being created through the souls (or in this case *netizens*) of many, is present.

Where is the *Hive-Mind* situated? The *Hive-Mind* has no geographical location. It consists of *netizens* all over the world whom are actively engaging themselves in online communities. Through weblogs, image boards, movie platforms, e-mail and social network sites the *netizens* are all interconnected to some degree and are therefore part of the *Hive-Mind* to some degree as well. Especially in larger online communities, such as the image board 4Chan (Anon, 4Chan, 2003) and the weblog Reddit (Anon, Reddit, 2005) there are mass congregations of the more active members of the *Hive-Mind*.

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<sup>10</sup> Recording Industry Association of America

<sup>11</sup> Motion Picture Association of America

A manifestation of the *Hive-Mind* is the protest group called Anonymous which is commonly associated with 4Chan. Because Anonymous is derived from the concept of the *Hive-Mind* there is a huge overlap in ideology in the following outtakes from A LETTER FROM ANONYMOUS, 9TH OF DECEMBER 2010.

Anonymous is a spontaneous collective of people who share the common goal of protecting the free flow of information on the Internet [...] we can be anyone, anywhere, anytime. [...] Accordingly, Anonymous is not always the same group of people: Anonymous is a living idea. [...] We are living consciousness. At this time, Anonymous is a consciousness focused on actively campaigning for the free flow of information and accountability by our public institutions. [...] We are strong. This is why the government is moving on Wikileaks. This is what they fear. They fear our power when we unite. (Anon, A Letter from Anonymous, 9th of December 2010, 2010)

As Internet will become more ubiquitous the *Hive-Mind* will grow. As more people take part in online discourse anonymously, the power of the medium grows and its protesting power grows. Through the Internet, amateurs are interconnected beyond geographical borders and national ideology. This is not to say that national ideology presented through mainstream media has lost its power altogether. But as more people rely on the *Hive-Mind* as information source, less power is granted to corporations and governments. They should therefore embrace the notion of the *Hive-Mind* as a form of political power that grants power to the users of the Internet and the public as a whole.

Each individual has political power and through the *Hive-Mind* those individual powers are directed towards the needs and wants of *netizens*. The *Hive-Mind* is comprised of millions of individuals whom all voice their concerns in their own way. They have been granted this power to voice their concerns through the interconnectivity that the Internet provides. There is no central base of attack, nor can anyone or any group truly represent the *Hive-Mind*. It is a more direct form of democracy through the power to direct protests without the need for a central base intelligence. A central base of intelligence can be compromised by socio-political forces. The *Hive-Mind* is free from corruption or compromise making it a relentless force that is greater than the sum of its parts.

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