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Neal Stephenson's *Cryptonomicon*: Ethics, Individual and State Secrecy

Juan L. Pérez-de-Luque

Abstract
This article aims to explore the importance of secrecy, both state and individual, in Neal Stephenson's *Cryptonomicon*, a science fiction novel that narrates its events in two different timelines, one during World War II, the other presumably at the end of the 20th century. The two timelines in which the novel takes place present numerous state and individual secrets that give rise to readings about the need (or not) for a society of total transparency, as well as various ethical conflicts that may arise in the reader. These conflicts may arise from the audience's empathy towards certain characters and the unfolding of various secrets and plots involving these characters throughout the novel.

Key words
Individual secrecy; collective secrecy; ethics; Neal Stephenson; Cryptonomicon

1. Introduction: Secrecy and state[1]

This paper seeks to explore Neal Stephenson's novel *Cryptonomicon* (1999), and how it is connected to individual and collective secrecy from a political perspective. The critical reception of the novel is scarce, and there are few approaches to secrecy in the text from an academic point of view. Clayton (2002) pays attention to the connections between technology in literature, examining the novel from a historical perspective. Lewis (2003), expanding a metaphor used in the book, carries out an analysis of the novel in which he parallels the different races present in Tolkien's *The Lord of the Rings* with the characters in Stephenson's book, pursuing an interesting reading on race and technology. Leonard (2007) tangentially deals with secrets in his analysis on national identities through cryptology. Youngquist (2012) explores the novel from a semiotic perspective, providing interesting insight on the resemblances between the stories narrated during the WWII and the late 90s. A recent reflection on how *Cryptonomicon* puts forward ideas that can be applied in post-covid solidarity economy and post-capitalism has been proposed by Limas (2021).

Most of these texts mention secrecy in *Cryptonomicon*, but in an incidental way. Considering how important this trope is in the construction of the novel, it is

obvious that the critical reception has been aware of it, but after reviewing the academic literature on the subject, it stands out that no in-depth analysis of secrets and its relationship with politics has been put forward so far. The goal of this paper is to explore Stephenson's novel in search of the tensions created between secrecy held by the state and individual secrets, and to discuss how these secrets can be read from the perspective of contemporary secrecy studies. Likewise, I intend to approach the ethics of secrecy that underlie the novel, paying attention to how these secrets are shared with the audience[2], and how the representation of the characters may affect the ethical evaluations that the readership may make about the secrets that are handled in the novel.

In order to do so, it is useful first to look back at the recent history of secrecy studies. In the early 1980s, Bok considers that the impulse we have to keep individual secrets does not necessarily justify the existence of collective secrets. Similarly, although secrecy is not by definition positive or negative, collective secrecy has traditionally had a bad reputation, particularly that associated with the exercise of power. This is due, among other things, to the fact that when it is a collective secret, there is a more than evident risk that this secret will be used to increase the power of those who keep it, over the ignorant ones. On the other hand, collective secrets are very costly to maintain, and sometimes the methods to do so can be tough, involving coercion, censorship or threats (Bok 1982: 108). Bok clearly tips the balance on individual secrecy, which she considers valid and necessary to maintain personal autonomy. But as Robertson points out, Bok is much less forceful when it comes to political or institutional secrecy: "The balance of the argument is heavily biased towards the individual and away from the institutional or organisational needs for secrecy" (Robertson 1999: 11). For Bok, secrecy is potentially dangerous when used by those who wield power, because if there is no surveillance over them, those secrets will cause power to grow enormously (Bok 1982: 110–111).

In *The Transparency Society*, Han explores the drawbacks of a society that moves towards the removal of any kind of secrecy, at any level. According to him, the notion of transparency is now desired by many since transparency should equal democracy and trust. However, for Han, a society of transparency "is not a society of trust, but a society of control" (vii). Rousseau's society of total transparency, Han notes, is nothing but a society of control and surveillance (2015: 44). In terms of the individual, "every subject is also its own advertising object. Everything is measured by its exhibition value. The society of exhibition is a society of pornography" (2015: 11). The individual, therefore, is deprived of privacy,[3] and becomes a product exposed to the outside world, without any kind of barrier to protect their secrets.

Han acknowledges that politics "inhabits the realm of secrecy", since "only politics amounting to *theatocracy* can do without secrets" (2015: 6). Secrets as something that inhabits politics at its core is also highlighted by Horn, when she distinguishes between *secretum*, *arcanum* and *mysterium* (2011). For the present analysis, it is the category of *arcanum* that will be particularly useful in approaching the novel. It is described by Horn as a state secret fundamental to the security of the state itself, and which is hidden by means of techniques of silen-

ce and concealment (2011: 108). Following the line of thought that secrecy is not intrinsically positive or negative, but that in contemporary times all political secrecy has a halo of negativity, for Horn "the secrets of state are suspected to be the crimes of the state [...] and yet modern states [...] depend on espionage, secret operations, surveillance and the classification of information" (2011: 104). Similarly, Han believes that an excess of information and transparency does not necessarily equate to a higher rate of truth. In fact, "the more information is set free, the more difficult it proves to survey the world. Hyperinformation and hypercommunication bring no light into darkness" (2015: 41).

As far as political secrecy is concerned, even considering her reservations about this modality, Bok concedes that there are institutional secrets that are necessary, "government secrecy is at times not only legitimate but indispensable" (1982: 174). It seems clear, then, that political secrecy is a necessary evil for the survival of nations, and that total transparency is in direct conflict with this premise.

James Phelan's narratological studies will be key to understanding my approach to character development, and how these characters are evaluated in ethical terms by the reader. Thus, the concept of the mimetic component of the character is particularly relevant, according to which "the description creates its effect by playing off—and with—the way characters are images of possible people" (1989: 2). Phelan also speaks of the thematic component, according to which a character can be "taken as a representative figure, as standing for a class—the individual in modern society, men, the ordinary human, respectively—" (1989: 3). Similarly, the fact that we share the secrets of only a few characters in the story will significantly affect the way we perceive those characters. Even without the existence of a particularly overt subtext (Phelan 1996: 123), being confidants of the protagonists, and not of the antagonists, can tip the audience's ideological balance towards the former.

2. World War II, the *arcanum* and the soldiers

Cryptonomicon takes place during two timelines: The first one occurs during World War II, and the second plot takes place in an undefined contemporary era, possibly in the late 1990s. The events narrated during World War II revolve around the encryption of Allies messages and decoding of enemy messages by a secret unit of the British Army. The second plot follows a group of computer scientists, some of them descendants of the protagonists of the first story, who seek to create a data haven in an imaginary sultanate, Kinakuta. This haven should allow data to be stored beyond the reach of any government or institution, giving total privacy to its users. With this plot premise, one can intuit that the relevance of secrets and their conflict with the society of transparency have a very important weight in the novel. It is therefore convenient to make a detailed study of these secrets and how they are articulated in the text.

In the events set during World War II, Lawrence Pritchard Waterhouse is assigned to a secret Allied Army team, which has a dual role. On the one hand, to decipher Nazi messages encrypted by Enigma. On the other hand, to form a field

action battalion in charge of creating diversionary manoeuvres that hide from the German army the fact that the Allies are deciphering their messages and using them to anticipate the enemy's movements. Lawrence's first months of secret service are described as a routine of breaking codes -secrets- and adding information to the *Cryptonomicon*:

> The barriers placed in his path (working his way through the *Cryptonomicon*, breaking the Nipponese Air Force Meteorological Code, breaking the Coral naval attache machine cipher, breaking Unnamed Nipponese Army Water Transport Code 3A, breaking the Greater East Asia Ministry Code) present about as much resistance as successive decks of a worm-eaten wooden frigate. Within a couple of months he is actually writing *new* chapters of the *Cryptonomicon*. People speak of it as though it were a book, but it's not. It is basically a compilation of all of the papers and notes that have drifted up in a particular corner of Commander Schoen's office over the roughly two-year period that he's been situated at Station Hypo, as this place is called. It is everything that Commander Schoen knows about breaking codes, which amounts to everything that the United States of America knows. (Stephenson 1999: 71)

The fictional *Cryptonomicon* that gives the novel its name, is described as a compilation of notes, articles and analyses held by the secret British decoding unit and has been created by several generations of codebreakers. The existence of the *Cryptonomicon* and of the secret unit in which Lawrence works, entails the appearance of the *arcanum*. In the context of World War II, the connection between state survival and secrecy is obvious. For all governments involved to maintain secrecy during the war was a basic subsistence manoeuvre, as the very existence of the state was at risk due to the conflict. As Alan Turing puts it forward in the novel, the consequences of their failure as codebreakers would be that "Germans decrypt our secret messages, millions die, humanity is enslaved, world plunged into an eternal Dark Age" (Stephenson 1999: 846). In words of Bok, "The legitimacy of such secrecy in self-defence is clear-cut; and the weaker the state, the more indispensable its reliance on surprise and stratagems" (1982: 191). Added to this dilemma is the very idea of secrecy as a life-saving tool. This is implicitly stated in the novel itself, when Margaret's character reminds Lawrence that "You, on the other hand, have important work to do -work that might save the lives of hundreds of men on some Atlantic convoy!" (1999: 260). But at the same time, the Allies have to learn not to abuse the decrypted information, so as not to reveal to the Axis that they have broken the codes. This poses a moral dilemma as well for the characters in the novel, since they cannot destroy all the convoys, save all the lives or eliminate all the enemies they would like to. As Youngquist points out, "The value of decrypted information is negatively related to its deployment: use it and lose it" (1999: 337).

A society of total transparency comes into direct conflict with the existence of Lawrence's unit and the work it does. As is hinted at throughout the novel, the unfolding events that take place in much of the war are due to the interception

and decoding of secret messages by the two sides. The survival of the Allies and the Axis depends directly on their ability to keep hidden their tactical manoeuvres and, in general, the information that circulates among their commanders. Thus, most of the plotline which takes place in the World War II timeline, has the use of the arcanum as a backdrop. As Leonard sharply remarks, *Cryptonomicon* points out that the victory in the war was due more to the processes of encryption-decryption of information, than to the armed battles (1999: 72). Derrida will echo this head-on clash between the subsistence of the state by means of the arcanum and transparency, stating the following:

> Today we have a State just as 'liberal' and 'democratic', just as concerned over its responsibilities, as its citizens, but providing it can maintain its hold on the means of protecting internal security and national defence - that is, the possibility of bugging everything every time it deems it necessary - politically necessary - to do so (internal and external security). (1997: 144)

This state responsibility to subsist, even at the cost of keeping secrets, is embodied in the plot that revolves around the character of Goto Dengo and the construction of the Japanese bunker. The Japanese, foreseeing the defeat of the Axis and the subsequent threat to state sovereignty, decide to create a secret shelter in the Philippines in which to store all the state's gold, in order to maintain economic sovereignty in the long term. Goto Dengo is left in charge of the construction process, and he will discover that the final plans orchestrated by Japan are that all personnel involved in the project must die upon completion, either by assassination or by a final suicidal explosion that will seal the chamber, leaving the survivors inside. Such is the secrecy of the project that when Dengo arrives at the location, with the help of a local biker, the latter is killed by one of the lieutenants so that there are no civilian witnesses to what is being done at the site. And Dengo receives the following instructions: "Secrecy is of paramount importance. Your first and highest order is to preserve absolute secrecy at all costs" (1999: 588). Even Dengo will be confused as to what exactly he is building, as he will be told that it is a storage facility for vital materials (1999: 589), and he himself will begin to speculate that it may be a tomb for Emperor Hirohito (1999: 590).

Anticipating his end, Dengo manages to escape from his own self-sacrifice, turning this action into a personal conflict of honour, as he considers that he should have obeyed the orders given to him, even if he had to pay with his life for doing so. His thoughts are the following:

> I am a loathsome worm," he says, "a traitor, a filthy piece of dog shit, not worthy to clean out the latrines of true soldiers of Nippon. I am bereft -totally cut off from the nation I've betrayed. I am now part of a world of people who hate Nippon -and who therefore hate me- but at the same time I am hateful to my own kind. (1999: 734)

The strict code of honour to which Goto Dengo submits himself will torment him for the rest of the story, wanting to redeem himself by dying in battle or even

tormenting him with suicidal tendencies. In a quite comical sequence of events, he will end up converting to Christianity in the middle of the battlefield. Finally, thanks to Dengo's breaking the secret, he will be a key linking point between the two plots of the novel. In the story that takes place in the 1990s, he will have become an important and venerable technological magnate, who will back the protagonists in their search for Japanese gold, confirming the data they have managed to find, and giving them financial support.

Stephenson carries out, as will happen with the other timeline of the novel, an exercise in personalizing a secret, creating a trompe l'oeil in which a state secret is passed off as an individual secret. Dengo is the visible figure of a secret orchestrated by a state, Japan. Moreover, he will escape his own death, and this will condition his actions for the rest of his life. But it is important to note that Dengo is not the only survivor of the secret. The construction of the secret crypt is a plan drawn up by the government, so people who know the plan must survive, beyond those who work on site at the construction site. However, anyone in the upper echelons of government who may be behind the plan is hidden in the novel. Stephenson handles this arcanum as articulated by a depersonalized entity -the government of Japan- and personalizes in Dengo all the responsibility, consequences and ethical dilemmas that may arise from the situation. The reader, understandably, will feel a high degree of empathy for the character, who appears in the novel as the victim of both a larger conspiracy of which he is only an innocent pawn, and of a strict code of honour that governs all his actions. Considering that Dengo belongs to the Axis side, the novel must put a lot of effort into portraying him as a relatable character, so that the audience can sympathise with him. To do this, on the one hand, Stephenson makes us complicit in the secret he holds. On the other hand, this is coupled with a number of moral qualities that Dengo demonstrates throughout the book, particularly those of loyalty, humility and honour. As Rabinowitz explains, this falls within the metonymical rules of enchainment, by which it is "appropriate to assume that the presence of one moral quality is linked to the presence of another that lies more or less contiguous to it." (1987: 89)

Thus, we have a country that maintains an arcanum to preserve its economic sovereignty, even at the cost of eliminating all witnesses to that arcanum. But there is a survivor who, fifty years later, breaks the secret to prevent events like the ones he lived through from happening again, as Avi promises Dengo that the gold will be used for that purpose. Goto Dengo takes it upon himself to make amends for the damage his country carried out in the war, as well as his self-perceived lack of honour, by breaking the state secret. One individual accumulates enough power, thanks to having survived a secret and the truth it conceals, to try to alleviate future wars and holocausts.

A point is thus reached at which the ethics of state secrecy are called into question. We, as readers, can ask ourselves whether a state can keep a secret even at the cost of the lives of some of its citizens, as long as this secrecy entails the future subsistence of that state. Neal Stephenson puts forward the fragile balance between keeping a state secret by an individual or revealing it if this will prevent future wars and mass annihilations, whether or not of fellow citizens.

In that line of thought, Bok reflects on the transformative effects that military secrecy can have on individuals:

> To live with secrecy day in and day out, to be aware of a threat both to one's nation and to oneself from a diminution of secrecy, and to be trained to give up ordinary moral restraints in dealing with enemies is an experience that isolates and transforms the participants. (1982: 199)

In the case of Dengo, this is compounded by his strict Japanese code of honour. His betrayal of his country will lead him to an existential crisis and a process of transformation that includes a change of religion to assuage his guilt. The change of faith will allow Dengo to reveal the secrets he keeps to a priest, under the secrecy of confession, "a very, very long confession" (Stephenson 1999: 861). The act of many Christian confessions, says Bok,

> are meant to disclose [...] something intimate and central to one's life, such as religious or political deviation, or a dissolute or obsession-ridden life. They reveal a lack of harmony with accepted standards, and an effort to restore that harmony, often by making restitution or accepting penance or submitting to a ritual of purification (1982: 75).

This religious component of the sharing of secrecy allows Dengo to undergo the radical transformative process that those same secrets require to be purged. Finally, Stephenson will allow that character to completely redeem himself precisely by sharing the arcanum, fifty years later, so that events such as those that occurred during World War II will not be repeated.

Bok points out that, as has been mentioned on numerous occasions, sometimes in order to preserve national integrity, states must act "in ways that may well require setting aside moral standards" (1982: 193). However, she believes that "No nation can escape the burden of living with the results of clearly immoral or even questionable choices made in wartime" (1982: 193). Dengo seems to personify this whole process. He has witnessed the horrors of war, participated in military secrets that, to be kept, have provoked more horror, and finally broken those secrets to ease that burden that weighs not only on his shoulders, but on the history of an entire nation. The revelation of the location of the gold by the Japanese character paddles in the direction of transparency but seeking a clear global pacifist benefit. Leonard approaches Dengo's betrayal with a more pessimistic view, asserting that "the gold that is housed there fails to protect either Japan's economic interests or its narrative of national identity" (2007: 82). Be that as it may, these two opposing readings of the outcome of the character's actions are not mutually exclusive.

3. Data havens, corporate secrets, and capitalism

The plot concerning the events of the creation of the data shelter in the Sultanate of Kinakuta is also based on secrets that deserve to be studied in detail. The proposal of this second story moves away from the arcanum and focuses, on the contrary, on individual secrecy as a defence mechanism against the state. What Randy Lawrence Waterhouse (grandson of Lawrence Waterhouse, the codebreaker from the other timeline) and his business partner Avi Halaby try to build is what they call "The Crypt". To carry out this task, the two founded the company Epiphyte. For the sending of messages, information and e-mails used within the company, they use an encryption system called Ordo, which is apparently unbreakable. The reader, however, will have privileged access to all the secret information contained in these messages. In this way, Stephenson begins to forge the audience's sympathies with these characters, as he makes them participants in all the concerns and machinations that are going on in their heads. The importance of information and its encryption for both entrepreneurs, particularly for Randy, is made clear when it is stated that

> Epiphyte has no assets other than information – it is an idea, with some facts and data to bake it up. This makes it eminently stealable. So encryption is definitely a good idea. The question is: how much paranoia is really appropriate? [...] If you want your secrets to remain secret past the end of your life expectancy, then, in order to choose a key length, you have to be a futurist. You have to anticipate how much faster computers will get during this time. You must also be a student of politics. Because if the entire world were to become a police state obsessed with recovering old secrets, then vast resources might be thrown at the problem of factoring large composite numbers (1999: 53–55).

This passage raises full awareness of individual secrecy and the possibility of being exposed not only by robbers/hackers, but by the state itself. The fear of a police state that would monitor existing secrets is the ultimate expression of the control society state postulated by Han. However, despite the level of paranoia they display, the members of Epiphyte will be threatened not so much by governments as by other businesspeople and tycoons who seek to take advantage of them, sensing that the company has useful and important information (not only related to the data haven, but also to possible gold caches that may be found during the laying of submarine cables) that they will try to uncover at all costs. This is why secrecy in their operations must be maintained at all costs, as they run the risk that "if the Dentist finds out, then he and the Bolobolos will just split the entire thing up between them and we'll see nothing. There's even a chance we would end up dead" (1999: 137). However, at several points in the novel, the risk of government interference in the data haven is emphasized, especially when the project is brought to the public's attention through a magazine report. This can be seen, for instance, in Randy's email exchanges with a member of an association called Secret Admirers. Thus, this anonymous individual warns that "What if

the Philippine government shuts down your cable? Or if the good Sultan changes his mind, decides to nationalize your computers, read all the disks?" (1999: 243).

As a very small enterprise, Epiphyte is far from being portrayed by Stephenson as a huge, dehumanised corporation. The writer personalises all the moves the company makes to its partners, mainly Randy and Avi, who are the protagonists of the novel's contemporary plot. This produces in the reader an effect of empathy and closeness towards the entrepreneurs and, by extension, their business, which makes their actions be seen as tremendously personalised and individual. In this way, the secrets that Epiphyte handles are not received by the reader as the secrets of a large, depersonalised company, but as secrets that the individuals themselves have in order to stay afloat and carry out the plan to create "The Crypt". "The Dentist", the multi-millionaire investment fund manager, is a similar case. Although the reader is warned at all times of his character as a predatory businessman, and a potential threat to the interests of the protagonists, all his actions are equally presented in a very personalised way. In fact, this is the way this character is introduced in the novel:

> "Don't talk to the Dentist. Ever. Not about anything. Not even tech stuff. Any technical question he asks you is just a stalking horse for some business tactic that is as far beyond your comprehension as Gödel's Proof would be to Daffy Duck." [...] "Listen. The Dentist has at least a billion dollars of his own, and another ten billion under management—half the fucking orthodontists in Southern California retired at age forty because he dectupled their IRAs in the space of two or three years. You don't achieve those kinds of results by being a nice guy." (1999: 131)

In this way, Stephenson is also creating a link between the reader and the character, this time one of clear opposition, as all the corporate actions he takes are ultimately aimed at rivalling Epiphyte. One runs the risk during the reading of *Cryptonomicon* of forgetting that all that is narrated in this timeline are wars between companies (with greater or lesser power), as they seem much more personal rivalries. This personalisation in its members of the main companies operating in this plotline of *Cryptonomicon* provokes an effect of support/opposition in the reader that will, as will be seen later, have an effect on the ethical reading that can be made of the novel.

In addition to the personalisation of the entrepreneurs' businesses, it is worth examining how the thematic and mimetic components present in both The Dentist and the members of Epiphyte are articulated. With regard to mimetic components, there is a stark contrast between the first appearance of The Dentist and that of Randy and Avi, the two main protagonists and core members of Epiphyte. Both appear for the first time in *Cryptonomicon* having a conversation, while Randy is boarding a plane in Tokyo bound for Manila. From the very first moment, it appears that they are a well-matched pair. Randy does not take kindly to social conventions: "Randy is in Tokyo's airport, ambling down a concourse with a slowness that is infuriating to his fellow travelers." (1999: 23), Avi, for his part, tries to explain to Randy the ins and outs of the Asian societies in which his

partner will be immersed. At the end of this conversation, we also discover a key fact in the construction of Avi's character, which Randy directly reminds him of, and abruptly throws at the reader: "You want to work out of Intramuros because it was systematically annihilated, and because you're obsessed with the Holocaust" (1999: 25). The businessman's obsession with the Holocaust and trying to prevent it from happening again, as we will see below, is a powerful positive trait that plays a crucial role in our ethical assessment of the character and all his plans.

In addition, throughout the novel we learn that both Randy and Avi are tech geeks. Apart from that, Randy shares traits with his grandfather Lawrence that suggest they may both be on the autistic spectrum (something that connects them in the two timelines beyond family kinship). In a way, Avi acts as a mediator between society and Randy when it comes to conventions, protocols and so on. To use a popular culture television simile, the pairing of Randy and Avi may be reminiscent, to some extent, of the pairing that the characters of Sheldon Cooper and Leonard Hofstadter would later form in *The Big Bang Theory* TV series (Chuck Lorre). This brings us to Randy's thematic component. The existence of a character with socialisation problems has been a recurring trope in popular culture in recent decades. In addition to the aforementioned series, we can also add, for example, the television fictions *House M.D.* (David Shore), or Mark Haddon's 2003 novel *The Curious Incident of the Dog in the Night-Time*. In all of them we find individuals with a very high intellectual capacity, who jeopardise coexistence with the rest of the characters due to their inability to establish conventional social relations. And all these characters, Randy included, are endowed with a remarkable charisma and attraction with which the audience aligns itself[4].

Returning to the main secret that articulates this section of the novel, that of the Crypt, as has been mentioned above, it has the function of keeping the information it contains away from the interference and meddling of any government -and multinational corporation- in the world. A certain antagonistic parallelism can be created with the Golgotha constructed by Dengo, since while the latter would preserve the autonomy of a country, the Crypt would preserve the independence of individuals. In this way, *Cryptonomicon* confronts in its two narratives individual and state secrecy, raising questions about both. We find ourselves in a society that tends towards total transparency. But in addition, this quest for transparency merges with what Zuboff calls surveillance capitalism:

> Surveillance capitalism unilaterally claims human experience as free raw material for translation into behavioral data. Although some of these data are applied to product or service improvement, the rest are declared as a proprietary behavioral surplus, fed into advanced manufacturing processes known as "machine intelligence" and fabricated into prediction products that anticipate what you will do now, soon or later. Surveillance capitalism runs contrary to the early digital dream, consigning the Aware Home to ancient history. Instead, it strips away the illusion that the networked form has some kind of indigenous moral content, that being "connected" is somehow intrinsically pro-social, innately inclusive, or naturally

tending toward the democratization of knowledge. (2019: 8–9)

It seems, therefore, that The Crypt is an act of total resistance through secrecy, with which to confront both government surveillance and the commodification of our data by big corporations. Let us see, however, if this inference is so obvious or if there are more nuances to discuss.

Throughout the novel, there are hints of different uses that the Crypt could be put to when it becomes a reality. Among them is, for instance, the creation of a cryptocurrency[5] shelter. The plan to create this cryptocurrency involves using gold hidden in sunken submarines and in the Japanese Golgotha as a method of financial backing for the operation, thus giving security and economic reliability to the new cryptocurrency. This will cause, among other side effects, that governments will be "scared shitless about their ability to collect taxes when everyone is using systems like the Crypt" (Stephenson 1999: 726). Limas, avoiding these explicit side effects, puts forward that cryptocurrencies like the one presented in *Cryptonomicon* consider the social relationship as something taking place among equal people, not as an imposed economical act given by a particular authority (2021: 65). In addition to all this, the novel also mentions that many governments may have a special interest in controlling the flow of information. This is the case, according to Avi, of governments such as China, which could be interested in institutionalizing censorship (Stephenson 1999: 839). The attack on the Chinese government is evident in this discussion, in which it is stated that "they don't have any internal checks and balances in their government, so they are more prone to do something that is grossly irregular like this" (1999: 840).[6]

A second use for the Crypt is Avi's personal bet. As already anticipated, this character intends to prevent the repetition of holocausts such as the one that occurred during the Second World War. To this end, he proposes to include in the shelter what he calls HEAP (Holocaust Education and Avoidance Pod), a series of manuals that will serve not so much to educate potential genocidaires, but to provide tools to potential victims of the perpetrators, "a handbook on guerrilla warfare tactics" (1999: 401). This particular project, according to Avi, "is the highest and best purpose to which we could dedicate our lives" (1999: 401). The novel reflects at other moments the importance of avoiding new genocides and defeating any kind of Nazi movement. Thus, "Defeating the Nazis was in the same category as changing a flat tire: an untidy business that men were expected to know how to do. [...] Randy was expected to know about these things too" (1999: 642).

The Crypt, as an emblem of citizen and individual resistance to the economic and warlike tyranny of governments, thus encounters an important opposition that has been pointed out by Leonard (2007) and Youngquist (2012). One of the economic consequences that might be derived from the usage of the Crypt is that it might prevent governments from collecting taxes from their citizens. This liberal economic policy is masked behind the cryptocurrency, but is made explicit by Epiphyte's members, and makes individual secrecy seriously detrimental to the economic interests of any state and the general welfare of its citizens. The fact that the secrets the Crypt holds enable massive tax evasion poses in the reader an obvious moral blow to the idea of individual secrecy as a sign of resistance to

the state. If this secrecy implies the non-fulfilment of citizens' duties that have a direct impact on the social improvement of a country, this may lead to an economic collapse of countries that are unable to collect the necessary taxes. In words of Leonard,

> The Crypt and all that it involves (a transnational digital currency, unrestricted data storage and distribution, secure encryption) is, at the end of *Cryptonomicon*, set to reshape the distribution of political and economic power across the globe. But this archive (like others, Derrida might observe) is one that escapes the *archon's* control, since it is already operating in ways that work against national interests at the very moment that it promotes them. (2007: 84)

This is where Stephenson's presentation of the characters comes into play. As noted above, the reader can align themselves with the members of Epiphyte and their associates, as they align themselves with the "good guys". However, moral conflict may arise (or not) for the readers as they consider the consequences of the plans that this group wants to carry out. The fact that Epiphyte's members finally gain access to Japanese gold reserves is a triumph and a happy ending for this group, which will supposedly be able to carry out The Crypt's plan. The reader, at this point, may have a consistent moral dilemma as it may not agree with the implementation of the plan to create an information system independent of any governmental or corporate interference, which allows a very important piece of individual freedom in any democratic system, but at the same time may jeopardise this very system because of the possibilities of tax evasion. Youngquist goes a step further, pointing out that the whole subplot of the HEAP and the fight against possible future holocausts is nothing more than a whitewash of unstoppable capitalism at its peak, where "Wired to the heat pump of historical atrocity, global capitalism perpetuates moral authority" (2012: 342). Thus, even the HEAP idea resembles the clandestine training of freedom fighters launched by Reagan and Bush.

Finally, it is important to pay attention to one of the most interesting moments of the novel is the meeting that the businessmen have with the Sultan of Kinakuta. He clearly exposes how data traffic is always restricted by local governments, so government interference is one of the pillars that can weigh down Epiphyte's project. The other, according to the Sultan, is "the heterogeneous patchwork of laws, and indeed of legal systems, that address privacy, free speech, and telecoms policy" (Stephenson 1999: 318). Faced with these two seemingly insurmountable obstacles, the Sultan makes a Solomonic and authoritarian political decision that will open the doors of the data shelter in his sultanate:

> "Time to start over", he says "A very difficult thing to do in a large country, where laws are written by legislative bodies, interpreted by judges, bound by ancient precedents. But this is the Sultanate of Kinakuta, and I am the sultan and I say that the law here is to be very simple: total freedom of information. I hereby abdicate all government power over the flow of data

across and within my borders. Under no circumstances will any part of this government snoop on information flows, or use its power to in any way restrict such flows. That is the new law of Kinakuta. I invite you gentlemen to make the most of it." (1999: 318–319)

The political act that allows the existence of a haven for individual secrets protected from all the states of the world is produced by the fictitious sultan of an imaginary sultanate. All this framed in a novel with an important historical component (in which there are numerous characters and real events mixed with fictional action), and a quite realistic setting. Stephenson's ironic pessimism in the face of a possibility of something like this happening in real life is high. This, coupled with the fact that Epiphyte's members seem to fully embrace the possibility of their movements and information (including fiscal information) being kept from any government, seems to support the thesis that *Cryptonomicon* proposes a very liberal reading of the possibilities of individual secrecy as a tool of opposition to government control.

4. Conclusions

Neal Stephenson's novel presents two distinct timelines. In both cases, secrecy is central to the narrative and the construction of the characters. State secrets and individual secrets generate various tensions in which the society of transparency postulated by Han is called into question. In the World War II plot, the case for the need for an arcanum to preserve national sovereignty in the event of armed conflict is clear. However, in the contemporary timeline, Epiphyte's plan to build a data haven may give rise to a dilemma that pits the existence of the right to individual secrecy against citizens' duties to the state, such as paying taxes.

Stephenson makes the reader complicit in his characters' secrets in order to reinforce the audience's alignment with them. Likewise, the way in which these characters are portrayed, particularly in the case of the businessmen, generates a sense of individualisation that distances them from the company they represent and encourages the reader to take moral positions for or against each of the characters.

It is possible that Stephenson himself, who attributes the idea of The Crypt to the side with which the audience positions itself most, is making a very powerful neoliberalist proposal, which may lead a sector of readers who do not identify with this economic trend to consider a major moral dilemma, like the one identified by Phelan in Joseph Conrad's "The Secret Sharer" (1996: 119–131), in which the audience is caught between a rock and a hard place by the decisions made by the captain of the ship. However, while Conrad's ending is, in Phelan's words, "wonderfully efficient and – to the authorial audience, satisfying" (1996: 122), the ending of *Cryptonomicon*, with the triumph of Epiphyte finding the Japanese gold, is perhaps only satisfying for a section of readers, while those who do not agree with the neoliberal proposition have a much more pronounced sense of discomfort.

Notes

1   The research for this essay was funded by Research Project PID2019-104526GB-I00 "Democracy, secrecy and dissidence in contemporary literature in English," as well as the University of Córdoba Research Plan and the resources of Trinity College Library (Dublin).

2   Note that the term "audience" is used here and in the rest of the paper to refer to the flesh-and-blood or actual audience postulated by Phelan (following Rabinowitz), as distinguished from the authorial audience, narrative audience and ideal narrative audience. For more information, see Phelan (1994).

3   Note that Bok distinguishes between secrecy and privacy, considering that what is private does not necessarily have to be secret (10).

4   Although neither the work in question nor any of the others at any point state this, all these characters share traits that could be associated with autism spectrum disorder. It is beyond the scope of this paper to delve into the fictional representations of characters with ASD. However, there are numerous studies on the subject. See, for instance, Murray (2008), Belcher and Maich (2014), Moore (2019), or Dean and Nordahl-Hansen (2021).

5   Although the contemporary concept of cryptocurrency does not exist at the time *Cryptonomicon* is written, Stephenson clearly anticipates it in this plot. Bitcoin, the first cryptocurrency, will not be created by Satoshi Nakamoto until 2008.

6   The attack on the Chinese government administration and its lack of transparency opens a new front in the novel, in which at times the shadow of the Cold War seems to hover, as has been mentioned by Clayton (2002). Interestingly, this is the period that is left out of the narrative, as the two timelines occur before and after the Cold War. Nevertheless, it seems that the Chinese government positions itself as a new element in the strategic map, an enemy that replaces the extinct Soviet Union. China is portrayed as Bok's coercive governments that use secrecy to institute censorship, and that have no problems in the usage of unorthodox methods to keep those secrets safe.

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