Odsjek za anglistiku

Filozofski fakultet

Sveučilište u Zagrebu

DIPLOMSKI RAD

Virtual Communities: Between Culture and Economy

(Smjer: književno-kulturološki)

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Ak. godina: 2014./2015.

Abstract

From its earliest years, the development of the Internet was grounded in economic relations, be it with the government or private investors. This condition spilled over into the Web development and all of its corresponding features, including the people populating the Web – thus making an impact on a new form of community: a virtual one. The economic relations of the real world affect the creation of new forms of labor, referred to as immaterial labor, which is produced by a new type of worker. This new type of worker is endemic to the new conditions of labor most visible in instances of human interaction, participation, cooperation and collaboration in virtual communities, best examples being the social networking sites. The collaborating subject, i.e. the producer is at the same time both a consumer and a producer of the products of the social production happening in the virtual world. It is referred to as a *prosumer*. The concept of a prosumer is closely linked to the new forms of economic gains for the individual users. The gains need not be monetary, they also include psychological satisfaction for the individual. This psychological effect of participating in virtual communities is termed affective gain, or affective reward. In addition, the Web users' participation in online communities is one of the main sources of profit for the large companies online owning the said social networking sites. However, there are certain aspects of collaboration online that are not susceptible to profit extraction. They include, among other things, the open source culture online. Open source movement allows the individual to be excluded from larger monetary exchanges and capitalist relations operating online. It pits users' collaboration – seen as one of the main sources of profit – against market relations online. All these various aspects of our virtual lives are explored in detail.

Key words: the Internet, the Web, virtual community, neoliberalism, social production, collaboration, prosumer, immaterial labor, affective reward, open source

1. Introduction

The Web experience is both cultural and economic at once. The purpose of this thesis is to show how the Web has over time become a market in itself where cultural activities started to be exchanged for their monetary value. The thesis deals with the ways in which the collective activity of the Web users gets exploited for profit by capitalist entities online. The Web users, therefore, become caught in the crossroads between their cultural activities and economic relations. In other words, the collective performance of the Web users reflects both cultural and economic ideologies relating to the emergence of the Internet and the Web.

Along with the emergence of the Internet and the Web, corresponding cultural ideologies have been engendered in them. These ideologies reflect various – most often utopian – ideas of what changes the new information technologies will bring for the individual users, ranging from the ideas of individual freedom – most distinctive for the US cultural legacy which places a rather significant emphasis on individual freedom, coupled with the notions of self-sufficiency and self-reliance – to the ideas that the Internet can bring about changes on a larger social scale, such as creating a more democratic society.

These ideologies are, as mentioned, more often than not, mostly utopian, and they do not reflect the actual conditions of the Web experience. From the early years of the Internet development, these ideologies have been in conflict with the realities of the Web experience which entail various forms of discrimination of its users, attempts of control and centralization of the Web, and even obstacles in accessing the Web. On the other hand, the cultural ideologies become intertwined with the economic element on the Web which seeks to commodify the Web users' collective activities. These activities are turned into a form of labor performed by users via the interference of capital interests looking to make profit from the users, which then become not only users, but workers on the Web.

The type of labor produced by these workers is referred to as immaterial labor and it produces, according to Hardt and Negri, "relationships, communication, and knowledge," which then become goods "appropriated by capital for economic needs" (qtd. in Fuchs 188). In this way, the Web users become workers whose labor is monetized by different capitalist forces online, and they themselves become not only workers, i.e. producers of immaterial labor, but also consumers of the same labor. They become a new economic entity – the prosumer.

The prosumers are a significant element of late capitalism, or post-Fordism, in which the working conditions of production are more flexible and more precarious, due to the fact that in post-industrial capitalism, the material infrastructure is no longer a classic factory which provides a fixed time and place of employment, but rather includes areas of production such as the Internet, and as part of the virtual communities. The existence of virtual communities is most obvious in social networking sites, which are then the new infrastructure where cultural production and immaterial labor can take place. Terranova argues that "[t]he outcome of the explicit interface between capital and the Internet is a digital economy that manifests all the signs of an acceleration of the capitalist logic of production" (47).

In other words, the economic logic of late capitalism has migrated online; and the Web has become an extension and continuation of the market relations previously contained in the non-virtual, physical world. Terranova claims that "the Internet is animated by cultural and technical labor through and through, a continuous production of value that is completely immanent to the flows of the network society at large" (34). Not only the economic relations, but the cultural, and some larger social aspects of human interaction have also migrated online.

However, it is important to note that while online activities are perceived as labor and commodity to be sold, they are not necessarily seen as such by the users themselves. The labor the Web users perform can be said to be balancing between work and leisure for the individuals. That is, the reason the system of exploitation online actually works is because the laborers, i.e. the prosumers, do not perceive it as such, but rather, they receive affective reward, or affective gain, which Petersen refers to as "the immense joy and pleasure [users] get out of sharing (…) online" ("Loser Generated Content").

Additionally, the Internet and virtual communities show that not every aspect of social interaction must necessarily be monetized. This is most observable in the open source movement, which is an example of voluntary work online, and which does not necessarily get extracted for profit by large profit-seeking companies online. It is, as elaborated by Terranova, "a model of software development in which the underlying code of a program – the source code, a.k.a. the crown jewels – is by definition made freely available to the general public for modification, alteration, and endless redistribution" (49).

Therefore, in order to demonstrate all the aspects of how the system of cultural interaction and the creation of virtual communities work, along with the capitalist exploitation of them, I start with the description of the Internet and the Web's historical development, from their early renditions in mid-20th century to their contemporary versions in the 21st century. From there on I intend to show the collision of the realities of the Web experience with the utopian visions and ideologies that came into life with the first computers and networks connecting them. A great deal of these utopian ideologies are, for the purpose of this thesis, taken from the writings of the creator of the World Wide Web, Tim Berners-Lee.

The main part of the thesis contains detailed accounts of the emergence of virtual communities, the emergence of the concept of prosumers and the labor they perform in the social production online, and finally, of how that social production is exploited for profit by large companies operating primarily online. The thesis ends on a more optimistic note, with the description of the open source movement as an instance which demonstrates the possibilities of liberation for the individual from both the elements of control online and processes of exploitation.

2. History of the Internet and Web Development

Before the emergence of the Web, an infrastructure for its feasible existence had to be set in place. The Internet provided such infrastructure inasmuch as it allowed computers to be linked together and communicate. Before the Internet, Berners-Lee notes, computers were linked by cables and the only way for them to communicate was through software programs that had to be installed on each of the connected computers. These software programs would then communicate with other software programs installed on other computers. The process was very impractical since it would allow only a limited number of computers to communicate simultaneously. It would take hundreds of cables for a computer to be able to communicate with others in proportions and quantities we are familiar with and accustomed to today. The Internet was, in this sense, a revolutionary invention which offered a network for simultaneous communication between an unlimited number of computers without having to use cables as the only means of connection (*Weaving the Web* 19-20).

Berners-Lee states that

> [t]he Internet is a network of networks. Its essence, though, is a set of standardized *protocols* – conventions by which computers send data to each other. The data are transmitted over various carriers, such as telephone lines, cable TV wires, and satellite channels. (…) When a computer is ready to send its data, it uses special software to break the data into packets that will conform to two Internet protocols that govern how the packets will be shipped: IP (Internet Protocol) and TCP (Transmission Control Protocol). (…) [The software] sends the packets out over the phone or cable wire, and the receiving computer uses its own Internet software to put them back together. (*Weaving the Web* 20)

This action, made possible by the 1970s, could be executed only by computer experts working with the said software. However, the arrival of the electronic mail alleviated much of the problem associated with sending and receiving packets of data. In the 1980s, according to Cortada, IT experts in Armonk, New York decided that e-mail should become the standard means of business communication among different sales offices. This practice held on and "the result was that in more than 150 countries, business e-mail became ubiquitous" (15). These processes of sending data via computers were, of course, preceded by the development of the Internet, which took place in the US.

With the threat of WWII in the US, the Department of Defense started funding the development of electronic technologies, mostly focusing on military computer projects and applications. In the words of Cortada, these computer projects were used "to decipher enemy encrypted communications, to prepare artillery and bombing firing tables, and later to perform the calculations for designing atomic weapons" (7). Soon afterwards, in the early 1950s,

> [t]he Cold War and the Korean War motivated federal officials to support further technical developments in what clearly was still an expensive, complex and unstable technology. They relied largely on academic institutions (such as Massachusetts Institute of Technology) and the private sector (such as IBM, NCR, and General Electric [GE]) to do the actual work. By the mid-1950s, companies like Univac and IBM were transforming their government-supported machines into commercial products. (Cortada 7)

In other words, the development of computers and networks for their communications was primarily motivated by the American fear of foreign enemies. Streeter claims that "the internet was to a large degree created by people within or funded by the U.S. Department of Defense's Advanced Research Projects Agency (ARPA, with a *D* for *Defense* for a time

added to make it DARPA), a Cold War institution created in the 1950s specifically to counter the Soviet Union's perceived technological superiority in the wake of Sputnik" (23). The funding of such projects was left to the US government primarily because no other entity could justify it, let alone finance it. In the words of Streeter, who paraphrases an MIT scientist, Vannevar Bush,

> [p]rivate enterprise (…) would be unable to take on the risks of basic exploration because it was too uncertain to justify investment. Government and nonprofit institutions like universities and the military, therefore, should conduct the initial, high-risk exploratory research and then turn the results over to industry to develop commercially exploitable applications; government-sponsored research yields practical benefits that can eventually be exploited by the business world. (24)

Therefore, at first, the Internet served as a means of countering the enemies' technological developments, and as such was funded solely by the US government, helped by the US military and various academic institutions. Nevertheless, from its early days it was envisioned as a possible investment for private companies which were to develop it further.

The American business environment proved to be an especially fertile ground for private investors to further the development of information technologies, even as early as the 1950s. Cortada argues that the US owes its leading role in information technologies to several factors: the American market which had already been using information technologies (such as tabulating equipment), large investment firms and the influx of federal funds (7). The technologies were most rapidly being developed in the US for these reasons. Cortada continues by saying that "US entrepreneurs were often some of the earliest to exploit the situation. This is the story of Silicon Valley and of personal computer (PC) makers, such as

Apple, of PC software providers such as Microsoft, and later of firms that leveraged the Internet, for instance, eBay and Amazon.com" (7).

In addition to this commercial element of the Internet, what marked its development from the beginning was, in the words of Streeter, "an unusual culture of informal, open, horizontal cooperation" (95). The Internet was not developed by a number of designated authors or scientists, or by a couple of information technology enthusiasts working in their garage, but rather by a cohort of skilled IT aficionados working independently of each other, and later collaborating on projects of similar interests. In other words, the early days of the Internet development were marked by a non-hierarchical, decentralized system of cooperation. Such working conditions for the early developers of the Internet offered a glimpse into a prospective future of a utopian decentralized world in which this network of networks provides a form of escape from the daily constraints of work and everyday life. This utopian vision was only one among many ideas which accompanied the history of both Internet and Web development, all of which will be elaborated in subsequent chapters.

The Internet having arrived, what remained problematic was getting people to openly put and exchange data through this network of networks. In essence, there was no place where certain bits of information could be stored. Data could only be sent to another computer, but could not be accessed or viewed by a third party – the one excluded from the exchange. The Web changed all this, and it all started with e-mail. Berners-Lee notes that "[e]-mail allowed messages to be sent from one person to another, but it did not form a space in which information could permanently exist and be referred to. Messages were transient. When the World Wide Web arrived, riding on top of the Internet, it would give information a place to persist" (*Weaving the Web* 18). In other words, the Web was seen as a layer on top of another layer – the Internet. In the words of Berners-Lee,

> [t]he Web is an application that runs on the Internet, which is an electronic network that transmits packets of information among millions of computers according to a few open protocols. An analogy is that the Web is like a household appliance that runs on the electricity network. A refrigerator or printer can function as long as it uses a few standard protocols – in the U.S, things like operating at 120 volts and 60 hertz. Similarly, any application – among them the Web, e-mail or instant messaging – can run on the Internet as long as it uses a few standard Internet protocols, such as TCP and IP. ("Long Live the Web" 83)

2.1. Net as an American Invention

The invention of the Web, and the Net before that, gave rise to the corresponding "place" they occupied – the cyberspace[1]. Since the Internet was from the beginning funded by the US government, it was perceived as an American invention in the collective consciousness of the Internet users. Even the Web creator, Tim Berners-Lee, having finished his work at CERN, and realizing that the Web was here to stay and be further developed by the rest of the IT community, stipulated that "[he] knew [he] had to move to the center of gravity of the Internet, which was the United States" (*Weaving the Web* 89). This was taking place in the 1980s when, according to Streeter, the Internet became commercialized (107). However, only in the 1990s did the Internet frenzy really take off, due to the creation of the first "freely distributed computer program called Mosaic, the first successful graphical Web browser" (Streeter 126).

[1] The coining of the word *cyberspace* is usually attributed to William Gibson who refers to it as the place "where the bank keeps your money. It's where a long-distance telephone call happens. It's this ubiquitous, non-physical place where increasingly a lot of what we think of as our civilization takes place" (qtd. in Hanson 348).

The 1980s were a time when the Internet became a business. Politically and economically, the US society and politics were governed by the neoliberal doctrine with the president Ronald Reagan as its US spokesman.

The late twentieth century economy represents a shift from the economic paradigm of an earlier economic era in which human labor was characterized by factory-like features; i.e. the value of the product of labor was equated with time spent producing a product, in a classical Marxist definition of labor theory of value. The economic form that exploits this exchange, in which surplus value is extracted by pricing the end product higher than the investments costs, is referred to as capitalism. Fuchs claims that, "[f]or Marx, capitalism is based on the permanent theft of unpaid labor from workers by capitalists" (184). Some economists refer to this type of economic form of production as *Fordism*. The late twentieth century witnessed a shift from this economy which was, as noted by Hardt and Negri,

> characterized by the stable long-term employment typical of factory workers to one marked by flexible, mobile, and precarious labor relations: *flexible* because workers have to adapt to different tasks, *mobile* because workers have to move more frequently between jobs, and *precarious* because no contracts guarantee stable, long-term employment. (112)

Authors elaborate on these new economic relations in which labor value of the worker is extracted in late capitalism, and which are characterized by the absence of factories and the intrusion of new information and communication technologies.

The new technologies of the late twentieth century help capitalists exploit the workers/individuals using these new realms of employment, increasingly focusing on people's online activities as sources of profit. In other words, the factory has migrated online. However, the problem is that these activities no longer provide factory-like conditions such as

a clear division between work and leisure time, and fixed time and place of employment. The labor performed by these online activities some authors term immaterial or knowledge labor, the issue of which will be further explored in later chapters.

In addition, the concept of immaterial labor can only survive in an economy heavily dependent upon immaterial working conditions[2], such as the one provided by the Internet. Some authors, such as Harvey, term the period *neoliberalism,* which can be interpreted as "a potential antidote to threats to the capitalist social order and as a solution to capitalism's ills" (Harvey 19). These ills refer to the unemployment and inflation that started to plague the US economy in late 1960s. The central tenet of neoliberal doctrine is "[t]he assumption that individual freedoms are guaranteed by freedom of the market and of trade" (Harvey 7).

In such an economic context, the US government was no longer the main sponsor of Web development; rather, the role was predominantly taken on by private investors. This overall atmosphere in the US was more than welcoming of the individual entrepreneur willing to invest in the new economy, as seen in the words of Reagan: "We have lived through the age of big industry and the age of the giant corporation. But I believe that this is the age of the entrepreneur" (qtd. in Streeter 69). These words resonate with "the governing ideas of American society in the early 1980s, when a radical belief in markets and an accompanying suspicion of all forms of government regulation (…) would become common sense among many in positions of power" (Streeter 70). Therefore, cyberspace and the Web seemed to have epitomized the dominant ideology of Western thought at the time, with its headquarters in the US. In the words of Manjikian,

[2] The virtual world of the Internet and of immaterial labor are only virtual and immaterial on the surface. Physical infrastructure is still needed for the system to work. Not only is the physical element such as cables and optic fibers necessary for the individuals to become connected online, the physical human labor is required as well. As elaborated by Downey, "[t]he new virtual economy cannot escape a very old physical fact: it takes human labor to make the Web work" (210). He continues by saying that "electronic spaces depend on underground fiber optic cables, rooftop microwave transceivers, and suburban offices where network administrators keep backup power supplies on call" (218).

> cyberspace was (…) a field for the overlay of traditional power structures into this new surface. (…) [W]hile cyberspace might be without a nationality or a gender, it was not without and economic ideology. Cyberspace was capitalist, not socialist, not based on barter or some other system – and, by extension, it may be argued, cyberspace also was construed of as 'western,' perhaps even American. (385)

Put differently, at the time the US was the most developed capitalist system in the world. The Internet was created in the US. Manjikian draws a logical conclusion when she claims that cyberspace and the Internet almost seem to have lost all other options other than becoming capitalist as well (385). Therefore, cyberspace is the logical extension of the structures set in place long ago.

The Internet development was accompanied by early users' ideological visions of what changes the Internet might bring to the individuals, mostly in terms of freedom and liberation of the individuals from capitalist and power structures, but also in terms of cultural issues such as social equality and democracy. These utopian ideas of the potentials of the Internet are in contradiction with the actuality of the Web experience, especially if viewed in the light of capitalist exploitation of the collective activities of Internet users. The following chapters explore the clash of utopia and reality on the Web.

3. Implications of the Internet Development

The early computers were massive and took up a significant amount of space, and as such were only used by large military complexes and universities. The development of the Internet allowed for computers to be viewed as means of communication, rather than just tools for controlling military operations or conducting scientific research. As Streeter states, "[b]y the late 1970s, among computing professionals, the idea of using computers for communication between people was no longer abstract; it increasingly had an experiential grounding" (96). In 1972, the *Rolling Stone* magazine published an article which celebrated the arrival of a computer that could be used by individuals for their individual purposes. Streets notes that it "presented computers, not just as liberating, but as fun, and perhaps liberating *because* they were fun" (44).

The article presented computers as a means of liberation for the individual. It easily found loyal followers in the American readership, historically bred into the concept of strong individualism and self-sufficiency. Streeter places this concept within the tradition of romantic individualism. That is, "[b]y offering a romantic framing of computer use – computer use could be articulated as playful, expressive, even rebellious – the activity of computer use and design no longer need be instrumentally tied to a specific end; the means could be an end in itself" (68). From the moment computers were envisioned as an alternative way of communication and connection with other individuals, they were perceived as a new form of organizing rebellious ideas, which allowed individuals to insert themselves in an alternate universe far away from the monotony of their everyday existence.

This idea is especially emblematic of what Gibson describes in his novel, *Neuromancer.* Streeter argues that "*Neuromancer* provided a story line that redefined the act

of sitting at a keyboard entering commands from one of white-collar drudgery into an act of exploration and adventure" (123). *A Magna Carta for the Knowledge Age*, published in 1994, further resonates with this idea of the Internet and cyberspace being a new form of frontier to be conquered, in which new exciting adventures are possible: "America, after all, remains a land of individual freedom, and this freedom clearly extends to cyberspace. How else to explain the uniquely American phenomenon of the hacker, who ignored every social pressure and violated every rule to develop a set of skills through an early and intense exposure to low-cost, ubiquitous computing".

Furthermore, Internet utopians as well as Internet pragmatics, referred to as such by Manjikian, see the liberating and democratizing potential of the Internet (383). To utopians, the virtual world of the Internet has a democratizing potential to the extent that it "subvert[s] existing power structures," (387) and "[w]hile the real world is gendered, hierarchical and ruled by power, the virtual world is nonhierarchical and liberating due to an absence of tiered citizenship" (392).

These instances reflect the utopian strand of prospective heights society can ascend to, if it had just a little help from the Internet and possibilities it can offer in terms of a better functioning and more democratizing society. These ideas reflect only one side of the story of the potentials of the Web. The actuality of the Web experience shows that these potentials have not yet been realized, since the virtual community does not provide liberation or freedom for the individual, as seen in problem of Internet centralization by capitalist forces.

From the very onset of the World Wide Web era, the guiding principle of its creator, Tim Berners-Lee, has been that "[t]he system had to have one fundamental property: It had to be completely decentralized" (*Weaving the Web* 16). Decentralization, according to Benkler, "describes conditions under which the actions of many agents cohere and are effective despite

the fact that they do not rely on reducing the number of people whose will counts to direct effective action" (62). Centralization, on the other hand, refers to the process of making

> the behavior of many individual agents cohere into an effective pattern or achieve an effective result. Its primary attribute is the separation of the locus of opportunities for action from the authority to choose the action that the agent will undertake. Government authorities, firm managers, teachers in a classroom, all occupy a context in which potentially many individual wills could lead to action, and reduce the number of people whose will is permitted to affect the actual behavior patterns that the agents will adopt. (Benkler 62)

Following this line of thought, in its original design, the Web was supposed to provide an environment in which an individual is allowed to act according to their will, as opposed to a centralized system in which individual agents act according to the accepted behavioral patterns issued by the central authority. The centralization of the Web is closely linked to the capitalist market relations online. This threatens the decentralized nature of the Web, since Web users are somehow linked and traced by a certain social platform – most prominent example being Facebook.

The platform traces Internet users' browsing behavior – of both Facebook users and non-users alike. Gerlitz and Helomond point out that "[e]ven though Facebook cannot connect this data to individual profiles and directly use it for personally targeted advertising, it enriches the database and contributes to the process of pattern calculation. Therewith, potentially every web user becomes a Facebook user as their web behavior can now be traced across spaces" (20). Not only does every Web browsing individual become a Facebook user, the whole of the Web, as it seems, becomes linked to the platform.

The Internet users constitute the very essence of the Web; if that essence is somehow linked to one platform, then this can be seen as an instance of centralization of the Web at its most obvious. This demonstrates the conflict of the reality of the Web experience with early idealistic visions of the Web experience, in which an individual can seek refuge from everyday drudgery and market forces larger than them, and be liberated from the constraints of late capitalism.

Moreover, different constraints are placed on the users' freedom when considering the technical aspects of developing and making the online content available to the users. Berners-Lee claims that IT layers[3] that must remain separate in order for the Web to keep being upgraded: "The trouble begins when a program that an individual depends on for his use of the Web, such as an operating system or browser, displays an array of icons that will automatically connect him to preferred search engines, Web sites, online programs, or ISPs" (*Weaving the Web* 131). The kind of trouble Berners-Lee speaks of can be seen, for example, in standard PCs. Today, when we buy a PC, it most often comes with an operating system already installed on it. This should not happen. According to Berners-Lee:

> [k]eeping the medium and the content separate is a good rule in most media. When I turn on the television, I don't expect it to deliberately jump to a particular channel, or to give a better picture when I choose a channel that has the 'right' commercials. I expect my television to be an impartial box. I also expect the same neutrality of software. (*Weaving the Web* 130)

[3] The four horizontal layers of the Web's infrastructure that Berners-Lee speaks of include, from bottom to top, "the transmission medium, the computer hardware, the software, and the content. The transmission medium connects the hardware on a person's desk, software runs Web access and Web sites, while the Web itself is only the information content that exists thanks to the other three layers. The independence of these layers is important. From the software engineering point of view, this is the basic principle of modularity. From the point of view of economics, it is the separation of horizontal competitive markets from anticompetitive vertical integration. From the information point of view, think of editorial independence, the neutrality of the medium" (*Weaving the Web* 130).

The blending of layers, as in the case of buying PCs with Microsoft's operating system already installed on them takes "the user into a controlled view of the world" (*Weaving the Web* 131). Berners-Lee speaks of four different layers of the Web's infrastructure. They include hardware, software, transmission medium, and content. If they are not separated, it puts restraints on our access to the Web and, consequently, the rest of the connected world:

> If a company claims to give access to the world of information, then presents a filtered view, the web loses its credibility. That is why hardware, software, and transmission companies must remain unbiased toward content. I would like to keep the conduit separate from the content. I would like there always to be a choice of the unbiased way, combined carefully with the freedom to make commercial partnerships. (*Weaving the Web* 132)

Other issues concerning the various problems the Internet can pose to its users is the problem of access. As elaborated by Berners-Lee,

> [t]he fundamental principle behind the web was that once someone somewhere made available a document, database, graphic, sound, video, or screen at some stage in an interactive dialogue, it should be accessible (…) by anyone, with any type of computer, in any country. And it should be possible to make a reference – a link – to that thing, so that others could find it. (*Weaving the Web* 37)

Even though both the Internet and the Web had started out on the same footing, "meant for universities, researches and larger organizations," (*Weaving the Web* 80) the Web soon became commercialized as well as personalized, and is today used by individuals across the

globe. However, *across the globe* would not be an accurate description since only 39%[4] of the world population has Internet access.

In addition, not all the information put online is accessible to everyone. According to Berners-Lee, the links to information "turn the Web's content into something of greater value; an interconnected information space" ("Long Live the Web" 82). The trouble arises when there is information that a person cannot link and therefore, have access to. For example, such information is located in Apple's iTunes program. No links can be made to iTunes, which places it outside the Web. Berners-Lee refers to such sites as "walled gardens" which, "no matter how pleasing, can never compete in diversity, richness and innovation with the mad, throbbing Web market outside their gates" ("Long Live the Web" 83). Even if the problem of discrimination on the grounds of accessibility of content is transcended, a slightly different issue of discrimination arises – that of social equality.

The idea of equality online in terms of gender, race, class, ethnicity etc. is best summed by Berners-Lee in the following manner:

> While there is great excitement because these new social systems are essentially independent of geography, race and religion, they will of course isolate those in developing countries who cannot afford or have no option to access the Internet. At once the great equalizer and the great divider, the Web highlights – as do clean water and health care – the necessity of those better off to care for but not simply control those less advantaged. (*Weaving the Web* 174-175)

Issues of access and a lack of equality online show, again, the clash of utopian ideas and attempts at their execution in reality. Warnick conducted a thorough analysis of the types of texts and articles published in a rather influential online magazine, *Wired*, and came to a

[4]In 2014, according to Internet World Stats: http://www.internetworldstats.com/stats.htm

conclusion that the Internet population it appeals to is “overwhelmingly White, male, affluent, and technosavvy” (21), and that, as such, its “potential for functioning as a public forum for discussion of major technology issues may be impeded by content that favors certain social groups and excludes other groups who might be interested in technological issues and policy” (22). This is an example of how the Internet can be discriminative towards its users in terms of what it has to offer to them. That is, websites tailor their content to cater to the fields of interests of only certain select groups, resulting in only those groups and those interests to flock to those same sites while at the same time discouraging other groups in participating and commenting on the sites.

On the other hand, the virtual culture is an extension of the physical one. What follows is that racial, gender, ethical and age discrimination are present online. Kollock and Smith assert that “[a]n early promise of online interaction was that it would render irrelevant such markers as race, gender, status, and age. Because online interaction strips away physical markers, the assumption was that the social categories assumed to rest on physical characteristics would wither away” (10). The fact that the traditional social and cultural hierarchies do not wither away can be exemplified by various online discussion forums. Kollock and Smith argue that “[t]he content of the post contains its own set of signals about the identity of the author. The writing style, the facts that are brought forth, the proper use of abbreviations and argot that are specific to the group, all help establish or challenge the user’s identity” (9). More specifically, authors stipulate that racial identity can be inferred from the cues a person dispenses when discussing racial issues online, rather than their physical appearance (10).

It is clear from these illustrations that the virtual experience has not done away with the same political and social issues that troubled the non-virtual society before the age of Internet, since, ultimately, the non-virtual, real-life community is the essential condition for

building a virtual one. It is no revelation then that the mindsets and worldviews individuals possessed in non-virtual communities eventually found their way online. This is further elucidated by Jenkins who says that people "are choosing to live in red states and blue states, just as they are choosing to participate in red and blue communities as they move online" (249).

Finally, in the same way the content online can be socially discriminative, the access to the Internet is discriminative towards people in under-developed and developing countries, as already mentioned, with just over one third of the world population having it. These realities of the Web experience show various utopian ideas as turning into something different from what they originally represented.

Moreover, the concept of individual freedom is not entirely sustainable in an environment in which actions of the individual are exploited by capitalist entities. An individual, therefore, cannot disappear into the realm of virtual communities if they eventually get colonized by late capitalist forces seeking to make profit from the said individual.

Virtual communities have become indispensable elements of late capitalist profit making, much in the same way capitalism has helped and has become a crucial element in virtual communities building. As stressed by Berners-Lee on numerous occasions, capitalist money was necessary for building the Web. Online companies such as Facebook created the site; however, it is being kept alive by its community of millions of users. As Terranova claims, the Internet is "a mutation that is totally immanent to late capitalism, not so much a break as an intensification, and therefore a mutation, of a widespread cultural and economic logic" (54). The most prominent example of how the Internet is "immanent to late capitalism" can be seen in the Internet users' activity best described as collaboration.

4. Collaborating Online

Along with the personalized use of the Web, other forms of activity among its users – such as collaboration and collective work – were bound to arise as the next logical step. Kelty and others define collaboration as a consequence of coordination that takes place in a "media-specific" place, such as the Web. Coordination allows "a group of people to work together on similar topics, in the same places (…) Collaboration is the conceptual and theoretical work that results" (187).

Collaboration on the Internet does not end in its theoretical forms; it can be observed in, as stated by Hesmondhalgh, "[p]henomena such as Wikipedia and open source software [which] are, without doubt, fascinating examples of cultural activity that attempt to base themselves on the pleasures and rewards of co-operation rather than competition" (268). These examples could be said to represent Berners-Lee's vision when creating the Web: "the driving force I had in mind was communication through shared knowledge, and the driving 'market' for it was collaboration among people at work and at home" (*Weaving the Web* 162).

Over time, the competition on the Web started to take precedence over collaboration; i.e. cultural activities that created sites such as Wikipedia are today being perceived as cultural "labor." The value of Web users' cultural labor is defined in terms of its affective reward, which is defined by Terranova as "exchange for the pleasures of communication and exchange" (48). Ideas and the practice of both cultural labor and affective reward can thrive in

economic conditions provided by the late capitalist economy. Terranova calls this late capitalist economy the *digital economy*, which

> is an important area of experimentation with value and free cultural/affective labor. It is about specific forms of production (Web design, multimedia production, digital services, and so on), but also about forms of labor we do not immediately recognize as such: chat, real-life stories, mailing lists, amateur newsletters, and so on. (38)

Therefore, the Web, which, in the words of Berners-Lee, had started off "as a publication medium but less of a collaboration medium" (*Weaving the Web* 57), soon became a collaboration medium in which applications such as open-source software could be developed through participation and contributions by millions of Web users. From then onward, the Web has become a production medium in which the same collaborative forces and exchanges are being appropriated by online companies seeking to extract profit from them. Terranova explains that "[i]n this sense, it is technically impossible to separate neatly the digital economy of the Net from the larger network economy of late capitalism" (51).

Collaboration online would not have been possible had it not been for the whole collective of the Web working together and, among other things, creating software or sites such as Project Gutenberg – an example of peer production[5]. Collaboration, according to Lévy, is "[t]he synergy of skills, resources, and projects, the constitution and dynamic maintenance of shared memories, the activation of flexible and nonhierarchical modes of cooperation, the coordinated distribution of decision centers" (10). Lévy claims that "[i]f the growth of the automobile, which characterizes the twentieth century, corresponds primarily to

[5] More specifically, Benkler refers to "commons-based peer production." "Commons" is the key word here – it refers to giving rights to access and use of resources within the production process, i.e. as opposed to property, within commons "no single person has exclusive control over the use and disposition of any particular resource" (61). Peer production is a new form of production, characterized by being "radically decentralized, collaborative and nonproprietary; based on sharing resources and outputs among widely distributed, loosely connected individuals who cooperate with each other without relying on either market signals or managerial commands" (Benkler 60). Project Gutenberg is an example of peer production: the project is viable because of the volunteers who scan books so that they can be accessible in digital form.

a desire for individual power, the growth of cyberspace corresponds to a desire for reciprocal communication and collective intelligence" (104). This is exactly what Berners-Lee had in mind while working at CERN:

> It was clear to me that there was a need for something like Enquire[6] at CERN. In addition to keeping track of relationships between all the people, experiments and machines, I wanted to access different kinds of information (…) Furthermore, I found myself answering the same questions asked frequently of me by different people. It would be so much easier if everyone could just read my database. (*Weaving the Web* 15)

In the meantime, just like the rest of the Web experience, the collectivity and collective intelligence have begun to be exploited by capitalist interests. Jenkins even goes as far as referring to collective intelligence as consumption: "None of us know everything; each of us knows something; and we can put the pieces together if we pool our resources and combine our skills. Collective intelligence can be seen as an alternative source of media power" (4).

In sum, what started as "individuality," i.e. one person creating weblike programs to help himself make sense of information and people around him, first blossomed into a collective, haphazard, non-regulated organization of individuals sharing common ideas, and has since then been turned into a pool of resources from which capital interests pluck out what generates most profit for them. Repeatedly, the Web is proving to be yet another channel of late capitalist forces' pursuit of revenue. How that revenue is collected is the question of the type of labor producing it in the new economic system; i.e., it is the immaterial labor that allows capitalism, in its neoliberal form, to flow to the virtual world.

[6] Enquire was Berners-Lee's first "weblike program." He wrote it "to help [him] remember the connections among the various people, computers, and projects at [CERN]" (*Weaving the Web* 4).

4.1. Immaterial Labor

Hardt and Negri claim that, approaching the end of the twentieth century, “industrial labor lost its hegemony and in its stead emerged 'immaterial labor,' that is, labor that creates immaterial products, such as knowledge, information, communication, a relationship, or an emotional response” (108). Lazzarato defines two aspects of it, the first being “the labor that produces the informational and cultural content of the commodity,” and the other pertaining to “the kinds of activities involved in defining and fixing cultural and artistic standards, fashions, tastes, consumer norms” (133).

Different critics, such as Hardt and Negri lump these two aspects into one, defining immaterial labor as the kind of labor that “produces ideas, symbols, codes, texts, linguistic figures, images and other such products,” whilst recognizing its other aspect, which they name “affective labor,” as the one “that produces or manipulates affect such as a feeling of ease, well-being, satisfaction, excitement, or passion” (108).

In order to differentiate one form of immaterial labor from another, it is important to note the distinction between different products of that labor, i.e. between user-generated data and user-generated content. Andrejevic argues that in the process of registration on sites such as Facebook, YouTube, Instagram, Yahoo! etc., “user-generated data is exchanged for access” (418). Lilburn elaborates it by saying that since access, i.e. registration “is combined with the process of creating an initial profile, users may provide a great deal of personal information about themselves before recognizing the significance of their actions” (141). While user-generated content refers to videos uploaded on YouTube or photos posted on Facebook or

Instagram, user-generated data consists of posting links, tags, and clicking on social buttons such as *Like*, *Share* or *Pin*.

It is evident that Hardt and Negri's description of the first aspect of immaterial labor corresponds to the former, i.e. user-generated content, whereas their "affective labor" corresponds to the latter. This is noted by various critics such as Arvidsson and Colleoni who state that "people who 'create value' for Facebook and other social platforms do so voluntarily without any kind of compulsion whatsoever. Indeed, people feel more than compensated (…) by the use value and gratification they derive from these activities" (137).

Here, it is obvious how in creating both user-generated content and user-generated data, social networks' users participate in the capitalist exchange of value; that is, most simply put, the company makes use of the uploaded content by selling space to advertisers based on users' content; and users make use of other users' content by being able to *Like* or *Share* – in other words, create data.

The cultural element of virtual communities is being extracted for its value by online companies creating those same virtual communities. It is significant to note that the *cultural* would not exist without the effort put into those websites by the people using them; i.e., the very fabric of a given "virtual" company – which provides space for the interaction and creation of a community – would not be able to survive without its members creating the *cultural*, i.e. profit for the company. As Terranova points out, "[u]sers keep a site alive through their labor, the cumulative hours of accessing the site (thus generating advertising), writing messages, participating in conversations, and sometimes making the jump to collaborators" (49).

Social platforms epitomize the flow of capital in the late-capitalist post-Fordist new economy. In order to be able to perform such a role, its "laborers" must be turned from

passive spectators, which is characteristic of older media such as TV and radio, into active participants. The immaterial labor is the concept where such a transformation is made possible. Lazzarato clarifies this by stating the following:

> Immaterial labor finds itself at the crossroads (or rather, it is the interface) of a new relationship between production and consumption. (…) It gives form to and materializes needs, the imaginary, consumer tastes, and so forth, and these products in turn become powerful producers of needs, images and tastes. (138)

The uploaded users' content is, therefore, both produced by the platform's users and consumed by them. The users become the sole generators of profit for the company, and they themselves are seen as commodity, as noted by Fuchs:

> The users who google data, upload or watch videos on YouTube, (…) or accumulate friends with whom they exchange content or communicate online via social networking platforms like MySpace or Facebook constitute an audience commodity that is sold to advertisers. (191-192)

Moreover, without its commodity, i.e. its users, various social platforms would not be able to make profit and therefore even exist. If there are no members clicking on videos and links posted by other users, or those videos, photos and links being uploaded in the first place, social networking sites would lose their purpose. It is the users and their reception, i.e. consumption of the products that constitutes the fabric of the new capitalist system that is most visible in online virtual communities.

The production and consumption of the same product at the same time become inseparable one from another. Thus, it can be said that the prosumer, in the late capitalist flow of capital, is precisely that – caught in the never-ending flow between action and reaction,

production and consumption. Spaces where the labor of the prosumer is most visible are precisely the social networking sites, and virtual communities that populate them.

5. Virtual Communities

The idea of a prosumer is closely linked to the creation of virtual communities, one manifestation of them being social networking sites. In order to define *virtual community*, it needs to be determined what constitutes *virtual* and what constitutes *community*. *Virtual*, according to Sökefeld, "points to the irrelevancy of space. Virtual space is a realm in which physical space, both proximity and distance, is of no importance" (111). *Community,* on the other hand, is a much more complicated term. For example, Sökefeld reworks Anderson's argument that all communities are imaginary. Put differently, "many communities 'in real life' are constituted less by interaction than by imagination. We perceive and represent ourselves as belonging to many more communities than simply those based on interaction and face-to-face relationships" (Sökefeld 107). However, I would argue that interaction is the bedrock of virtual communities, with interaction understood here as the exchange of ideas, knowledge and interests among Internet users.

Moreover, Sökefeld continues, the institutions of a given community is what makes it not only a collection of individuals, but a collective narrative which recognizes its traditions as its base in which individual narratives and experiences can circulate and thus create a community (107). In order for a virtual community to be created, two elements are necessary – feeling/emotion and discussion/communication:

> Individuals can share emotions (or perceive themselves and others as sharing emotions) and participate in communication without necessarily being engaged in face-to-face relationships. Accordingly, a sense of belonging and the communication of ideas of what a given community is about become crucial. (Sökefeld 106-107)

These definitions cast a somewhat idyllic light on virtual communities as places where, among other things, certain political ideologies can take their roots, as in the words of Dadurka and Pigg who note that the social media might have "the potential to transform community and civic participation by redirecting the way individuals spend their leisure time" (12). However commendable this may sound, the more likely direction the social media – and consequently, virtual communities – will take is in that of capitalist ideologies and capitalist exploitation. Arvidsson argues that "the economic value is increasingly connected to the quality of social connections" (qtd. in Gerlitz and Helmond 20).

With these considerations in mind, what follows are the logical questions of how the system actually works and whether its most important elements, i.e. human factors are aware of it; and, ultimately, if so, why they agree to participate in it. The answer to all these questions is yes, the system does work because the Internet users are not necessarily being robbed of their pay for their content and data creation; rather, they are receiving their pay in the form of *affective reward*, or *affective gain*.

5.1. Affective Reward

One of the crucial elements of neoliberalism, according to Foucault, is the generalization of the economic form. As he states, "it involves extending the economic model of supply and demand and of investment-cost-profit so as to make it a model of social relations and of existence itself, a form of relationship of the individual to himself, time, those around him, the group, and the family" (242). In other words, the generalization of the economic model refers to it becoming a universal, all-encompassing model of not only making money on the market, but making all aspects of an individual's life susceptible to analysis in market terms. Moreover, the commercialization of the Web originated in the US,

just like the initial invention of the Internet did. Some authors, such as Foucault, argue that this may be due to the fact that neoliberal doctrine took the firmest roots precisely in the US, when compared to Europe:

> American neo-liberalism evidently appears much more radical or much more complete and exhaustive. (…) It involves generalizing it throughout the social body and including the whole of the social system not usually connected through or sanctioned by monetary exchanges. (Foucault 243)

Online communities are a sample of a larger social and cultural system not originally intended to be involved in monetary exchanges. However, they facilitate this process of exchange for both capitalist forces and individuals themselves, which is seen in the practice of companies making profit by selling advertising space based on individuals' activities on the companies' websites, and in the practice of individuals selling their online labor for affective reward.

Affective reward manifests itself in the form of users' elation brought about by the simple fact of being a part of an online community and sharing their ideas with like-minded individuals. It is evident here how, when personal and private elements of human existence – such as elation, fulfillment and gratification that come along with a sense of accomplishment – get displayed in virtual space, they become appropriated by the market as monetizable goods. They no longer stand outside of market relations – they have become a commodity to be sold. Petersen argues that in this period of late capitalism and its overreliance on information technologies, "commodities have just changed from material/immaterial artifacts to people and their data. Commodification of users and their content have proved itself as the answer to the problems that capitalism supposedly faced when online communication sparked off" ("Loser Generated Content").

However, this explanation of commodification of users' activities and affective reward rather simplifies the system of *exploitation.* Benkler acknowledges the difference between extrinsic and intrinsic motivation we are all guided by. The former is imposed on us from the outside, it is socially and culturally conditioned and, thus, beyond our control. The latter comes from within us and includes, among other things, personal satisfaction (94).

Due to the social conditioning of the Western civilization, what most often happens is that the extrinsic motivation suffocates the intrinsic one. In Western civilization, one is more motivated to work for money, i.e. to follow one's extrinsic motivation, as it will secure one's sustenance, as opposed to following intrinsic motivation which does not necessarily always provide the same monetary security for the individual. Benkler claims that "[i]ntuitively, this model relies on there being a culturally contingent notion of what one 'ought' to do if one is a well-adjusted human being and a member of a decent society" (94). From there, it becomes very easy to conclude that what virtual communities entail is necessarily an extrinsic motivation. That is not the case; what is more, Benkler argues, "[a]cross many different settings, researchers have found substantial evidence that, under some circumstances, adding money for an activity previously undertaken without price compensation reduces, rather than increases, the level of activity" (94).

Following this line of thought, it can be concluded that, while prosumers may be exploited and their activities used for profit making, they may be aware of it, but simply do not want to acknowledge it as such. Users ascribe comparatively more relevance to their activities if they view them only in the light of fulfillment of their intrinsic motivations and desires to be a part of a community. If this is the case, then entities such as owners of large social networking sites looking to make profit online have more motivation to hide their agendas from their communities. If they do so, the members feel more motivated to keep on

contributing their time and effort to a certain community, thus generating more profit to the owners.

However, not every activity we engage in online is necessarily viewed in terms of generating profit. There are aspects of online collaboration that entail working with others only for the purpose of making parts of the Web experience better functioning and more enjoyable for the rest of the Web community. It is referred to as the open source[7], or open software culture, and as such, it stands out as a part of the Web experience outside of the system of companies' collecting revenue online.

[7] According to Benkler, "[f]ree software, or open source, is an approach to software development that is based on shared effort on a nonproprietary model" (63). The story began in 1984 with Richard Stallamn, working at MIT. "He wanted a world in which software enabled people to use information freely, where no one would have to ask permission to change the software they use to fit their needs or to share it with a friend" (Benkler 64).

6. Open Source Movement

The open source culture, and many similar parts of the Web community, would not have been possible had it not been for the very significant aspect of the Web experience – that of its interactivity. When dealing with the virtual world or, according to authors such as Lévy – cyberspace, the concept of interactivity is of outmost importance. The interactivity allows cyberspace to be "the living, heterogeneous, untotalizable virtual world in which every human being can share," i.e. participate (Lévy 107). In other words, the virtual world is a place of contact where individuals across the globe can communicate and interact with one another. This is further elaborated by Lévy: "The persons who populate and enrich cyberspace are its principal source of wealth. Access to information is probably less important than the ability to communicate with experts, agents, the direct witnesses of subjects that interest us" (225).

Interactivity is what we understand under the term "collaboration," i.e. sharing and creating ideas through human interaction and communication. What constitutes interactivity is Berners-Lee's idea of being able "to create any kind of document, easily. We should be able not only to follow links, but to create them – between all sorts of media" (*Weaving the Web* 169).

Berners-Lee's ideas of intercreativity are seeing the light of day in examples such as open-source software where individuals with enough knowledge, expertise and will collaborate in order to create a better functioning software than the one offered to the Web initially. What is considered the beginning of the open source movement are the workings of a Finnish software engineer, Linus Torvalds, who created the kernel – the central component of the operating system. Torvalds decided to share the first implementations of the kernel –

called Linux, with others online, who then contributed to modifying it. The kernel was released under the GPL, or the General Public License.[8] By doing this, in the words of Benkler,

> Torvalds crystallized a model of production that was fundamentally different from those that preceded it. His model was based on voluntary contributions and ubiquitous, recursive sharing; on small incremental improvements to a project by widely dispersed people, some of whom contributed a lot, others a little. Based on our usual assumptions about volunteer projects and decentralized production processes that have no managers, this was a model that could not succeed. But it did. (65-66)

The system and the method took on and, as Benkler elaborates, is today used for creating "the basic tools of Internet connectivity – Web server, e-mail server, scripting" (66).

That said, it is important to note that the Web was created by a physicist at CERN, i.e. by an expert, and was initially used only by other experts at various universities, and the military. The plan for the Web was for it to be further developed by experts and laymen alike. However, the vision has not been completed since, as in the example of open-source software, written by IT experts and software engineers, the average netizen[9] does not yet write code for the betterment of their personal experience on the Web. However, it is necessary to acknowledge that the open source movement represents, as the following chapter specifies it, the blending of different elements of both culture and economy, which is of the outmost importance for the ultimate survival of the economic model the Web operates in.

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[8] GPL is, according to Benkler, a type of licensing that "requires anyone who modifies the software and distributes the modified version to license it under the same free terms as the original software (…) [It] prevent[s] anyone from exclusively appropriating the contributions or the joint product" (64).

[9] Licklider acknowledges netizens as "citizens of the Internet who assimilate community norms and behaviors and work to preserve its collective goods" (qtd. in Manjikian 392). Majnikian continues by saying that, while netizens preserve the rules of a given community, and thus refers to them as "good citizens," the Internet is also populated by "bad citizens," or trolls who, "in contrast to good cyberspace citizens, do not accept community norms and cannot be counted upon to play by the rules," and ultimately, they may even "destroy users' trust in the safety of an Internet community" (394).

6.1. Open Source Movement as the Guardian of Freedom

If the advent of personal computing celebrated the individual and placed more power in their hands – thus perpetuating the American myth of strong individualism and the self-sufficiency of the entrepreneur – the emergence of open software and open source activities were seen as the exact opposite of the idea of an isolated individual as a prerequisite for the attainment of the American dream. The neoliberal doctrine placed all its faith in the market and its self-regulating mechanisms. The establishment of open source culture countered this neoliberal philosophy. As Streeter explains it, the community of computer networkers was

> inventing the very nonmarket tradition of open software production via 'rough consensus and working code,' a tradition that would lead to the surprising rise of the internet in the early 1990s and later in the decade become the core of one of the major countervailing forces against neoliberalism's simplistic market vision. (72)

Some authors, such as Streeter, argue that in the late 1990s, a certain shift in market philosophy took place. The ultimate bastion of individual freedom – the market – could no longer guarantee that it would protect that freedom. Therefore, the individuals turned toward cooperation. Streeter dubs the period of late 1990s the period of "the emergence of the problem of property on the internet":

> This was the period when Linux, the open source movement, and music downloading raised both excitement and consternation in many legal and management circles. By pitting free communication against property rights, these developments called into question the premises of the market fundamentalism that had been driving most political economic thinking associated with the internet to that point. All of a sudden,

> freedom and the market were no longer synonymous and, in fact, seemed like they might, in some cases, be opposed. (139)

Not only were the market and freedom opposed, they were in violation of one another. The market had tried to limit individual freedom with copyright laws; and the open software and free file sharing culture had tried to counter it by sharing and creating non-profit products which were under no regulation, and actually, flew in the face of copyright laws. As Benkler puts it, we usually think of these activities “as a 'problem.' This is because they were initially overwhelmingly used to perform an act that, by the analysis of almost any legal scholar, was copyright infringement. To a significant extent, they are still used in this form” (84).

Moreover, Richard Stallman, a computer programmer responsible for making the first steps into creating an open source community used, as Benkler asserts it, “the legal jujitsu (…) – asserting his own copyright claims, but only to force all downstream users who wanted to rely on his contributions to make their own contributions available to everyone else – came to be known as 'copyleft,' an ironic twist on copyright” (65). As shown, the Internet community had, in the short period of basically less than one decade, turned from self-reliance and isolation of its users into a community in its purest form; that is, an assembly of individuals tied to each other by mutual interests – those interest not necessarily being monetary. This points to another feature of open software culture – that of its most important part: the cultural element.

As Streeter elaborates this ascertainment,

> more than a few computer engineers know from personal experience that sometimes people will do things even if they could make more money from doing something else, and (…) a number of those inside the internet engineering community saw computer

> networking as a case in point. There are times when some of the best work is done, not to maximize profit, bout out of passion or commitment to something larger. (154)

"Something larger" that Streeter speaks of is precisely the Internet community working on open software and similar endeavors not for profit, but for their own and others' enjoyment of the Web experience. These instances of Web activities prove the extent to which the Web and the Internet rely on their cultural element, i.e. the people using them. Indeed, the cultural element itself was the most crucial part that, in reality, brought about the creation of the Web and everything that came along with it, including the most important part of the Web – the social networking sites.

As already described, the Net had initially been used only in military complexes and universities. However, in the 1960s, it started entering banks and corporate world. Large businesses discovered that computers, and the connection between them, could be used for easier data manipulation and, therefore, utilized them in their operations. From there, computers got smaller and more powerful and were introduced into individual homes of everyday citizens. However, before computers reached the heads of certain corporations, they were mostly used by those ranking below. In this way, the extensive use of the Internet advanced not top-down, but bottom-up. Streeter claims that

> [g]raduate students and assistant professors were online before university presidents and provosts. Middle management, technician, and engineers were online before vice presidents and CEOs. (…) This is a relatively unusual pattern of technological diffusion; networking entered social life through the same portal as the photocopy machine rather than through the top-down diffusion patterns of the telephone. (…) This pattern thus meant that the sense of something important happening in

> networking would hit the middle ranks of the knowledge class before it hit their superiors. (124)

It is clear that, essentially, the Net was viewed as an avenue of freedom from the rules imposed "from above." More importantly, the Web had a romantic ring to it, with the image of an individual as the forger of their own destiny, released from the constraints of larger culture. One of the first Web browsers, Netscape, according to Streeter, "gained so much attention because it followed a deliberate strategy of creating a media narrative heavily centered on a romanticized, heroic construction of the computer counterculture, which proved very popular with the media itself" (131).

This mindset was taken up by younger generations where the earliest generations of Internet enthusiast had left it off. As previously elaborated, the first Internet connectivity was established among various institutions simultaneously and independently of one another. This motto of a decentralized system was picked up later with further Internet and Web development. As Streeter points out, "a culture and shared awareness developed in the first decades of the internet's life that took into account the need for, and value of, an open, collaborative, nonhierarchical decision-making process" (100).

Accordingly, the Internet experience can be seen as a medium or a tool that helps improve the already established paths of human interaction. It can also be seen as a tool that started out as a decentralized element in people's lives, liberated from the law and order of traditional communication channels, which then became controlled and centralized. In the same way telephone, telegram and the post office services soon after their introduction to the larger society became, at first, controlled by the government, and then centralized and privatized. In addition, much like the older communication channels catered to the need of individuals at distant places to communicate faster and more efficiently, so did the Internet

start out to do the same; i.e. the Internet had the cultural and social contact as the prerequisite for its creation. As Berners-Lee points out,

> [t]he Web is more a social creation than a technical one. I designed it for a social effect – to help people work together – and not as a technical toy. The ultimate goal of the Web is to support and improve our weblike existence in the world. We clump into families, associations, and companies. We develop trust across the miles, and distrust around the corner. What we believe, endorse, agree with, and depend on is representable and, increasingly, represented on the Web. (*Weaving the Web* 123)

Plainly, it can be said that what happens on the Web is an extension of our real-life experience. This is only logical. People have created the Web and they are the ones who populate it, along with their set of beliefs, values and understandings of the world, as numerous instances of the Web experience elaborated in this thesis demonstrate.

7. Conclusion

At first glance, the situation seems rather easy to decipher. There is the real-life physical culture we all live in, and then there is the virtual online culture that a significant percent of the globe is also part of. This may have been the case several decades ago when the Internet was recognized as an alternative means of communication to telephone or telegram; however, today, the situation is different and much more complicated. Our physical and virtual lives have blended into one, courtesy of the Web development and the emergence of cyberspace. Though at first, technologically and in terms of accessibility, the network of networks that we refer to as the Internet was only available to a select few – only large organizations such as military complexes and universities could access it – both the Internet and the Web have spread across the globe and entered private homes. As such, they were seen as the perfect fertile ground where economic activities could take their roots.

The ramifications of such a condition are numerous, ranging from neoliberal forces entering personal lives and private homes, to democratizing society. The instances in which these possibilities are most visible are social networking sites which today may be said to epitomize the Web community and Web experience at large. The ways in which personal lives become commodified are most obvious on sites where individual Web users willingly trade bits of their personal lives for participation in online communities. Their activities, whichever form they take – be it in the form of liking a video, or making one themselves and posting it online – are instances of immaterial labor. In other words, both liking and posting a video count as instances from which private companies can make profit. In this thesis, I have

tried to explain in detail all the ways in which users' activities online can be extracted for profit, with or without the users' knowledge of it.

However, numerous instances of online activities presented in this thesis show that the Web experience is only exploitative to a certain extent and, more importantly, only if we place it within the late-capitalist economic paradigm. Online communities provide an avenue of change as well. Willingly being a part of an online community and engaging in online activities has a certain psychological effect on the individuals inasmuch as it allows them to get a sense of being a part of something, not only larger than themselves, but larger than the physical world surrounding them.

Online communities and social networking sites create opportunities for individuals to express themselves in ways not possible for them prior to the emergence of the sites. Some authors term this opportunity affective reward. It denotes elements of psychological reward individuals get when they feel they are a part of a community. This condition is what the larger economic systems have very successfully taken advantage of. As elaborated by Benkler,

> [f]or all of us, there comes a time on any given day, week, and month, every year and in different degrees over our lifetimes, when we choose to act in some way that is oriented toward fulfilling our social and psychological needs, not our market-exchangeable needs. It is that part of our lives and our motivational structure that social production taps, and on which it thrives. (98)

All the acts of human interaction online – taking into account the capitalist perspective – can be viewed in the light of immaterial labor and production, be it production of tastes, knowledge or videos through interaction, or production of affection and shared joy. Then again, even in the most "strict" capitalist societies, such as the US, there are and have always

been elements of the Web activity which cannot be incorporated within an economic logic. Examples of such parts of economy are voluntary work required in order to keep sites such as quora.com and Wikipedia running, as well as the open source culture. As Streeter points out,

> open source itself is hardly a threat to capitalism as a whole. Any thorough look at the history of capitalism shows that 'pure' markets have at best been temporary and fleeting events; capitalism has generally thrived only in the context of various extra-market political and institutional underpinnings, with some things treated as property amenable to exchange and other things not. All economies, it turns out, are mixed. (166)

This argument might best explain why the migration of capitalism online keeps on proving to be a successful endeavor. Just like at any other point in the history of capitalism, the 21st century, as the century of information technologies, is providing a terrain where exchanges in both monetary and non-monetary terms can be made.

Precisely due to the fact that not everything within the economy must abide by its strict rules of monetary exchange, the Web and the virtual communities also provide space for the attempts to create a better functioning and more liberal democratic society. The cyberspace offers a place of liberation for the individual and interaction with the rest of the networked globe. Various points of view from which these two significant instances of participating online can be seen – from extracting revenue to coloring it the hue of psychological affective reward – render cyberspace at first marketplace, and then battlespace where various large and small, corporal and individual forces play the game of who will exert more influence in the virtual world.

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