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# **The Social Contract of Live Streaming**

## **A Case Study of Four Streams on Twitch.tv**

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## **Abstract**

This thesis asks how unique and different communities are formed and facilitated on the live-streaming platform Twitch.tv. Twitch was chosen for its relevance to gaming culture as well as its higher number of users comparatively to its contemporaries. This was done by applying the Social Contract Theory, a philosophy based on the individual's relationship with a governing state and why a person would choose to give up their freedom for safety. The philosophers Thomas Hobbes, John Locke and Jean Rousseau form the theoretical background, as well as influence the end results. The application of The Social Contract as an ideology by David Gauthier was also used as a tool to categorize and understand the complex relationships at play. For the study, a netnographical approach was chosen, where we as researchers took a passive, observatory role by viewing four different variety gaming communities on Twitch, those being the streams of users xQcOW, CohhCarnage, 39daph and Forsen. While doing so we did not engage in chat, nor did we let our participants know of their participation in the study. An ethical evaluation was made around this fact and it was deemed ethical through a netnographic framework, produced by Robert V Kozinets. We immersed ourselves in the listed streams for two hours each during the month of May, while taking notes of the different interactions between the streamer and their community. This was done to give us the necessary data to determine the stream's explicit and implicit rules and how they are enforced, so that in the end we could categorize each community's unique Social Contract. This method was deemed a success after an analysis of the recorded data made it possible for us to define the Social Contracts at play in each of the communities, by viewing them through the philosophers' different lenses as well as comparing them to one another. By doing so, it could be seen that all four of our streamers could be connected to Lockian theory, with their varying focus on cooperation and protection of property. Each community would also have differing relationships with their explicit and implicit rules, like CohhCarnage's Hobbesian perspective on authority being valued highly comparatively to Forsen's disregard for it. We believe that this method of research can be easily replicated by others, and that this research can support future endeavors in the fields of netnography, live-streaming communities and Social Contract Theory on Social Media platforms.

**Key words:** Gaming culture, Immersive data collection, Live-streaming, Netnography, Online chat rooms, Social Contract Theory, Twitch.tv

## Sammanfattning

Detta examensarbete ställer frågan om hur unika och olika samhällen kan bildas och främjas på live-streaming plattformen Twitch.tv. Twitch har valts för dess relevans för spelkulturen samt dess höga antal användare jämförelsevis med andra liknande plattformar. Detta görs genom att tillämpa Kontraktualism, en filosofi som bygger på individens förhållande till en styrande stat och varför en person skulle välja att ge upp sin frihet för säkerhet. Filosoferna Thomas Hobbes, John Locke och Jean Rousseau bildar vår teoretiska bakgrund samt påverkar vårt slutresultatet. Tillämpningen av Kontraktualism som ideologi av David Gauthier används även som ett verktyg för att kategorisera och förstå de komplexa relationerna som existerar inom varje gemenskap. För denna studie valdes en netnografisk metod, där vi som forskare tar en passiv, iakttagande roll genom att se fyra olika ”variety” spelgemenskaper på Twitch. Livestreamarna xQcOW, CohhCarnage, 39daph och Forsen blev valda för vår studie. Vi genomför detta via att vi inte deltar i livestreamens chatt, och vi låter inte heller våra deltagare känna till deras deltagande i studien. En etisk utvärdering gjordes kring detta faktum, och det ansågs etiskt enligt en netnografisk handlingsram av Robert V Kozinets. Vi engagerade oss i vår forskning genom att fördjupa oss i de listade livestreamarna under två timmar var i maj, samtidigt som vi antecknade om de olika interaktionerna mellan livestreamarna och deras gemenskaper. Detta gjordes för att ge oss den nödvändiga informationen för att bestämma livestreamens sagda samt utsagda regler och hur de tillämpas, så att vi i slutändan kunde kategorisera varje gemenskaps unika samhällskontrakt. Vår metod ansågs vara en succé efter att en analys av vår data gjorde det möjligt för oss att definiera samhällskontraktet som användes i var och en av gemenskaperna. Detta gjordes genom att se dem igenom filosofernas olika linser samt en jämförelse mellan var och en. Genom att göra detta kunde man se att alla våra fyra livestreamare kunde kopplas till Lockes teori, med ett varierande fokus på samarbete och skydd av egendom. Varje gemenskap hade även olika relationer med sina explicita och implicita regler, som CohhCarnages höga värdering av auktoritet i stil av Hobbes medans Forsen ignorerade Hobbes värdesättningar. Vi tror att denna forskningsmetod lätt kan kopieras av andra, och att vår forskning kan stödja framtida undersökningar inom områdena netnografi, live-streaming-gemenskaper och Kontraktualism på sociala medieplattformar.

**Nyckelord:** Fördjupande datainsamling, Kontraktualism, Live-streaming, Netnografi, Online chattrum, Tv-spels kultur, Twitch.tv

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## **Glossary**

### Browser extensions

Third party softwares that users can add to their browsers to enhance their Twitch viewing experience. These programs, such as BetterTTV, FrankerFaceZ, and 7TV can add an even greater amount of emotes to any given channel. They do this by replacing words with emoticons the same way Twitch does it, but with an even greater library of pictures and GIFs, free for any viewer to use. They can have channel specific variants, making them unique in each chat.

### Channel Point Predictions

Predictions in Twitch chat (aka channel point betting) is a system where communities can use channel points to bet on what is going to happen during a broadcast. The prediction presents two outcomes to the chat and people place their bets on whatever they think is more probable to happen. After the outcome is established, the winners are awarded with points, according to the stakes of the prediction.

### Channel Points

Channel points are points that users who are logged in can collect. The user collects points for each broadcast that they join. The points are collected by simply watching the stream. However, there are some alternative ways to accumulate additional points by, for example, subscribing to the channel or participating in Channel Point Predictions.

### Chat

The live chat that plays a main role in the communications between the viewers and the streamer. Any logged in user can utilize this function unless the stream specifies otherwise (follower/subscriber requirement). Chat can be seen as two different entities: A smaller, individual one where each user stands on their own, as well as a larger entity that encompasses all viewers. This can be seen as an individual's opinion versus the represented opinion of a society.

### Chat Bot

Chat bots are automated messages that appear in chat. The bots appear as users in chat and can sometimes moderate the chat. Also, sometimes the automated messages can be triggered by certain keywords typed in chat.

### Chatter

An active user participating in chat. Does not include non-active users known as "lurkers".

### Donations and Bits

A monetary donation made by viewers to the streamer. One of the benefits for such interactions is that users get to write an attached message to their donations which is to be read by a text to speech program. There can also exist a "leaderboard" of the stream's top donors displayed either on or below the stream. Donations are just a direct money transfer from viewer to streamer, while bits are Twitch's own currency that can be bought with money.

### Emote

The language of Twitch. When typed out, certain phrases will automatically be seen to viewers as emoticons displaying a variety of emotions, actions, and situations. For example, typing out the phrase LUL will show viewers a picture of a laughing man (John "TotalBiscuit" Bain). This can be used by viewers to quickly show their reactions in chat to both the

streamer, as well as other users. Emotes are widely used as the main form of communication from chat and they exist both officially (Twitch Global emotes, channel specific emotes) and through browser extensions (BetterTTV, FrankerFaceZ, 7TV).

### Following

A non-monetary support to the streamer. A viewer may become a follower so that they can be notified when the streamers go live as well as quickly being able to see them in their following tab on the Twitch interface. Followers are needed for the streamer to grow in popularity, as it unlocks the “affiliate” (unlocks subscription for the channel) function eventually.

### Moderator

Moderators are members of the community selected by the streamer who usually enforce the explicit and implicit rules of the stream, ban people who break the rules, and help the streamers with the technical parts of the broadcast.

### Spam

In Twitch chats spamming is observed as the repeated typing of emotes and/or phrases that can often originate from a concept related to the broadcast, but are not always directly related to the current happenings on stream. Spammers will type a phrase and/or emotes over and over again, either in one single message (depending on message line limitation from the channel’s moderation) or repeatedly in separate messages. Sometimes chatters will start a spam and other chatters will copy the message and repeat it with them, which can be similar to starting a chant in a real life scenario. However, sometimes the chant is unsuccessful, in which case the spam is often described as “one man spam”.

### Streamer

The stream’s broadcaster. An influencer displaying themselves to the world and getting a following from it. This can be done in a variety of ways, like display of skill, humor, perspective etc. Each streamer has their own selling points to attract and maintain their audience.

### Subscriptions

A paid donation towards the streamer with benefits given to the paying viewer. A subscription often unlocks special stream related benefits, such as channel specific emotes, a subscriber message relayed to the streamer (either via highlighted chat text or a text to speech program), chat badges to show of how long they have been subscribed for, access to subscriber only chat and access to the streams community Discord server. Subscriptions come in tiers with increasingly rarer rewards given per tier. Subscriptions can be gifted from one viewer to another, either specifically or randomly.

### TTS

Also known as Text to Speech, this is an automated voice that can be enabled through third-party websites by the streamer in order to read out donation, subscription, bits, and chat messages out loud.

### Variety

We define variety streamers as broadcasters who consistently play a variety of different games on their streams. Their communities' viewership and level of engagement does not change significantly based on the game played.

## 1 Introduction

The live-streaming service Twitch.tv has become a large part of the gaming community during the last eight years. As a service, Twitch provides a platform for influencers to stream themselves and build real-time communities around playing video games, whether that be for entertainment, skill oriented, or informational purposes. As a viewer, Twitch provides the consumer with both an easy means to watch live content of whichever game the viewer finds themselves interested in, but also as a social outlet through its active and unique communities. Watching content live instead of after production (YouTube videos after an editing process) is considered to be a more engaging form of entertainment and therefore, it has inspired a continued exploration of Twitch (Johnson & Woodcock, 2018).

Observing how these communities form and develop from their inception to their present state is fascinating. They demonstrate the emergence of modern societies with governments, leaders, judges, executioners, and populus. With us recognizing Twitch communities as online microstates we can view it through the philosophical lens of the Social Contract Theory.

Our aim as researchers is to gain a better understanding of how these communities' function and how they differentiate themselves from one another through multiple Social Contract Theory perspectives presented by different philosophers, with our research question being "How do different variety live streamers on Twitch.tv facilitate unique Social Contracts in their chats and communities?"

Why Twitch.tv instead of other popular contemporaries like YouTube Gaming and Facebook Gaming? Compared to the other two examples, Twitch has originated as a live-streaming platform, and is only that. YouTube and Facebook have originated and acted as other types of services before creating gaming centered live-streaming services. With YouTube and Facebook Gaming being tied to other communities under a shared name, a lot of their audiences enter their gaming platforms with a preconceived knowledge of how things should be. As these platforms are extensions of already existing ones, they cannot organically form in the same way a brand-new platform can. Twitch, however, while at first an extension of Justin.tv, has overshadowed its originator and grown on its own. There is no platform quite like Twitch. This can in turn alienate some audiences with its unwritten rules and heavily contrasting communities, while letting others truly find a space they can immerse themselves within.

With this, the problem that this research aims to tackle is seen, where every community on Twitch.tv has its own implicit and explicit rules that influence the way that the chat behaves and communicates with the streamer and within itself. This research investigates how an inexperienced viewer on Twitch.tv navigates and participates in communities, based on their specific viewer dynamics. This is why this research can be useful to members of the gaming community not familiar with Twitch but have interests in the platform. Moreover, it can bring a new perspective to the participants of the communities and validate their experiences.

To properly view and dissect these dynamics, however, this study needs a solid foundation, established in the Social Contract Theory. It is a philosophical theory that revolves around how man enters a contract with a state for mutual benefits, while robbing them of absolute freedom, or the "State of Nature". Many philosophers have tackled this idea and have brought their own thoughts and ideas to the table.

As early as ancient Greece one can find Socrates introducing the concepts in *Crito* (Friend, No date). While originating there, the philosophy first picks up steam with the philosopher Thomas Hobbes, who has defined almost all modern Social Contract Theory. Hobbes, together with other classics in the field, like John Locke, and Jean Rousseau, are presented in this research. More modern contemporaries like David Gauthier can also be found, as well as research from Joni Salminen, Nicholas Gach, and Valtteri Kaartemo, on how the Social Contract can be applied to online platforms.

This investigation was performed with netnographic methodology (ethnography online) by observing live streams in Twitch while they are running in real time. The analysis focused on how the streamer interacts with their chat, and how the chat interacts with itself and the broadcast. The chat could be seen as two entities. One as a single unified entity, and one as multiple anonymous individuals. Paid interactions, such as subscription messages, donations, and bits were not investigated in detail, because they present entirely different dynamics outside of the scope of this paper. However, they were included in the data because they are still examples of interactions between streamers and viewers.

This research was done through a lens of the Social Contract Theory where different communities are categorized into different philosophies. How Twitch's explicit rules (Terms of Service) and each communities' implicit rules are enforced and applied in each stream can lean more towards one variation of the theory than another. With this in mind, it was expected to find that different communities facilitate different implicit rules and apply the explicit written rules with different levels of strictness, and that enough of a difference between them would be observed in order to categorize them into different philosophical categories.

In this study four English speaking international streamers were investigated: xQcOW, CohhCarnage, 39daph and Forsen. These streamers were selected based on our previous experience with their streams and communities. They were chosen due to their observed high variety of differing games, as well as a surface level perception of unique, interesting and varying communities, inhabiting different traits that can be applied to the study. We believe that these streamers are unique from one another and offer different viewing experiences for their communities.

## **2 Background**

The theoretical findings in this study build a base for the research and give more context about the investigated platform. To fully understand this research one must understand what Twitch.tv is and its significance, where it came from, where it is, and how it has affected both the streaming landscape, as well as the gaming community as a whole.

### **2.1 Twitch**

Twitch.tv is a live-streaming website and service launched in 2011. On it, individuals can stream themselves doing a variety of everyday activities, such as playing video games, "just chatting", producing talk and game shows, and even bathing. The platform is, however, largely marketed towards and used primarily by video game players and viewers (Yaden, 2021). The main way to interact with streams and other users on the website is the chat. When

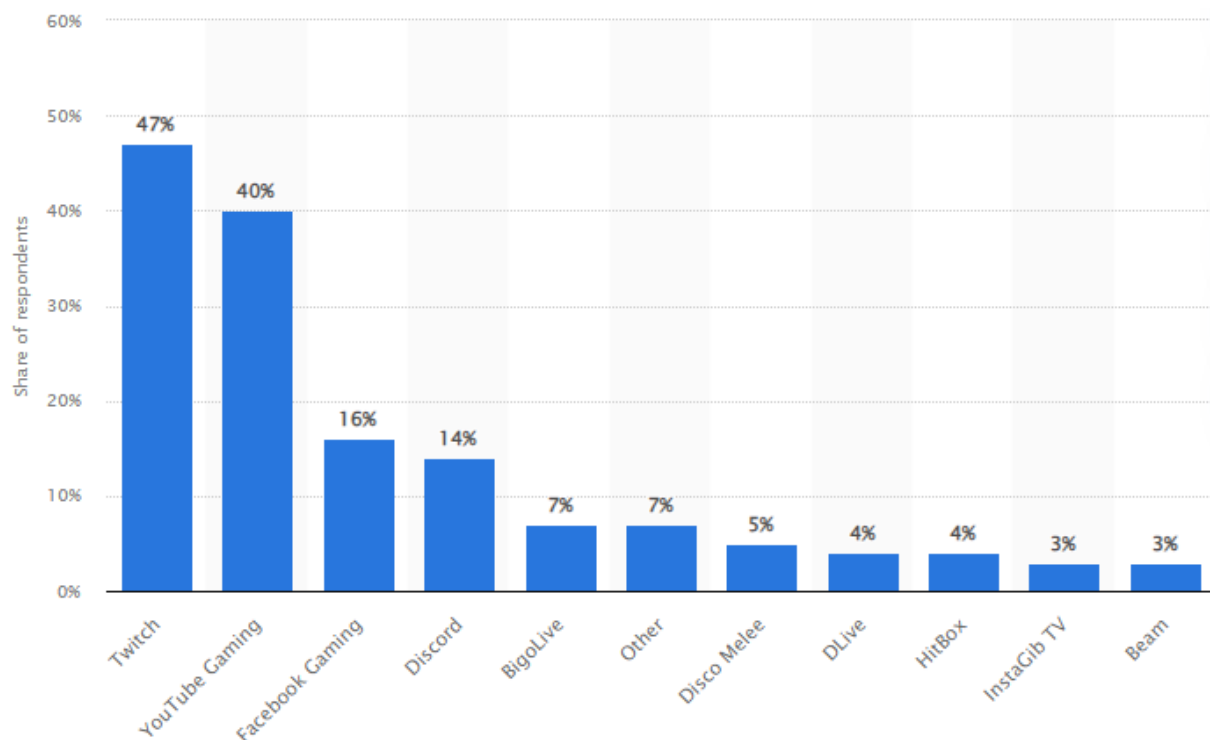
a broadcast is live, in order to use the chat, users sign into their accounts and type in the chat window found on the right hand of the stream page (Twitch, No date). There are also alternate paid ways to interact with the stream. For example, one can subscribe to the stream. Streamers who are affiliated or partnered with Twitch have a subscription button available on their page, right below the media player screen. As subscriptions are a feature that is paid monthly, the users go through a process of adding their payment method and choosing which type of subscription they want to purchase. Then, they have the option to add a custom message that appears in chat, as well as a custom badge next to their username (Twitch, No date).

Twitch.tv is a subsidiary of Justin.tv (2007-2014), a now outdated and closed live-streaming platform. Justin.tv was an all-purpose streaming website, with several categories that viewers could delve into. Its gaming category grew quickly however, and in 2011 the company Justin.tv, Inc spun off their gaming stream into its own domain known as Twitch.tv (Eswalt, 2013). The website came to be a success, so much so that it was sold to Amazon in 2014 for US\$970 million (Kim, 2014).

Today, Twitch.tv is the world's leading gaming related live-streaming service, with an average of 2.76 million concurrent viewers according to twitchtracker.com (TwitchTracker, 2022).

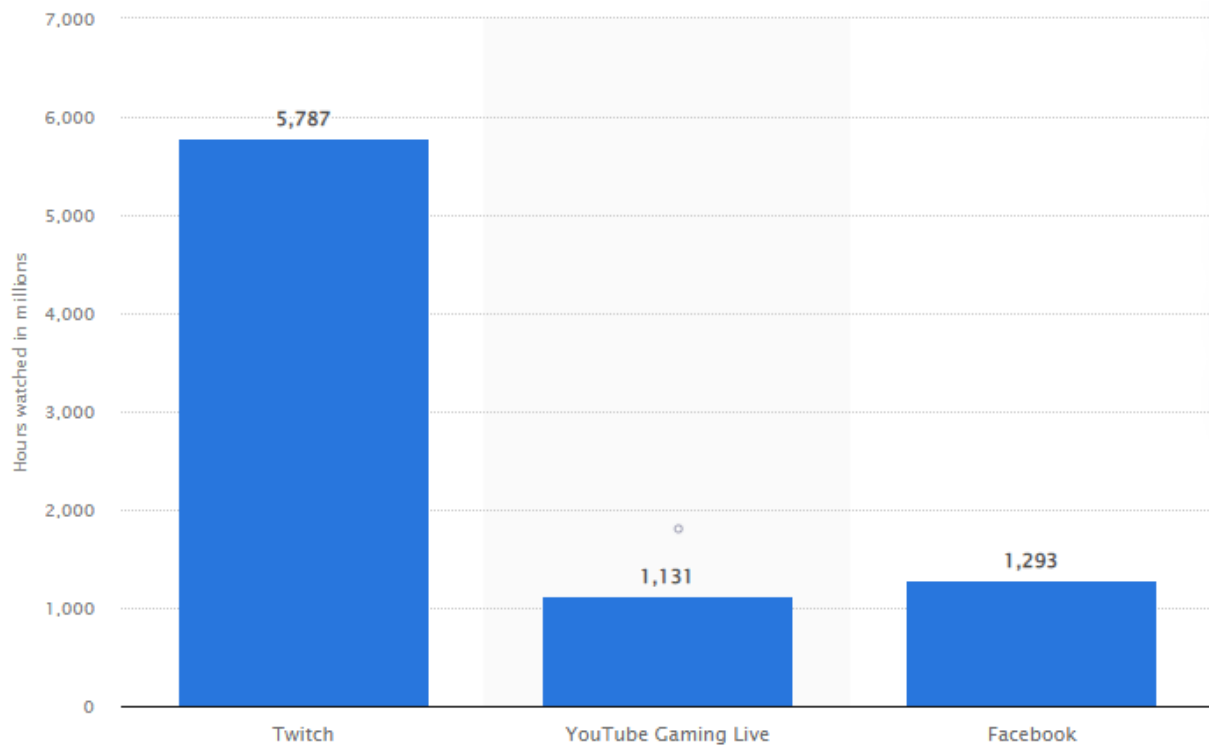
### 2.1.1 Other Live-streaming Platforms

There are multiple different web-based live-streaming services on the market today, with Twitch.tv, YouTube Gaming, and Facebook Gaming being the forerunners. Below a graph from Statista.com shows what their “gamer” users considered the most popular live-streaming platform (Clement, 2022):



**Fig 1. Chart presenting popularity of live-streaming platforms from Statista.com**

As can be seen, Twitch and YouTube are similar in popularity, right before Facebook and Discord (a server and community application). This data is being presented in comparison with the one below depicting number of hours watched on each of the three web-based live-streaming services (Clement, 2022):



**Fig 2. Statistics about hours watched on gaming live-stream platforms from Statista.com**

Here we can see a huge contrast between the popularity leaders Twitch.tv and YouTube Gaming, with Twitch.tv having just above five times as many millions of hours watched as YouTube Gaming. This data shows that even though the consensus on the two platforms is similar in popularity, Twitch.tv is the platform with more watched hours. With more concurrent viewers, larger and more varied communities can grow. This, together with the fact that Twitch.tv and Justin.tv are the forefathers of modern day gaming live-streams, gives a reason to choose the platform over any other.

### 2.1.2 Twitch's Impact on Gaming Culture

Today Twitch.tv is a staple of the gaming community, with millions of daily viewers watching games across thousands of emerging communities, centered around the streamers and their broadcasts. Twitch.tv has not only affected gamers, but also the games they interact with.

Games can become household names overnight when marketing is done naturally through the streamers themselves. *Among Us* (2018) is a famous example of a, at that time, two-year-old indie game becoming an international success due to a couple of streamers (notably Sodapoppin) popularizing it within their friend groups and playing it live (Grayson, 2020).

Certain games are even developed with twitch integration, making the passive stream viewer into an active participant of the game. In *The Jackbox Party Pack 7* (2020), viewers can join

through a Twitch browser plugs-in and extensions and act together as a single participant in the games played (O'Connor, 2020).

What this study explores, however, are the communities within the streams themselves, microcosms of a state, with a government, judges, and executioners. It dives into the essence of laws, both explicitly and implicitly conveyed to its inhabitants. Most importantly, this research is about the nature of the gaming community on Twitch.tv through the lens of Social Contract Theory.

## **2.2 Philosophical Basis of Social Contract Theory**

Social Contract Theory can be explained as “the view that persons’ moral and/or political obligations are dependent upon a contract or agreement among them to form the society in which they live” (Friend, No date). Social Contract Theory is the rules integrated into human society, how we as humans live and work alongside it, and the consequences in place of neglecting it (Carpenter, Slauson & Snyder, 2006). These fundamental parts build the Social Contract as a whole. Taking away one part would render the contract useless and would revert that society back into what is called the “State of Nature”. This state lacks rules that force behaviors and as such cannot form organized social structures (Carpenter, Slauson & Snyder, 2006).

The theory dates back as far as Socrates (469 – 399 B.C.) where he states a similar argument in *Crito* to why he should accept his death penalty. Socrates argues that without rules that force certain behaviors one cannot achieve organized social structure. These rules and their reinforcement are what the Social Contract is built upon, and what gives tools to build governments. Socrates believes that this state acts as our most fundamental structure and “as such deserves our highest allegiance and deepest respect” (Friend, No date). He believes this so whole heartedly that when he receives the death penalty, even thinking that it is unjust, he accepts it, due to the laws put in place that have to be obeyed (Carpenter, Slauson & Snyder, 2006).

Modern moral and political theory is the basis for Modern Social Contract Theory. The main influencers of this modern take and the basis behind what is considered Social Contract Theory today are pioneered by Hobbes, and later Locke and Rousseau. These three have led to the Social Contract Theory to be one of the most dominant and influential theories within morality and politics (Friend, No date).

### **2.2.1 Hobbes**

The first modern appearance of the Social Contract is theorized by the philosopher Thomas Hobbes. Hobbes lives during the English Civil War, 1642-1648, when a conflict between monarchy and democracy is prevalent. His philosophy consists of his political theory, in relation to “human motivation” his “theory of the social contract”, explained with the “State of Nature” (Friend, No date).

The first appearance of the Social Contract is in Hobbes’ book *Leviathan* from 1651 where he discusses the emergence of social structures and the relationship between people and the law. According to Hobbes, the time before the existence of the Social Contract, people lived in a State of Nature - a moment when humanity lived in fear and chaos, without the existence of



social structures and rules (Laskar, 2013). He states that humans are innately drawn to their self-interests and desires. Thus, human behavior is based on the satisfaction of those desires. Moreover, human behavior is motivated by rationality, as people strive to satisfy their desires in the best way possible. Hobbes believes one of those desires is their wish to achieve order, which drives them to give up their freedom, for the sake of creating a functional society. Thus, "...given that men are naturally self-interested, yet they are rational, they will choose to submit to the authority of a Sovereign in order to be able to live in a civil society, which is conducive to their own interests" (Friend, No date). Human nature itself, as described by Hobbes, is what causes people to comply with authority and agree upon a Social Contract.

He describes the Social Contract as the emergence of social structures, law, authority, and the disappearance of individual liberties. The law is a moral guide and should be looked at with highest priority, even if it means that one should surrender their liberties and rights in order to maintain peace (Laskar, 2013).

Hobbes' philosophy is very relevant to this research, as it forms the base of the theory about people's tendency to follow a social structure. The desire to pertain order is an important factor of human behavior and extends to both physical and online interactions between people. Similarly to the law that Hobbes' talks about, Twitch.tv functions under Terms of Service guidelines that govern people's interactions during broadcasts. This research explored how written rules are valued and applied during live streams. Also, it revolved around both the written and unwritten rules of Twitch, that emerge from the social dynamics of a live broadcast. The main aim was to understand if Hobbes' theory about the prioritization of written law as a moral guide could be applied to the online social space that Twitch has built. The comparison between Twitch and government structures was further explored with John Locke's theory on law and property preservation.

### **2.2.2 Locke**

John Locke believes in the "Golden Age" of the State of Nature. A state without law, driven by peace, compassion, mutual cooperation and preservation. The natural way of mankind, "a state of perfect and complete freedom to conduct one's life" (Laskar, 2013, p.3). Even if the state is without laws or government, a state of morality persists throughout. It is neither harsh nor barbarous, but Locke still recognizes that it is not without faults (Carpenter, Slauson & Snyder, 2006).

Locke states that "private property is created when a person mixes his labor with the raw materials of nature" (Laskar, 2013, p.3). This idea of property is essential in his argument, for it is what a person seeks when they decide to leave the State of Nature behind. To assure their personal welfare, man must form a Social Contract with one another around mutually beneficial rules (laws) that are in turn upheld (Carpenter, Slauson & Snyder, 2006). Due to the absence of an established law, an impartial judge, and a power to execute laws, property in the State of Nature is insecure.

Locke argues that this is the reason men leave the State of Nature behind, and enter a Social Contract - to protect their property. It is important to note that Locke does not see this as man surrendering their rights to a single individual, because he believes that "the basis for social cooperation lies in reason rather than coercion" (Carpenter, Slauson & Snyder, 2006, p.2). This train of thought helps Locke "de-emphasize the enforcement aspects of the Social Contract Theory" (Carpenter, Slauson & Snyder, 2006, p.2).

This research explored the relation between the Lockian approach on Social Contract and entertainment, one of the main purposes of Twitch broadcasts. A closer look was taken at variety streamers, whose audience watches and interacts in order to enjoy a social event and does not necessarily focus on the actual video game that is being broadcasted. Although the game might influence the rules that apply during the livestream, the main focus is not necessarily related to the gameplay and mechanics, but rather to the personal game experience that the streamer is providing. This research explored the connection between the theory on private property and the interactions that Twitch users participate in. Property was compared to the user's right to participate in chat, view the broadcast, and enjoy the show. Similarly to Locke's perspective on how people agree to a Social Contract and give up the State of Nature in order to receive benefits from the system, Twitch users agree to the rules that each stream has in order to enjoy the community and entertainment that the broadcast provides. To expand the concept of giving up personal desires in order to benefit from the Social Contract and participate in society, another prominent philosopher by the name of Jean-Jacques Rousseau was included.

### **2.2.3 Rousseau**

According to Jean Rousseau, the Social Contract is a "hypothetical construction of reason" (Laskar, 2013, p.5). The initial State of Nature that Hobbes and Locke mention is a state of freedom and happiness before the existence of modern civilization. Eventually humanity's "General Will" drives them to create a social structure that prioritizes the good of the society and the majority instead of the individual and the minority. Thus, he claims that the Social Contract is a construction that limits one from their individual freedom for the sake of civilization thriving (Laskar, 2013).

Rousseau combines both the Lockian and Hobbesian perspective on Social Contract and discusses its main purpose to preserve the needs of the masses. He focuses on the fact that Social Contracts exist in situations where a large group of people needs to exist together. To form a functioning society, it is important to have a common goal that benefits the community, rather than certain individuals. This study aimed to find out how this could apply to the Social Contracts that are built on Twitch, especially because of the anonymous nature that Twitch communities have. As Twitch users come from all over the world, it is important to analyze how the rules benefit the majority and whether there are minorities, certain types of users or behaviors, excluded from the rules of the Social Contracts.

These philosophical takes on the Social Contract are discussed in order to explain the essence of the Social Contract theory and to give context for the analysis presented in this research. As a follow up, a closer look is taken at more recent approaches. While still using the mentioned philosophers as a base for their theories, the following works present alternate ways of looking at the Social Contract Theory. Specifically, they also give a closer look at the Theory's applications in social media research, which is closely related to the study of Twitch as a social gaming platform.

## 2.3 Applied Social Contract Theory

More recent works on Social Contract Theory utilize the philosophies of Hobbes, Locke and Rousseau in the ideological aspects of human relationships, rather than explaining political theories.

### 2.3.1 Social Contract as Ideology

An example of this is “Social Contract as Ideology” by David Gauthier (1977), where the author analyzes the philosophers’ arguments and discusses the essence of human relationships, while defining the stance of the “contractarian”.

The main topic of the paper is the fact that human interactions in society are based on relationships that have a contract-like nature. The author defines Hobbes’ stance as “radical contractarianism” where “...thoughts and activities, insofar as they concern ourselves and our relationships, are best understood by supposing that we treat all of these relationships as if they were contractual. Only the relation of hostility is excluded from the scope of contract, and only it is natural to man. All other human relationships are treated as essentially similar in character, and all are conventional, the product of human agreement” (Gauthier, 1977, p.7). Nevertheless, the author suggests an alternative look at Hobbes’ philosophy on the State of Nature. While still agreeing with the fact that the State of Nature is based on the individual desires and principles that people have, Gauthier presents his theory on the Social Contract by explaining different types of situations and analyzing their outcome. In order to explain his views, he defines a number of terms:

According to Gauthier the State of Nature is the relationships between people that emerge when they act upon independent principles and Society is the relationships between people if they acted upon mutual principles (Gauthier, 1977).

- Natural Outcome is defined as the outcome of actions that result from full State of Nature, as defined previously.
- Optimal Outcome is any alternative outcome that would lead to a better result for one person than another person in the relationship, therefore, an unbalanced result.
- Stable Outcome is described as an outcome in which no person can do anything to make the situation better for themselves. If the outcome is not stable, people are more likely to ruin the agreement and change their actions for the better.

Gauthier separates human relationships under the Social Contract into three categories:

- Type one situations lead to some Stable Outcomes that are Optimal, and they are not worse than the Natural Outcome, as the results are satisfying. He claims that in these situations people are likely to agree to a compromise and act on any principle, as long as nobody else is strongly against the result.
- Type two situations are ones where some outcomes are Stable, Optimal, the result is not worse than results from Natural Outcome, and some participants are greatly dissatisfied, while others are greatly satisfied by the results. These

types of situations might lead to a bargain between the disagreeing parties, because if each one independently acts, it will cause a big conflict.

- Type three outcomes are Optimal, results are not worse than the Natural Outcome, but no satisfying outcome is Stable. People are tempted to completely disagree to act upon any principle that is common, since each party can act upon their own principles to bring a more satisfactory result (Gauthier, 1977).

Gauthier's categorization of human relationships is closely related to Hobbes' theory on people's desire to satisfy individual needs. People agree upon a Social Contract as long as it satisfies their needs. Moreover, Gauthier separates Social Contract as ideology from the nature of political society and defines it as "the existence of some form of external constraint, that is, coercive authority" (Gauthier, 1977, p.16).

Gauthier's approach on State of Nature gives a better understanding of the reason for people's behavior. His theory on people's willingness to agree upon rules, based on their outcome, is related to the essence of the Social Contract - an agreement to follow a social structure in order to thrive peacefully together. His theory revolves around the ends, rather than the means, which can help us understand how people justify their choices and their personal reasons for agreeing to a Social Contract. However, in this study describes the process through which the Social Contract is built and enforced, in a setting where entertainment is at the center. Thus, this research is more specific and not all listed types of situations that Gauthier describes might apply. Moreover, the platform that was researched is an online space. This brings a more complex interaction between people, especially because of the anonymity that websites like Twitch provide to their users.

### **2.3.2 Social Contract in Online Platforms**

Another more recent adaptation of the Social Contract Theory is described by Joni Salminen, Nicolas Gach, and Valtteri Kaartemo (2018) in their investigation of the applications of the Social Contract in online platforms, which discuss parallels between the political and social philosophies of the Social Contract and the way social media platforms are set up. The paper focuses on the fact that relationships between stakeholders on online platforms are based on a "binding agreement - in explicit or implicit form - struck between governed and governing people" (Salminen, Gach & Kaartemo, 2018, p.49). Thus, the authors compare the platforms' structure to governments. The structure exists to guide the way participants of the platform behave, in order to benefit both "governed 'subjects'" and the "structured ecosystem" itself (Salminen, Gach & Kaartemo, 2018, p.49).

In order to further investigate how Social Contract is applied in online platforms, the authors present a framework called PaaSC - Platform as a Social Contract. The framework consists of four important factors that build the Social Contract on online platforms: Alignment of Stakeholder Interests, Stakeholder Support to the Contract Existence, Economic and Social Justice, Transparency on Expectations. With these four categories the authors describe and evaluate the Social Contract of Youtube.com and its monetization and advertising policies (Salminen, Gach & Kaartemo, 2018).

This is not only relevant to this research because it covers an online video platform, similar to Twitch.tv, but also because it discusses the concept of explicit and implicit rules. The Social

Contract that online platforms utilize is both written in its guidelines, and also emerges as an unwritten dynamic between the users. The mentioned paper presents an example of an online platform where the contract is more complex than a written law and its investigation requires a closer look at the different interactions that its users agree on. However, in the case of this research, approaching the study by establishing a framework before performing the method could constrain the potential for meaningful results. Therefore, this take on the Social Contract Theory has limitations, as it only tests the applicability of the PaaS framework. That is why it was not directly used, but rather gave inspiration for this research.

## **2.4 Background Summary**

The theoretical background of this research gives context to the main topic, Social Contract Theory, presents different previous works, and ties the theory to Twitch as a social space. First, the platform Twitch.tv is described in order to explain its essence and its relevance to the gaming community. Twitch is a live-streaming platform from 2011 where people broadcast content ranging from their everyday life to talk and game shows. Because of its origin, as a game related spin off of the website Justin.tv, a large portion of the content on Twitch revolves around gaming. Nevertheless, the focus of this paper is the communities that interact in the broadcasts, as we look at them through the lens of Social Contract Theory. Social Contract Theory is explored by describing its origin, the philosophical basis, as well as presenting more recent works that show previous applications of the Theory. Social Contract Theory is defined as the rules, agreements that guide people's moral and political responsibilities, construct society, and how people live together. The lack of Social Contract is described through the term State of Nature where people do not apply rules and social structures do not exist.

The first instance of the Modern Social Contract is presented by the philosopher Thomas Hobbes. This paper focuses on Hobbes' theory as a basis for the analysis on people's motivations for their behavior in social structures, as well as his thoughts on the value of authority and written laws as moral guides.

Another perspective on Social Contract Theory is presented by John Locke. Locke's theory is used, as the concept of property was adapted and applied to the entertainment sphere that Twitch has created. The viewers agree to go by the rules in order to benefit and receive entertainment, interactions within the community, and the right to use the platform's services.

Jean-Jacques Rousseau's take on the Theory is also presented. His perspective revolves around the concept of the General Will where people have a common goal to prioritize the majority and work in the name of the prosperity of society. Rousseau's point of view is connected to the dynamics between majorities and minorities and the overall common goal of a large group existing together in peace.

Then, some more recent applications on Social Contract Theory, based on the Theories of Hobbes, Locke and Rousseau, are presented. David Gauthier examines the Theory in the context of human ideology. Gauthier's model of situations can be used as a basis for evaluation and analyzing the reasoning behind people's behavior overall. However, this research dives deeper into people's interactions, as it explores the process through which rules are enforced and applied. The other more recent application of the Theory is from the paper "Platform as a Social Contract: An Analytical Framework for Studying Social Dynamics in Online Platforms". There the authors perform research on the online platform Youtube and

categorize the relationships between people on the platform through a framework called PaaS - Platform as a Social Contract. Inspiration is drawn for this research from the method presented in this paper, but the framework presented is not directly used, because it is not directly related to Twitch and the research question of this thesis.

### **3 Methodology**

We performed our research by observing the behavior of people on the platform Twitch.tv. The investigation was based on an ethnographic approach where the main focus was the behavior of people in various online communities.

#### **3.1 Ethnography as a Method**

Ethnography is defined as the study of society and cultures, where the researchers get immersed in the studied community in order to understand the meaning of people's behaviors, and everyday life (Brewer, 2000). The main purpose in ethnographic research is to study social relations and get intimately familiar with the community by observing and participating (Brewer, 2000).

The first emergence of ethnography appears during the "classical tradition of social anthropology in Britain" (Brewer, 2000, p.11). During the 20th century, as it is considered a branch of anthropology, ethnographic researches consist of various methods like: living with a community, participating in the community, interviewing members of the community, collecting artifacts, drawing maps. Moreover, the research would take several years (Hammersley, 2006).

However, social sciences today redefine modern ethnography, because of the emergence of technological advancements that change the process that researchers follow. More recent research involves: researchers not living with the research community at all times, only spending a certain amount of time, focusing on social institutions and observing when and how they function, "part time" observations. Also, the opportunity to use audio and video recording devices in order to record observations makes the research quicker to perform, as more recent fieldwork lasts months rather than years (Hammersley, 2006).

There are some disagreements about the definition of ethnographic work, as some researchers are uncertain "whether the researcher must locate what is being studied in the context of the wider society, or whether instead he or she should concentrate on studying in great detail what people do in particular local contexts" (Hammersley, 2006, p.6). In our study we choose to concentrate on a specific type of social setting and furthermore, we are investigating an online anonymous space. Thus, we focus on a type of ethnographic method called netnography.

#### **3.2 Ethnography Applied in Online Research**

Netnography is characterized as a variation of ethnography, where researchers gather information about online communities (Bowler, 2010). According to Bowler Jr. some authors define the netnographic research as "a specialized type of lurker" as oftentimes netnography

revolves around more observatory work, rather than the participatory nature of the original ethnographic research (Bowler, 2010, p.1271).

Another important part of Kozinets' approach is his model for the procedure that the netnographic research must follow. As stated in Bowler's article (Bowler, 2010), Kozinets' framework includes following steps:

- Research planning.
- Entree - planning research questions and "identification of appropriate online community for a study" (Bowler, 2010, p.1272).
- Data collection - "direct copy from the computer mediated communications of online community members and observations of the community and its members, interactions and meanings" (Bowler, 2010, p.1272).
- Analysis and interpretation - classifying the data and giving it context.
- Ensuring ethical standards.
- Research representation.

The method of this study was based on Kozinets' model for netnographic research, as described above, and it was adapted to the unique online space that Twitch is. The research involved a netnographic approach where a selection of broadcasts was observed and we gathered qualitative data without involving ourselves or interacting with the community. We chose to apply the more passive and observatory method in order to mitigate the risk of us influencing the participants and evoking our own bias and experience with the broadcasts. We decided to not use interviews and questionnaires, limiting our scope, as our research was performed in a short period of time. Moreover, the communities that were studied consist of large numbers of people and our research team was small, thus, limiting our ability to personally interact with a good amount of individuals and record their personal experience. As this research is connected to Social Contract Theory, we focused on the overall behavior of the Twitch online society, rather than the individual experiences that participants had.

### **3.3 Procedure of Research**

We observed four selected English speaking streamers on Twitch.tv: xQcOW, CohhCarnage, 39daph, and Forsen. All of these streams were observed exclusively when the streamer starts to play games, as some of the selected broadcasts had introduction sections and sometimes the streamers partake in activities other than gaming.

Once the streamer started to play games, the observation commenced. The researchers simply watched the broadcast and recorded their observations without engaging or participating in the community's interactions.

We split the streamers between the two researchers. Each stream was observed for a total of two uninterrupted hours. Streamers xQcOW and 39daph were observed by Atanasova, while streamers CohhCarnage and Forsen were observed by Svensson. We recorded each observed broadcast with OBS as a backup and in case we did not have enough time to record all of our findings during the live broadcast. We made sure to note down the timezone, during which each stream was being observed.

We observed the application, enforcement, usage, and breaking of the explicit and implicit rules of each broadcast. In order to do that first, we noted down all of the written explicit rules on the streamer's page, if any. First, we entered the chat settings in order to view the chat rules for each channel. Then, we performed the research by watching the broadcasts through Google Chrome, with enabled browser extensions in order to see all of the emotes used in the chat. There are a number of variables that were observed and noted down through timestamps, descriptions of behavior, and paraphrasing of responses from the streamer and chat:

- What game is being played on stream?
- Streamer interactions with chat - when they are reading and responding to chat messages. We also record the number of times such interactions occur to have a rough idea of the level of interaction.
- Streamer interactions with donations, bits, and subscription messages - when they read and respond to those types of messages.
- Chatter interaction with chat - when they respond and react to messages in chat
- Chatter interaction with streamer - when they respond and react to the broadcast.
- Chatter interactions with donations, bits, and subscription messages - when they respond and react to those types of messages.
- Common emote uses in chat - when chatters use emotes instead of words to communicate.
- Streamer reactions to people breaking explicit rules.
- Streamer reactions to people breaking implicit rules.
- The chat's reaction to people breaking rules.
- Moderation of chat by moderators and/or moderation chat bots.
- Moderation of chat by the streamer.

Through observation of the stream, we noted down the implicit rules of each community and their enforcement.

### **3.4 Limitations and Ethical Considerations**

This study was constructed by first deciding upon what streamers were to be chosen. The "variety" sub-category (not an actual category on Twitch.tv) was chosen due to our perception of a more engaged community. This is because the streamers that stream variety do not have to rely on the game they are playing to engage their community. The viewer is simply there to partake in whatever the streamer sees fit and to interact with fellow chatters. The streamers chosen were xQcOW, CohhCarnage, 39daph, and Forsen, with their communities as the participants. This was in part due to an observed high variety of different games being played on their streams and an international user base producing interesting and unique dynamics between the streamers and themselves.



This study was not intended as a dissection of Twitch. Understanding why people watch others play, how you can design a game to succeed on twitch, viewer/streamer interactions in-game, and how that affects game design in unintended ways, are not topics to be tackled by this thesis. These were all considered at one point or another before it was settled upon a study where we as researchers view twitch through the Social Contract lens. The topics that were not covered were also considered as supplementary additions to our thesis, but due to time constraints and the overall scope of this paper, they were not included.

A non-active observatory method was chosen to be used for our immersive data collection. It can be categorized as such through the definition presented by Robert V Kozinets, where “the capture of your own personal notes, observations, and screen captures” is regarded as immersive data collecting (Kozinets, 2020, p.178). This research does not fall into any other category presented, with those being investigative (archival search and save) or interactive (direct communications) due to us not planning to go through older recordings of streams we were not present at, nor did we plan to directly interact with chat in any capacity (Kozinets, 2020).

We believed that a more natural and interesting result would yield from not informing the streamer nor the chatters that they are participating in this study. Seeing the streams community act, react and interact without the shackles of knowledge that they are being recorded would give the participants the best possibility to present how their Social Contract differentiates itself from others. The moral question then arrives if this type of research is ethical, and we consider it to be. Through the ethics process flowchart, one can see that the immersive process of this study is regarded as ethical, as seen in figure three (Kozinets, 2020).

For the chatter participants we anonymized their usernames and interactions through chat by paraphrasing their communications. This could introduce a certain level of bias, because we as researchers have previous experience with the platform. However, we performed the study without including our personal perspectives and presented the data from a neutral standpoint. We did not consider individual viewer identities integral to the research question, instead we put focus on the larger entity of chat that encompasses all viewers and represents the “society” of the stream. By comparing this to the ethics process flowchart, this type of information is not revealing private interactions, it is not revealing sensitive data and we can appropriately anonymize it, which according to the flowchart in figure three makes it “Ethics OK!”.

Comparatively, we decided upon not anonymizing the streamers usernames since we considered this research usable for future studies as a tool to compare these communities and streamers to their past selves. As the streamer’s identities are integral to this, we considered if the benefits of its inclusion outweighed the risk of revealing sensitive data, as well as taking into consideration the public nature of Twitch as a public site where one does not need an account to view its content, and as such does not warrant a special ethical procedure, we decided upon that including the usernames was the right choice (Kozinets, 2020).

By defining this, one can view it through the ethics process flowchart in figure three once more as we did not reveal private interactions. We did, however, reveal the identity of the streamer being recorded and analyzed, but as mentioned we consider the risk to be outweighed by the benefits of stating the username. This leads to data security, being defined as “The steps taken to ensure that only appropriate individuals involved in the research project have access to its sensitive or confidential data” (Kozinets, 2020, p.183). In this particular case, we as researchers have made sure to keep all directly recorded data, those being the

notes taken directly from the stream, behind password protected google accounts with two step verification turned on. With this in mind, we considered ourselves to be “data secure”. Then after anonymizing the direct interactions the streamers might have had with specific users, like changing their usernames or paraphrasing what is being said, our data can be, according to figure three, considered “Ethics OK!”.

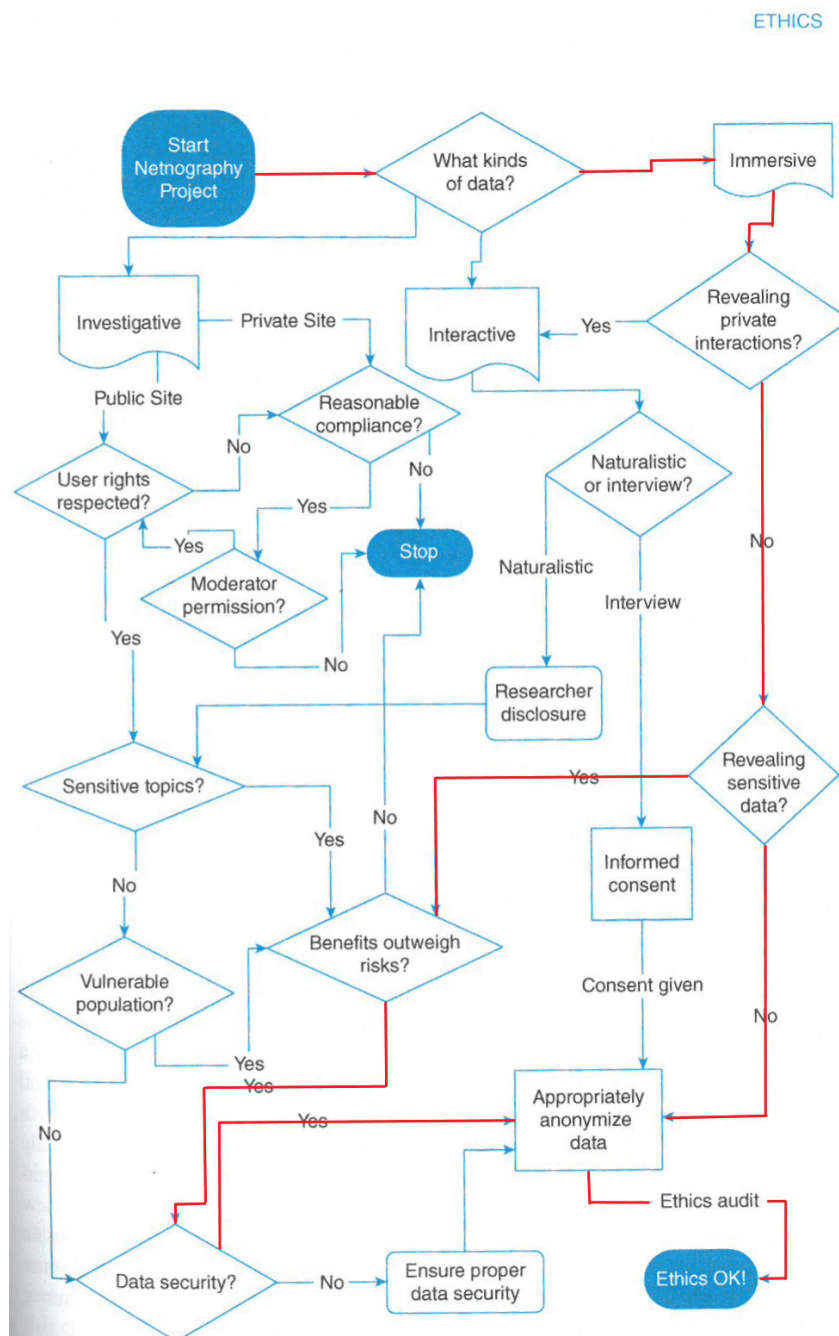


Figure 6.3 A research ethics process flowchart for netnography

Fig 3. Ethics flowchart presented in Kozinets *Netnography* 3rd ed. (2020) and modified by the authors to highlight its application to the current study.

## 4 Results

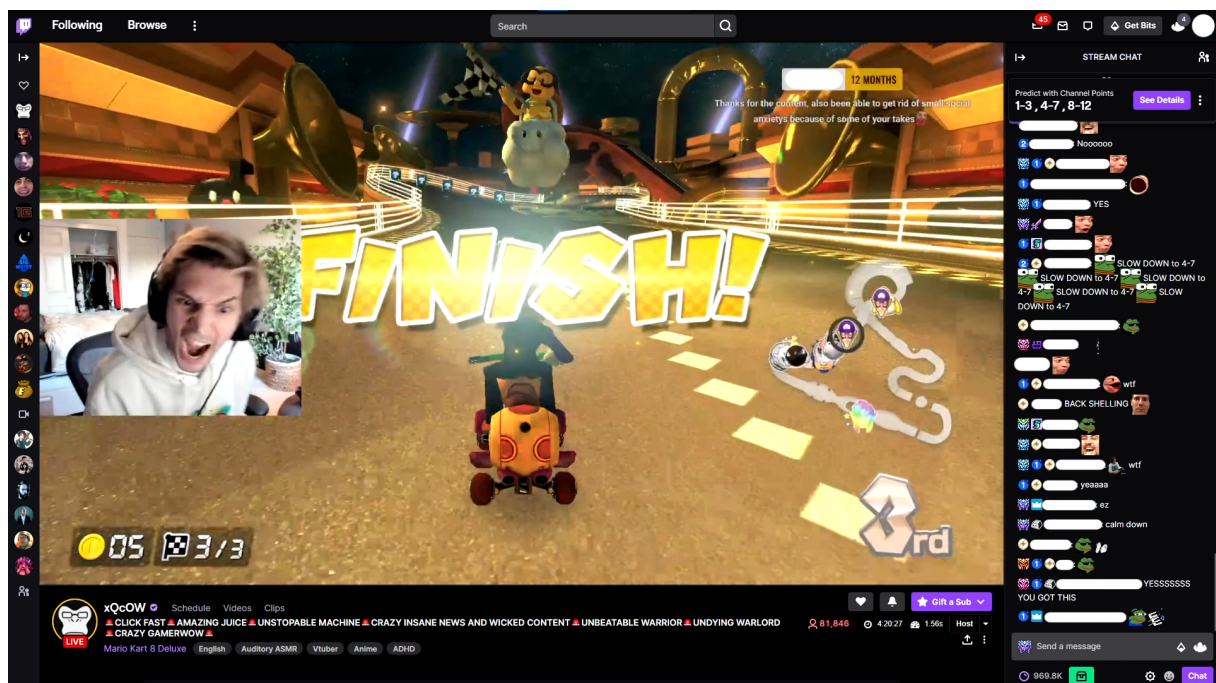
The results of the observations of each broadcast are presented, as categorized in the method. These observations give qualitative data that help answer the question: “How do different variety live streamers on Twitch.tv facilitate unique Social Contracts in their chats and communities?”

We immersed ourselves in each broadcast, without participating in their communities, in order to understand the perspective of an inexperienced Twitch user. We focused on both positive and negative interactions, and noted down both successful and unsuccessful social interactions between the streamer, chatters and chat itself. With this process we could collect data about the application and enforcement of explicit rules, as well as information that could help determine the stream's implicit rules. Thus, as researchers, we could define and categorize each communities' Social Contract.

### 4.1 xQcOW

<https://www.twitch.tv/xQc>

xQcOW, also known as xQc or Félix Lengyel, is a 26 year old French Canadian streamer on Twitch.tv and renowned former Overwatch E-Sports player. His controversial, competitive, and highly energetic personality has attracted a large number of people to his channel, as he is currently one of the most famous streamers on the platform, with his viewers known as the “Juicers” (DomiTheGamer, 2022).

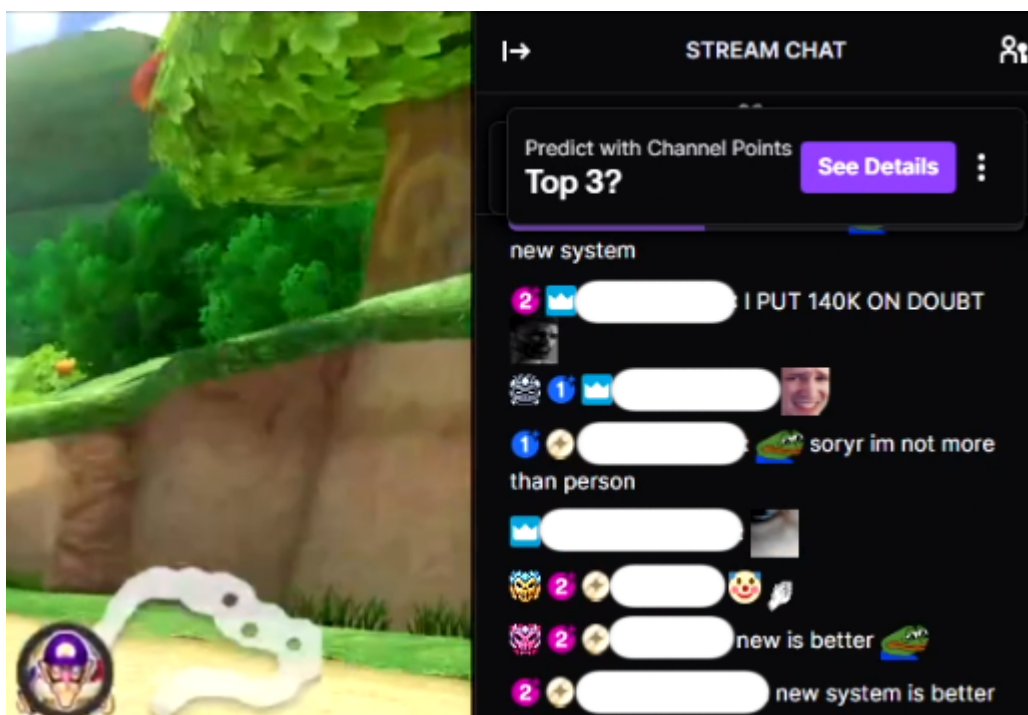


**Fig 4. xQcOW’s stream with chat visible on the right and a 12 month subscription message on the top right corner of the broadcast.**

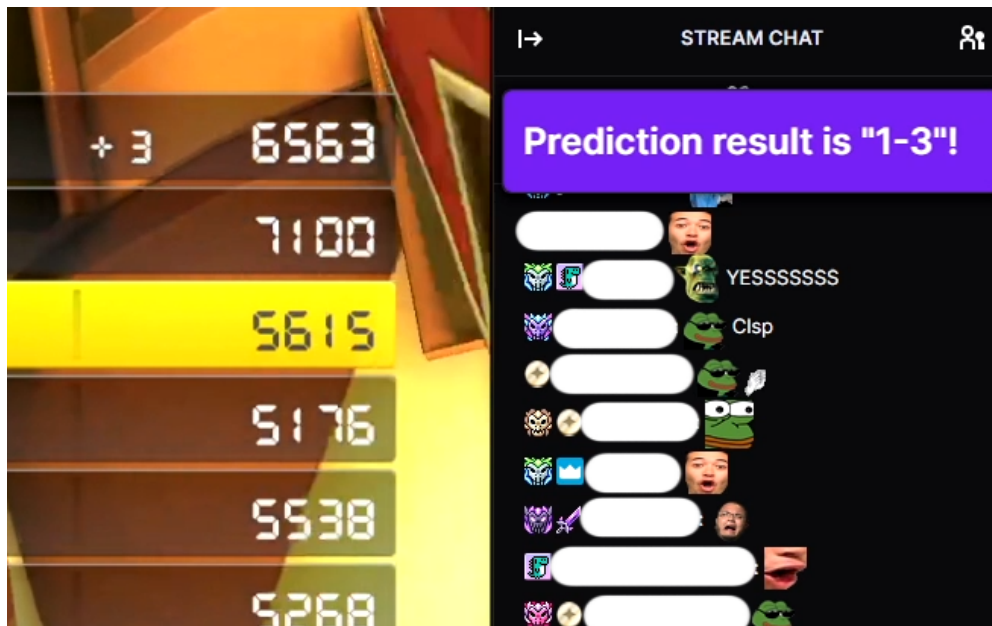
In xQcOW’s chat the explicit website rules of the Twitch Terms of Service are applied, as well as more specified chat rules, that are unique to his stream. These rules include “English

please” and “Fresh memes”. The recorded data is over a uninterrupted two hour session in May, 2022, at 4:16 A.M in the Central European Time Zone. The games played were *Mario Kart 8 Deluxe* (2017) for 50 minutes and *iRacing* (2008) for one hour and 10 minutes. The average number of viewers watching during the recorded interval was 76 000.

- Streamer interactions with chat:
  - xQcOW directly interacted with his audience around 24 times, where he asked people questions, responded to messages in chat.
  - At first when playing *Mario Kart* he would respond with confidence and reassurance to chatters that doubted his skills. xQcOW would explain how Channel Points Predictions work, pushing chatters to use their points to bet on his abilities to win the race. He would praise chatters who would bet on his success, describing them with the term “real juicers” as a valued member of the community. A couple of times during gameplay, the streamer would ask his chat if the betting system was good. There seemed to be a split in opinions in chat about the prediction systems that he used. After a couple of races he would demand from his moderators in chat to alternate through different systems of predictions seemingly to keep all parties happy.



**Fig 5. Channel points prediction prompt asking if xQcOW will finish in the top three positions of the race with badges in chat, showing which option chatters have bet on, indicated with the numbers one and two.**



**Fig 6. Channel points prediction system indicating the results of the race with chatters reacting to the outcome.**

- On the other hand, there were multiple times when the streamer would angrily swear at the chat, calling them names or making fun of them, either when they would laugh at his failure, or as a response to people betting channel points against his success in the race.
- During his *iRacing* playthrough xQcOW would ask for help from chat quite often, as he was unfamiliar with the game. He would ask questions about game settings and whether he might get banned from the game. xQcOW would ask for help from the chat and demand that they stop “trolling”, but his efforts to get accurate information from chat would often fail. However, one instance was observed when someone in chat wrote about another streamer who had messaged xQcOW with a helping video, to which xQcOW responded by watching the video.
- One instance of xQcOW reacting to a chatter who complained about the game played and demanded that he switched to another one. He responded sharply and completely rejected the chatter’s demands.
- At some point chatters would tease the streamer by reminding him that he does not have a license, pointing out that they are a passenger in the car that they own. This would result in xQcOW raising his voice and jabbing back at the chat.
- When xQcOW would win a race or perform really well, he would celebrate by screaming and flaunting, often looking at the chat for approval and making fun of people who doubted his skills.



- Streamer interactions with donations, bits, and subscription messages:
  - It was observed that xQcOW responded to six donation messages. They were all simple and neutral question-answer type interactions, mostly about the games that he was playing or his plans for next broadcasts.
  - xQcOW would get mad when donations messages were spammed, especially when he was trying to focus on what he was doing in-game.
  
- Chatter interaction with chat:
  - When a certain song would be played in the background of the gameplay, some chatters would ask about the names of the songs. Other chatters would respond to them with the title, either through tagging their username or using the reply feature.
  - One instance was observed when a bot in chat automatically typed out an ASCII art message, with a swear word directed at chat, which seemed to be ignored by most chatters.
  
- Chatter interaction with streamer:
  - When xQcOW started playing a competitive game, *Mario Kart*, people in chat would express doubts about his skills. A lot of those types of messages included emotes, the most common one being “PepeLaugh” (a smiling frog, with squinted eyes, seemingly trying to hold in a laugh). An image of this, as well as other common emotes, can be seen in Appendix A.
  - In both of the played games, whenever the streamer would perform poorly in the race or crash, people in chat would type a lot of messages, expressing how bad he is at the game, often accompanied by an emote “OMEGALUL” (an extremely exaggerated laughing face). On the other hand, when he was improving and performing well, the chatters would express praise and encouragement, with variations of emotes that express awe and excitement. Then, when the streamer would finish first in the race, chatters would express satisfaction with the win and praise xQcOW for his achievement, while other chatters who bet on his success also celebrated their winnings.
  - Whenever xQcOW would blame his failure on misclicking, the chatters would express disbelief and denial, claiming that the streamer is saying this in order to cope with their bad abilities, often by using emotes with the corresponding meaning.
  - A similar expression of doubt was seen in chat when the streamer would talk about how he would make the broadcast better and he had new ideas for future streams.
  - Whenever there was music playing in the background of the broadcast, a lot of chatters would start using GIF-type dancing emotes. The emotes seemed positive and joyful. Sometimes the rhythm and movement of the emotes would

correspond to the intensity of the song rhythm. Image frames of these GIF type emotes are also listed in Appendix A.

- Whenever the streamer would call chatters or players in the game names like “moron” or “bitch”, the chat would respond by either laughing through emotes “LULW” and “OMEGALUL” (pictures of laughing faces) or with a gasping exaggerated face “D:” However, when the streamer was mocking the other players without calling them names directly, the chat would laugh and direct his own comments at himself.
  - There were moments when the streamer would fail to understand how to set up the game’s settings or would stumble on his words, to which the chatters immediately responded by mocking his intelligence. Then shortly after most chatters would lose patience and type messages expressing their frustration with him.
  - Whenever xQcOW would get mad, chatters would respond by laughing through emotes like “LULW” “OMEGALUL” or mimicking his behavior with “xqcMald”, a custom GIF of xQcOW screaming at the camera.
  - The chat throughout the whole session would scroll through with messages very rapidly, making it almost impossible to fully read a lot of messages. Most chatters would not tag xQcOW directly when interacting with him. Instead, a lot of chatters would type their messages in all capital letters, often when the message involves a common emote spam.
- Chatter interactions with donations, bits, and subscription messages:
    - Occasionally donation messages would include jokes, however some of them would not be considered funny by the streamer. This caused chatters to agree with the streamer and laugh through emotes like “OMEGALUL”.
    - Even if xQcOW was focused on gameplay and ignored donation messages, the chat would respond to them and react. If the donation was demanding something from the streamer, which was ignored, the chat would reject the demand themselves.
    - When donations included kind and positive messages, chatters would respond with heart emotes in chat, including the channel’s custom emote “xqcL” (a drawing of xQcOW’s channel character holding a heart).
    - Any hint of sexual inuendos in the donation messages would result in a lot of reactions from chatters, often through emotes like “HUH” (an image of a turtle, with a stunned, speechless expression).
    - Oftentimes donations would be directed at chat, either stating the names of emotes or referencing inside jokes and memes, hence enabling people to type certain emotes in chat as a response.

- Common emote uses in chat:
  - Most messages in chat would be accompanied by emotes, varying from xQcOW channel emote library, global Twitch emotes, and third-party libraries.
  - There are three types of emote uses that were most commonly observed: Direct reactions, spam, and/or mimicking. The direct reactions were often emotes used as indicators for certain emotions. For example “monkaW”, an image of a frog with big scared eyes, was used to express nervousness or fear. The spamming of emotes was sometimes used as exaggerated direct reactions or in relation to channel inside jokes/memes. Mimicking was observed as the chat would simply repeat whatever was happening on stream, in the form of an emote. For example, when xQcOW clapped, some people in chat would type the emote “Clap”(a GIF of cartoon hands clapping).
  - The most common response to the streamer’s failure in-game was “OMEGALUL”, an overly exaggerated laughing face.
  - The most common responses to the streamer’s success were “Pog”, “PogU”, “PagMan” that are variations of the emote “PogChamp” (a man with his mouth open, often used to express awe and excitement), “EZ” (a cool frog with sunglasses), and “Clap”. Sometimes in these situations people would use the custom channel emote “xqcCheer” (a GIF of xQcOW clapping and cheering).
  - There was an instance when a player in an *iRacing* match deliberately pointed out that another person had used a chat emote incorrectly. The player expressed that they do not like it, seemingly shaming the other person for their emote usage.
  - Appendix A of this study contains a table of images with the most common emotes used.
- Streamer reactions to people breaking explicit rules:
  - There were no streamer reactions to breaking of explicit rules observed during this session.
- Streamer reactions to people breaking implicit rules:
  - A couple of times the donation messages were either spam or interrupting the streamer. xQcOW’s reaction to these types of donations were very sharp and angry, where the streamer would scream and ask for moderators to mute the donation.
  - There was an instance when a chatter demanded from xQcOW to change the game that he is playing, to which he responded sharply, angrily rejecting the chatter’s demand.



- The chat's reaction to people breaking rules:
  - There were no chat reactions to people breaking the rules observed during this session.
- Moderation of chat by moderators and/or moderation chat bots:
  - All of the observed moderation or lack of it was in relation to explicit rules.
  - There was a small number of chatters who got their messages deleted, possibly by moderation chat bots. These censored messages were usually either not using English letters or some were too long.
  - There was a very small number of messages, that seemed like spam, that were not deleted by moderation.
  - There was an increase in deleted messages observed during the second half of the session.
  - All links posted in chat by chatters who did not have a subscription badge next to their name were deleted, seemingly automatically, as none of them went through.
  - When donation messages were spamming and interrupting the streamer, they were immediately muted by moderators.
  - Some messages in chat would be deleted when the chatter was typing the same message over and over again.
  - There was no moderation of chatters calling the streamer names, that are outside of Twitch Terms of Service (TOS), like for example "idiot".
  - There was an instance when a chatter typed a very long message, however, it was not censored. This happened when a chatter was expressing their frustration with the chat's usage of emotes. The message included a lot of rhetorical questions, seemingly cynical and sarcastic. Eventually this resulted in other users copying the message and spamming it in chat. Then, other chatters proceeded to add the emote "Chatting" (a GIF of a character who is typing on a keyboard) to the message, seemingly mocking the spam by engaging in a different spam of their own.
- Moderation of chat by the streamer:
  - There were a few moments when the streamer would ask the mods to mute spam donations and to set up the points betting system.

## 4.2 CohhCarnage

<https://www.twitch.tv/cohhcarnage>

CohhCarnage, also known as Ben Cassel, is a 37 year old Twitch.tv streamer from North Carolina, U.S. His background includes music production and being a DJ. He has been active on the platform since 2013, with his streams starting early in the morning and a dedicated lunch break after half of a day's stream (Brilovely, 2022).

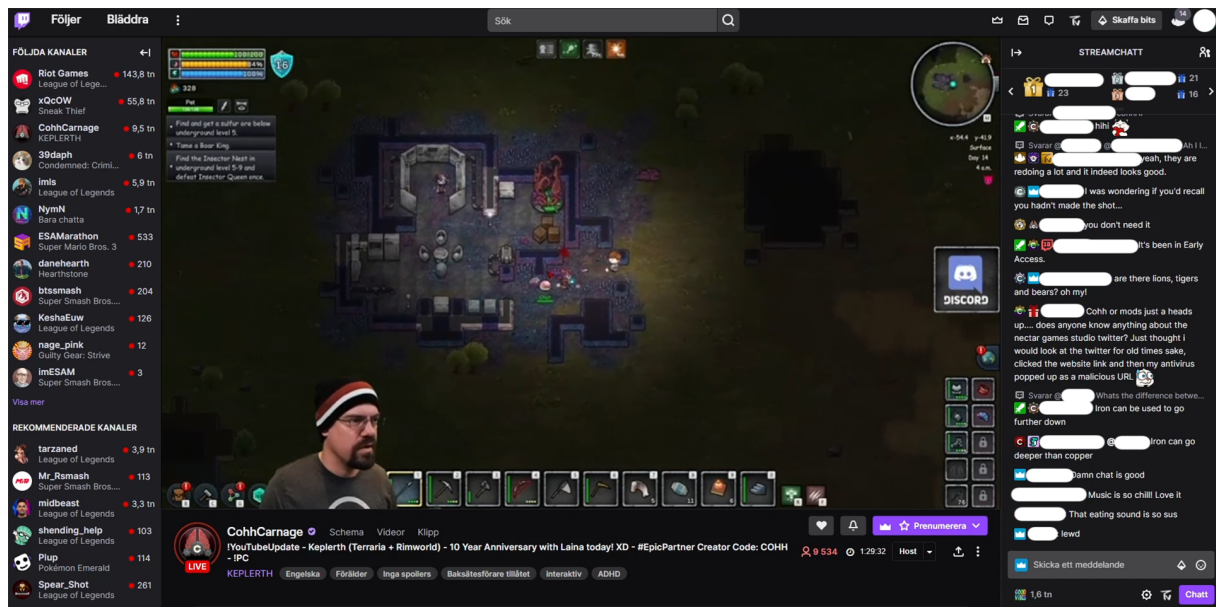


Fig 7. CohhCarnage's stream with chat visible on the right.

In CohhCarnage's chat the explicit website rules of the Twitch Terms of Service are applied, as well as more specified chat rules, that are unique to his stream. These rules include examples such as "keep the spam to a minimum" and "being respectful". CohhCarnage is unique from the other streamers due to him having a more extensive rulebook for chat found on his own website, called "The Cohhilation". This website is linked underneath his stream window. Some examples from this include "No racist, homophobic, or otherwise socially derogatory terms", "Please attempt to be courteous, respectful, and helpful as much as possible" and "try to keep conversations in English!" (Rynea, 2015). The recorded data is over a uninterrupted two hour session in May, 2022, at 2:26 P.M. in the Central European Time Zone. The game played was *KEPLERth* (2022). The average number of viewers watching during the recorded interval was 9000.

- Streamer interactions with chat:
  - The level of interaction in CohhCarnage's stream was high, with the streamer often asking and answering questions with chat.
  - Throughout Cohh's stream he would often engage chat by asking them questions regarding the game. Whenever he would encounter either a new or an interesting situation he would comment on it, provoking an answer from his viewers. As mentioned in Cohh's rules, his community is one that "loves

helpfulness and interaction”. Some of the answers given to him he eventually applied to gameplay.

- o Cohh would also often answer questions regarding what game he was playing, where he was in the game, his current goals, what other games to expect and just general questions about his life as a whole. These messages did not need to be highlighted or paid for to be noticed, but subscribed users were more often answered. This could be due to badges making them more visible. Cohh answered these questions to the best of his efforts, and did not seem irritated by them, treating them with respect.
  - o Cohh would also generally comment on more broad subjects, like the games (KERPLETH) balancing, relevant news such as the delay of Starfield (a role-playing game he is looking to play) and streamers he himself views in his spare time. He could also bring up more personal information, like how during the day of recording it was his 10 year anniversary with his wife, or like when he wished happy birthday to a community member, getting chat in on the celebration, by encouraging birthday wishes.
  - o Cohh also seemed to be targeted as a family friendly streamer, by censoring his own verbal swears live via sound effects.
- Streamer interactions with donations, bits, and subscription messages:
    - o During his broadcast, Cohh would from time to time thank random subscribers for subscribing. Not all were directly thanked by him, but a pop-up on the right side of the screen would display their username with a thanking message.
    - o He would sometimes read an associated subscription message. Cohh would, however, take notice of more “significant” re-subscriptions, like one of a 100-month subscriber. Cohh would also always thank the gift giver when more than five subscriptions were gifted to the community.
    - o A larger amount of channel points could also be spent to highlight one’s message in chat, which some users did to interact more directly with Cohh. He would read these messages out loud and, together with chat, would respond to them.
- Chatter interaction with chat:
    - o Chatters in CohhCarnage’s stream were more often than not directly interactive with one another.
    - o Chatters, both subscribed and not, could state a question openly in chat. Oftentimes another user would answer the question asked by tagging the asker with an explanation. This led to broader interactions from time to time, where other users would join in and add their input on the topic. This could lead to discussion being recognized and joined in on by Cohh eventually. This could also be seen with statements. Users would regularly join the stream and greet all participants. When doing so, many other viewers would greet

them directly back by mentioning their username with a written greeting and emotes.

- o Chat would also discuss matters outside of the direct gameplay presented to them. Other games would be discussed in chat, both ones being played by users and recommendations to Cohh. Wanted sequels, upcoming releases and game engines were brought up through this. Chatters would also discuss their personal lives in chat. Users' ages, daily routine, and vacations where various topics individual chatters felt comfortable discussing amongst themselves.
  - o At one point, a user mentions that chat is not helpful to Cohh's gameplay. It was not clear if this comment was supposed to be sarcastic or not, but chat reacted to this by spamming the emote D: (representing shock). This happened twice throughout the stream. Chat then started typing out an emote called cohGV, an emote with the words "Good Vibes" on them. This type of reaction seemed to fall in line with Cohh's rules about what his chat should be, "a good vibes community with a focus on leaving your bad days at the door and just relaxing".
- Chatter interaction with streamer:
    - o CohhCarnage's chat seemed to immerse itself in the streamed content, as they actively reacted to gameplay and tried to influence the game through the chatting experience.
    - o As Cohh tried to engage chat in his gameplay, he seemed to succeed. Chatters reacted to events, pointed out hidden items and cheered as Cohh traverses the game's world and its obstacles. In-game Cohh had a pet slime named "Chat". With it, chat could associate and role-play as the creature. Whenever it died, chat would act as if they had been slain and whenever Cohh interacted with the creature, chat would answer with an appropriate emote. When prompted to, chat would also answer questions from Cohh to the best of their ability to enhance/advance gameplay.
    - o This could also happen with aspects not related to gameplay. Questions from Cohh on various aspects could be both quickly answered, as well as thoroughly discussed for some time. When reading the games most recent patch notes, Cohh asked chat what they thought, and a surface level response quickly got typed out from various users. This, however, led to a longer conversation between Cohh and chat about a certain aspect of the game (seeds) that engaged a certain group of his community in discussion.
    - o In general, chat was very positive and supportive towards Cohh's gameplay. When he succeeded, they would cheer, and when he failed a majority would support him. Barely any negativity towards the streamer came up during the two hour window the research was done over. The only non-positive reactions from chat that came up were when Cohh jokingly insulted a viewer after his audio quality was commented on, when he got visibly irritated on a game mechanic, and when his repeated use of fart humor got old to chat. These instances all seemed like playful negativity, however, as the streamer did not

react negatively back towards the comments made by those opposed to his stance. These instances were few and far between while neutral to positive ones were abundant.

- Chatter interactions with donations, bits, and subscription messages:
  - Chatters gave positive feedback towards gifted subscriptions and donations. When a “sub bomb” (five gifted subscriptions) would happen, excitement in chat could be seen via positive emote usage. When a highlighted message would be read by Cohh, chat actively engaged itself, by reacting in various ways. For instance, a non-subscriber highlighted a positive message and got a gifted subscription from another viewer.
  - Bots would also thank and greet new and old subscribers with pre-written messages posted in chat.
- Common emote uses in chat:
  - The two types of emotes most often used in CohhCarnage’s chat were the Twitch Global emotes and Cohh’s own channel emotes. The mentioned emotes are listed as images in the emote table in Appendix A.
    - The twitch global emotes are available to all twitch users. To type in chat, one needs to be logged in, but that is the only step necessary to utilize these free emotes that work across Twitch’s platform. These emotes are often the basis for user created emotes utilized in specific communities. Some famous ones are LUL (laughing), DansGame (disgust) and Jebaited (someone getting tricked).
    - Cohh’s own channel emotes were two animated characters reacting in a multitude of ways. These animated characters included less prominently a caricature of himself, as well as  $\frac{3}{4}$  of his emotes being represented by a caricature of his cat Letho. These emotes included “cohhL” (Letho holding a heart representing love), “cohhCheer” (Letho smiling with his paws up, depicting him cheering), and “cohhHi” (Cohh waving, used to greet).
- Streamer and chat’s reaction to people breaking explicit/implicit rules:
  - During the recorded time frame, no instances of rule breaking could be found. No one in chat got timed-out or banned by either bots, mods, nor the streamer. Nothing posted by chatters could be seen as breaking the Twitch TOS, the explicit rules stated on CohhCarnage’s stream.

- Moderation of chat by moderators and/or moderation chat bots:
  - As mentioned, no user was banned or timed-out by mods or bots, but moderation still occurred in another form. At the time of recording, over 10 mods could be found in Cohh's chat. These mods would interact with chat when both prompted to and not. A user would join and greet the chat/mods/streamer and they would respond with a greeting back. Mods would often also answer questions about both the stream and the game shown to asking viewers.
  - There was one bot specifically that had a lot of commands tied to it, automatic ones like greeting viewers, thanking subscribers and generally engaging chat, as well as commanded ones around information and jokes of the stream. This bot would be so active that it at times clogged up chat and made it harder to read.
- Moderation of chat by the streamer :
  - The streamer did not moderate chat during the recorded period.

### 4.3 39daph

<https://www.twitch.tv/39daph>

39daph, also known as Daphne Wai, is a 23 year old Canadian streamer on Twitch.tv. She is best known for her variety streams that include her drawing art and playing various types of video games. Her nonchalant personality has been considered controversial by other communities on the internet (Lukaarda, 2022).

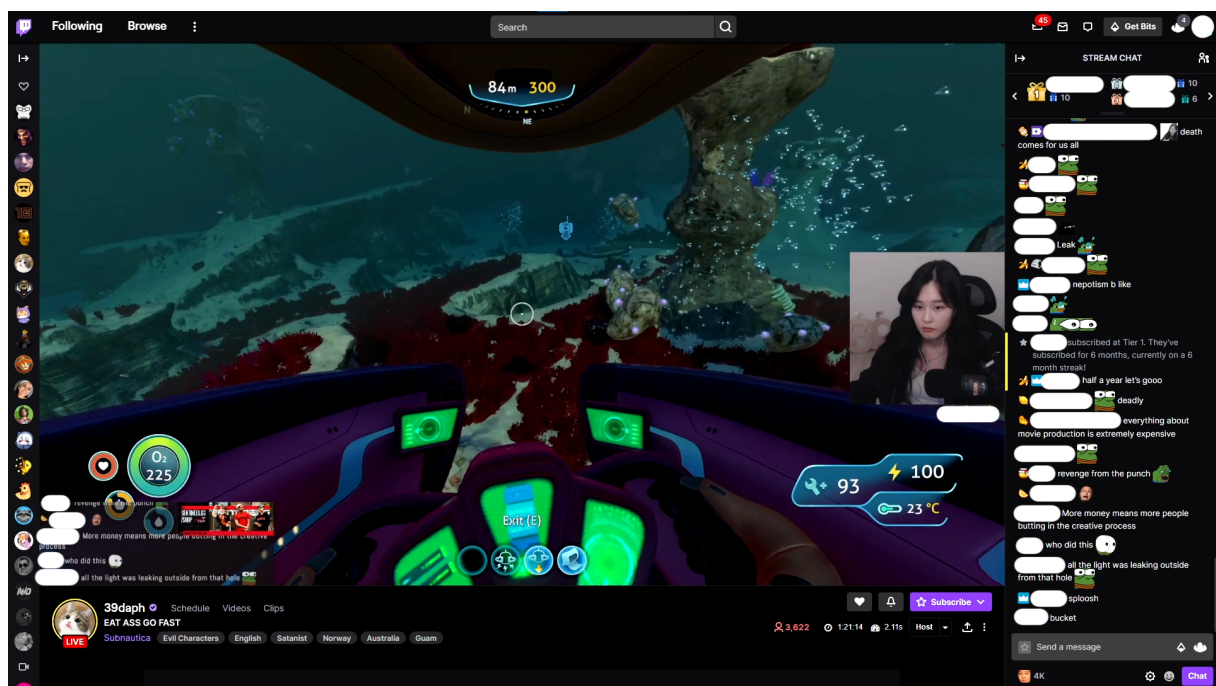


Fig 8. 39daph's stream with chat visible on the right.

In 39daph's chat the explicit website rules of the Twitch Terms of Service are applied, as well as more specified chat rules, that are unique to her stream. These rules include examples such as "one-man spam is prohibited", "if you annoy me + others you will be banned" and "no panhandlers". The recorded data is over a uninterrupted two hour session in May, 2022, at 9:14 A.M. in the Central European Time Zone. The games played were *Subnautica* (2018) for one hour and 48 minutes and *Condemned: Criminal Origins* (2006) for 12 minutes. The average number of viewers watching during the recorded interval was 11 000.

- Streamer interactions with chat:
  - Throughout the whole session 39daph was very responsive to the chat and would constantly communicate with it.
  - There were 47 observed instances in which she directly asked and answered questions from chat.
  - Whenever the streamer would bring up a topic, regardless of its connection to the gameplay, people would join in on the conversation with their opinions, to which 39daph would occasionally respond.
  - A few times chatters would ask the streamer about other games. For example, someone asked about her opinion on Overwatch and she expressed her lack of care for the game.
  - A few times 39daph asked chat about the things she was doing in-game and some people responded genuinely while most people would answer sarcastically. For example, 39daph asked whether she can domesticate a leviathan, a monster from the game, to which people answered that she can, however, their messages were accompanied by the emote "PepeLaugh", a smiling frog, seemingly holding in a laugh.
  - A big portion of the conversations that the streamer would have with chat were not directly connected to the gameplay. At some point 39daph started a conversation about movie suggestions. She talked about her previous bad experience in cinemas when she watched a terrible movie. Chatters responded with disagreements about her opinions. The conversation continued, as more people in chat chimed in with their opinions on the movie that was being discussed.
  - When chatters would ask genuine questions, if 39daph noticed them, she would respond. For example a chatter asked about how she became a streamer and in response she talked about her early experiences as a streamer, how she changed her username multiple times.
  - There were moments where 39daph would read humorous responses from chat and laugh at them. For example, on one occasion she read a comment that was making fun of the sound design of the game that she was playing, which she found very amusing.
  - There was a moment when a chatter mentioned another streamer (xQcOW) who was also live at the time of the broadcast. They were talking about how

xQcOW was abusing an interactive stream where one can feed ducks in a farm by donating to the stream. When learning about this, 39daph paused her gameplay and looked at the mentioned stream. She then expressed how upset she was that the ducks were being overfed by xQcOW. Shortly after, she continued her gameplay.

- Streamer interactions with donations, bits, and subscription messages:
  - There were 26 interactions with subscribers observed during the stream.
  - 39daph would often read out the usernames of people who had subscribed recently and she would thank them for subscribing to her channel.
  - At some point there was a TTS subscription message that joined the previously mentioned conversation about movies, to which 39daph promptly responded.
- Chatter interaction with chat:
  - The most prominent trend in chat was that a lot of users would say “hello” to chat, as they joined the stream, with their message usually accompanied by emotes like “daphHey”(a GIF of the streamer waving her arm). Some chatters would introduce themselves as new viewers and wish everyone a nice day. Usually these types of messages would get responses from other chatters welcoming them. Appendix A contains an image frame of the mentioned custom emote.
  - Some chatters would ask genuine questions about the game that was played, other chatters would promptly respond to those questions by tagging the user in the chat.
  - There was an instance when a chatter jokingly mentioned that they are sick. Despite its sarcastic tone, the message was taken genuinely and two other chatters were observed wishing the person to get well soon.
  - There was an instance in which a chatter would type a command !faq, which would prompt a message from a chat bot, linking to a document that included FAQ.
  - Messages that contained odd innuendos, unrelated to the broadcast, were usually responded to by other chatters that would play along into the jokes.
  - There was one instance observed when chatters would praise another chatter for giving a good suggestion to 39daph about what she should do in the game. The reaction came after the streamer acknowledged the message as positive.
  - There was a bot in chat that would automatically show links to instructions on installing browser extensions for chat emotes.
  - There were multiple instances in which a bot would automatically repeat a message that threatened people who ask stupid questions over and over again.

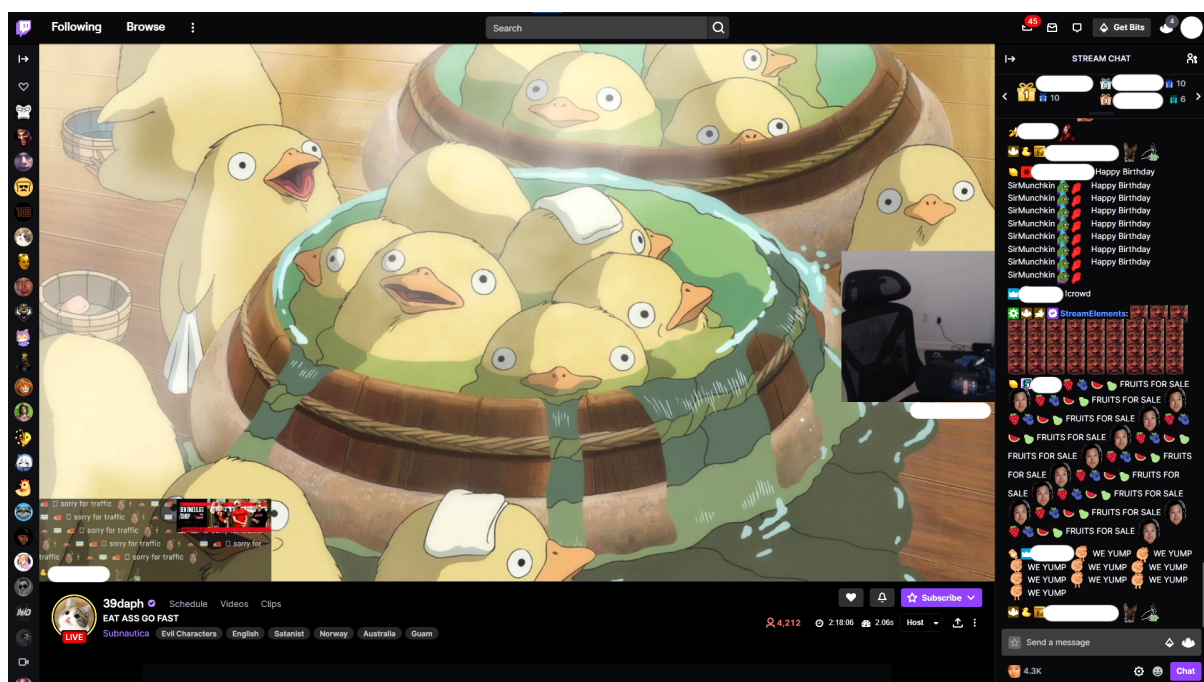


The message was accompanied by the emote “daphMoodGun” (a character pointing a gun).

- There was a moment when a person in chat typed a long message that very descriptively explained to the streamer that they wanted to spam without getting banned. However, the message was ignored by the streamer. One chatter ridiculed the person with the emote “daphTYPERS” (GIF of a character typing on a keyboard).
  - People who disagreed with chat’s usage of certain emotes were ignored by chatters.
  - Chatters who asked about rules, like chat rules that prohibit “panhandlers”, were ignored.
  - However, there was an exception where a chatter asked if one can get banned for singing on twitch, which was possibly directed at the streamers ability to sing. Another chatter responded saying that one cannot be banned for that, unfortunately.
- Chatter interaction with streamer:
    - Whenever the streamer would start singing or the music of the game being played would kick in, the chat would start typing dancing emotes, GIFs of characters dancing.
    - When the streamer would directly say something negative toward a person, the chat would respond with an exaggerated gasp face “D:”.
    - When the streamer would burp, people would keep track of a counter, accompanied with an emote “ChugU” (GIF of a person burping).
    - There was a moment when 39daph brought up J.K. Rowling’s controversial stance on homosexuality and the streamer claimed that the author constantly talks about how much she hates trans people. The chat responded with emotes like “Gayge” (a smiling frog in the colors of the rainbow) and most chatters were ridiculing Rowling. There were no serious responses to the topic observed.
    - 39daph jokingly mentioned controversies connected to the company Blizzard, to which the chat responded with emotes that express nervousness and fear, for example monkaW (a scared frog).
    - 39daph mentioned a traumatic memory when she witnessed someone jumping off of a building. People in chat responded with emotes that express sadness like “KEKWait” (a picture of a man with a sad face). Later, 39daph ended the story by making a dark joke, then someone in chat demanded that she needs to say something funny because after that story they felt awkward.
    - At some point people in chat ridiculed the way 39daph says “deus ex”. The streamer got frustrated with chat and asked about how it is pronounced, and then chatters responded by correcting her.

- When 39daph would complete a task in the game, the chat would cheer her on and post emotes like “peepoClap” (a happy frog clapping).
- There were observations of subscribers and moderators posting links in chat, connected to the conversations at hand.
- When the streamer revealed the death of a cat in a movie, chatters expressed frustrations with her spoiling the movie’s plot, as well as emotes that showed despair like “NOOO” (a GIF of a shaking crying emoji face, with its hands in the air).
- When the streamer cursed in a stereotypical British accent, the chat spammed an emote “3Head” (a picture of a laughing man with a missing tooth, an emote widely associated with a British stereotype).
- Chatter interactions with donations, bits, and subscription messages:
  - There were no interactions of chat with donations, bits, and subscriptions observed during this session.
- Common emote uses in chat:
  - When 39daph would get lost in the game people would laugh at the streamer through emotes like “OMEGALUL” (an overly exaggerated laughing face).
  - There were two main types of emote usage in chat: Direct reactions and mimicking. When the chat was using direct reactions the emotes were used as indicators of certain emotions and faces. For example when 39daph entered an unknown lava-like area in the game that she was playing, people started typing “monkaW” and “monkaS” (variations of a scared frog). Versions of these emotes are available as images in Appendix A. When chatters were mimicking the stream, they were typing emotes that reflect what was happening on the broadcast. For example, when 39daph exclaimed with “oh lord!”, a lot of chatters would type the emote “OHLORD”.
  - A common emote used was “pepeW” (a seemingly tired frog), where chatters seemed to express mild annoyance and tiredness with the broadcast.
- Streamer reactions to people breaking explicit rules:
  - The streamer did not react to any breaking of the rules, in fact, when people asked about more information about the rules, they were ignored by both the streamer and the chat.
- Streamer reactions to people breaking implicit rules:
  - The streamer did not react to people breaking any rules.

- The chat's reaction to people breaking rules:
  - There was a moment when a person appeared on stream, other than 39daph, who spoiled a plot. A lot of chatters expressed their frustration with the spoiler and asked for 39daph to ban that person. There was a chatter who suggested that 39daph should punch them.
- Moderation of chat by moderators and/or moderation chat bots:
  - One chatter was timed out for typing gibberish.
  - When the streamer went to the toilet for a couple of minutes, the chat started spamming emotes and repetitive messages. No moderation during that moment was observed.



**Fig 9. 39daph's stream unattended, as she has left to go for the toilet, with chat spamming.**

- Moderation of chat by the streamer:
  - There was no moderation by the streamer observed during this session.

## 4.4 Forsen

<https://www.twitch.tv/forsen>

Forsen, also known as Sebastian Fors, is a 31 year old Swedish streamer on Twitch.tv. He is known for his career as a professional Hearthstone streamer and later for cultivating a devoted, infamous fanbase known as the “Forsenboys”. Forsen has stated that he does not see himself accountable for his community's actions (Zeta274, 2020).

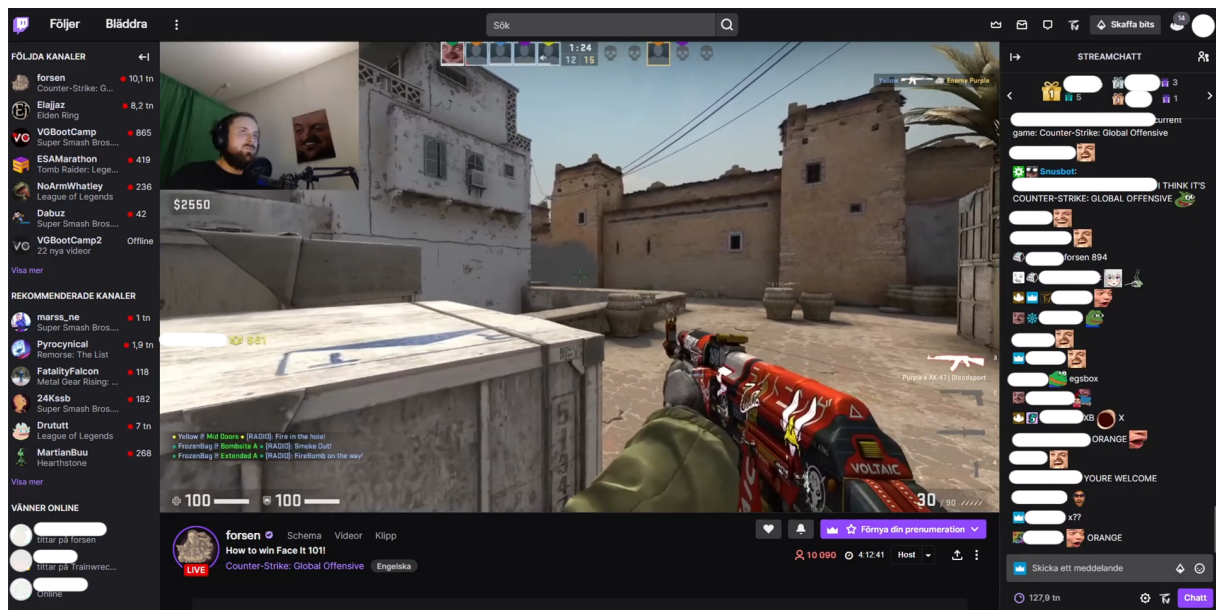


Fig 10. Forsen's stream with chat visible on the right.

In Forsen's chat the explicit website rules of the Twitch Terms of Service are applied, as well as more specified chat rules, that are unique to his stream. These rules include “Don't complain about games played” and “Don't be racist”. The recorded data is over a uninterrupted two hour session in May, 2022, at 10:18 P.M. in the Central European Time Zone. The game played was *Counter Strike: Global Offensive* (2012). Two matches of the game were played, with the first lasting for one hour and five minutes, while the second one lasted for 52 minutes. The average number of viewers during the recorded interval was 9800.

- Streamer interactions with chat:
  - Over the course of two hours, Forsen could be recorded interacting with chat nine times. Often, it was because of chat spamming one message and Forsen taking notice of it. Forsen's chat had a very high number of messages being sent every second.
  - Forsen answered one question from a singular user in chat about the event watched before the recording, and he answered it briefly. This happened at the very beginning of game one.
  - There were seven other interactions, where Forsen responded to prevalent spams in his chat, like when he would perform poorly and chat would make

fun of him by typing various emotes portraying characters laughing (LULE, OMEGALUL etc.), together with the text “so bad”, or whenever chat would recognize a woman in one of the games, with emotes portraying a feeling of love, such as flushE, together with text about Forsen asking the individual out.

- o In the mentioned cases, Forsen would respond with an explanation of his thought process behind his play, or blame his teammates for playing poorly, as well as mentioning to chat to be gentlemen in the presence of a woman after being nice to her in-game.
  - o After Forsen’s responses, a new spam would typically happen in response to his acknowledgement of the chat. After a response to him being bad, chat would often spam one of two emotes, those being “Copesen” and “Clueless”. These emotes portrayed a similar response of Forsen either suppressing or being unaware of how bad he actually is. Some of these emotes can be seen as images in Appendix A.
- Streamer interactions with donations, bits, and subscription messages:
  - o Forsen thanked subscribers three times during his stream. There were no subscriber notifications on, nor a TTS service for donations. He would, from time to time, thank a random subscriber (this happened twice, once reading a message from them as well), as well as thanking a five-subscription gift from one user to the community.
- Chatter interaction with chat:
  - o The chat’s interaction within itself can be mostly categorized into three types of interactions.
    - The first interaction was one where a seemingly random message was sent, and other users seemed to find it amusing. They communicated this by either doing a laughing emote together with a signifier that it is being targeted towards chat, and not the streamer. A more common way to express this, however, was by starting to spam the same message or evolve it into something engaging. This happened a couple of times during the stream. One example being that a user started making fun of a PC brand, and others decided to join them by making fun of the same brand as well as others. This developed into making fun of older and older hardware. Another example being a user spamming an emoticon of an animal together with a wrongly associated onomatopoeia (the text written for what sounds animals make). An example being an emote of a Cat with the text “Woof”. After the initial spam, others adapted it into other animals together with other onomatopoeia.
    - The second type of interaction was one where an ordinary spam occurred, but was, after some time, met with pushback by other community members. They did this by spamming an opposition to the original message, either making fun of the people spamming it or the

message itself. One instance of this occurring was when some chatters started spamming the emote “xqcL” (subscriber exclusive emote from xQcOW, portraying a caricature of the streamer holding a heart endearingly), and were met by a Forsen specific browser extension emote under the same name portraying a caricature of Forsen beating the original “xqcL” emote with a hammer. An image of both the original, as well as the caricature version of this emote, can be found in Appendix A.

- The final chatter to chat interaction could be described as a “chat war”. This one was similar to the second type, but it differed, because it continues for a much longer period and is usually more ill-intent. An opinion would occur, usually mocking one aspect of the stream or chat, then a counter mocking would begin. A prevalent example of this in Forsen’s stream was the Europe versus North America chat wars that occurred frequently, where users on both ends of the argument would mock the others intelligence, looks, political situation, economies and other sensitive subjects through both text and emote usage. A strawman existed for both continents, as well as for specific countries/states, that their opposition liked to utilize to make points (all Americans are fat, all eastern-Europeans are poor etc.). This type of chat war could include other, less sensitive subjects, like another example from the stream being a chat war occurring between xQcOW and Forsen fans, after the previously mentioned “xqcL” interaction developed into a more active back and forth.
- Chatter interaction with streamer:
  - o Forsen’s chat was at its most active while ridiculing others. Those others could be Forsen himself or any other individual present on his stream.
  - o Forsen himself was often met with messages about his lack of skill, or how cringeworthy he could be in certain situations. Chatters often spammed combinations such as the words “SO BAD” with the emote “OMEGALUL” to make fun of failures from both Forsen and his teammates and opponents.
  - o In addition to this, they often commented on individuals’ traits. Forsen ended up playing with various people on his teams, and in almost all cases they were made fun of due to their accents (French), nationality (Russians), religion (Muslims) or gender (women). Often an emote would be spammed that is associated with one of these traits (“Kkomrade”, a depiction of a stereotypical Russian man etc.), including some form of text furthering a stereotype chat had in mind.
  - o Specifically a woman had a lot of chat’s attention on her, with various usages of emotes displaying a flustered caricature of Forsen called “flushE”, together with text indicating a sense of excitement and love. Chat would go so far as to ask Forsen to ask her out, and some users even started doubting that the woman was even a biological woman to begin with, mocking those who assumed she was.

- o However, at some point, some positive feedback was given to all parties. If a player displayed a skillful play, chat would praise them, with emotes such as Pag, an emote indicating an emotion of awe. This happened to Forsen, the woman mentioned above, his other teammates, and his opponents. Finally, if chat had nothing to react to, it would often devolve into repeating spams without context.
- Chatter interactions with donations, bits, and subscription messages:
  - o During the recorded time frame, only one instance of TTS could be found when early on a deliberately “creepy” message was read out by the program.
  - o Chat reacted accordingly by spamming various emotes portraying fear. TTS seemed to have been turned off for the remainder of the stream to let Forsen be able to focus on the game.
  - o Forsen did not have any other form of donation messaging active, as the functions to display if someone just donated/subscribed/gifted subscribers were turned off as well.
  - o However, one function was still portrayed on screen for chat to be able to react to. The stream's top donator was displayed in the bottom left corner of the stream, and when a specific account took the spot called “Chat-is-gay” the chatters took notice and started spamming various words and emotes around the subject.
- Common emote uses in chat:
  - o The emotes used in Forsen's chat could be categorized into two different families. The most common emotes used can be found as images in Appendix A.
    - The first family was Forsen specific emotes. These were various emotes depicting Forsen, or a caricature of Forsen, doing several different actions and reactions. In this family were both the Forsen channel emotes, as well as some related ones through browser extensions. Some common emotes adhering to this family were “LULE” (variation on a classic emote “LULW”), “Copesen” (variation of “Copium”, a character inhaling gas, representing denial) and “forsenPls” (a GIF of Forsen dancing).
    - The second type of emotes could be categorized as Pepe emotes. These were various emotes depicting Pepe the Frog, a cartoon frog often associated with Twitch's community. Pepe emotes could be found both in Forsen's channel emotes, but are more widely known to be part of the various browser extensions. Pepe is widely used by many communities, including variations, altering certain aspects of the character to produce another. Common emotes depicting Pepe and Pepe variants were “monkaS” (depiction of regular Pepe sweating of fear),

“PepePains” (Regular Pepe Cringing) and “Pepega” (popular variation of Pepe with a misshaped head representing stupidity).

- The chat’s reaction to people breaking rules:
  - The only instance of someone making an active statement over an explicit rule being broken was when some chatters highlighted the fact that Forsen was using a derogatory term to describe his teammates in a negative way. This was portrayed by them typing out the emote “monkaTOS”, which is a visual representation of fear over breaking the Twitch TOS, which does state that it considers harassment of disabilities as “hateful conduct” (Twitch Interactive, Inc., 2022).
- Moderation of chat by moderators and/or moderation chat bots:
  - During the recorded period, automatic time-outs could be found in Forsen’s chat. If a user were to send a specific type of spam, called a copy pasta (in this case, mostly walls of texts clogging up the chat, not adding any value to the chatting experience), a bot would take notice, delete the message, and time out the viewer for different amounts of time, depending on number of previous time-outs. The first time-out a user would get would take away their ability to type in chat for the next 30 seconds.
- Moderation of chat by the streamer and streamer reactions to people breaking explicit/implicit rules:
  - At no point during the recorded time frame did Forsen ever moderate his own chat. He neither entered it manually and deleted messages/banned users, nor did he enforce any of his explicit rules stated.

## **5 Discussion**

The research discusses interpretations of the gathered results, through our lens as investigators of the Social Contracts. The mentioned theories connect each Social Contract to the research problem at hand. Finally, the Social Contracts were compared and an analysis on the differences and similarities between the way each community facilitates their social etiquettes was presented.

### **5.1 xQcOW’s Social Contract**

According to the observations, xQcOW’s broadcast is highly interactive when it comes to the relationship between the streamer and the viewers. The streamer’s constant interaction with the audience correlates with the high number of reactions and responses in the chat, as by



constantly interacting with viewers, xQcOW encourages the chat to be more active and alert. Also, during the observed session, xQcOW played two competitive racing games, which motivated chatters to comment directly on the high paced gameplay. The competitive nature of the games played brought forth behaviors that displayed applications of explicit and implicit rules, characterizing the overall nature of the community.

### **5.1.1 Explicit Rules**

The explicit rules on xQcOW's broadcast include the Twitch Terms of Service that each Twitch user agrees to when they create an account on the website, as well as some clarifying chat rules: "english please" and "fresh memes". What stands out in the chat rules is the request for "fresh memes" in chat, as it is more vague and open to interpretation. This is an official request from the streamer for the community to stay humorous and lighthearted. Moreover, this attitude decreases the level of seriousness applied in the chat rules, implying that if one breaks them, the punishment is probably not that big. This is supported by the fact that during the observed session, if a person broke the "english please" rule, their message would simply get deleted.

Surprisingly, despite the large pool of active people in chat, there was no indication that Twitch TOS rules were broken by anyone, nor were they addressed by the streamer or the chat. It cannot be concluded with certainty if this is an indication of strict censoring and moderation behind the scenes, which an average viewer cannot observe by simply watching the broadcast. However, one can observe that the Twitch TOS is not a main focus of the broadcast during gameplay.

### **5.1.2 Implicit Rules**

The unwritten nuances of xQcOW's Social Contract are defined through the social dynamics that emerged during the broadcast. These rules were generally reinforced by the streamer's behavior and reactions to certain phenomena, which was then mirrored by the chat, as they followed his example.

One of the most prominent characteristics of xQcOW's community is the fact that a big portion of the interactions can be defined as banter - friendly exchanges where the streamer and the viewers tease each other frequently. This type of behavior includes expressing doubt in the streamer's abilities to play the game, making fun of the streamer for performing badly in-game, calling the streamer names, swearing, sarcastic usage of emotes, dismissing donation messages that demand things from the streamer or donations that are being ignored by the streamer. Thus, due to the frequency of this banter, we defined an implicit rule in xQcOW's social contract, where in order to participate in a big portion of the stream interactions, one must agree to participate in the banter with both the streamer and chat itself. In order to do that, the viewer must learn the community's humor and how it is applied in the context of the games played. Moreover, one is allowed to call people names like "moron", "idiot", or "bitch", in the context of the gameplay, especially if the streamer is using similar language. This rule is reinforced by the streamer, as they participated in the banter as an equal member of the community. However, there are certain lines that these interactions do not cross. For example, using terms that break Twitch TOS on hateful conduct is prohibited, as it breaks the website's explicit rules and removes the user's rights to use the Twitch services.

Maintaining a cooperative environment is a greatly valued rule in xQcOW's community. Although the observations show a frequency of people throwing random incorrect information at the streamer, characterized as "trolling" by xQcOW, when he asks for help with the game that he is playing, the streamer mostly acknowledges genuine useful responses in chat. There was a similar trend observed in donation messages, as it was frequently used as a genuine tool for direct communication with the streamer. xQcOW's frequent reactions to such messages encouraged people to give up their individual desires for attention, and instead participate as a cooperative member of the community. Surprisingly, despite the large number of active people in chat, the frequent banter, and spam, chatters still successfully used chat as a genuine form of communication both with the streamer and other chatters, especially when the conversation was directly connected to the broadcast. For example, chatters asking for the names of the songs being played on stream would get responses from other chatters. Thus, the high value of cooperation and order overthrows the desire to "troll" and cause chaos.

Similarly, positive attitude and support is greatly accepted and chatters are encouraged to participate in positive reinforcements of the streamer. xQcOW often celebrated his success in the games by screaming and cheering, which encouraged people to praise his performance and join in on the celebration. However, even if the streamer does not lead by example and does not acknowledge positive and kind messages, the community's immediate response is still supportive. This indicates that even without the streamer's direct influence, the audience has a common sense of kindness and acceptance.

Spamming through donation messages is frowned upon. The breaking of this rule caused a sharp response from xQcOW of him demanding for spam donations to be censored by his moderation team. Evidently, spamming in donation messages interrupts their main observed purpose - a source of entertainment and cooperation, especially since they are used as a tool for direct communication with the streamer.

Complaining about the game being played on stream is also frowned upon. When a single chatter demanded a different game to be played, the streamer completely rejected the demand and angrily expressed his frustration with the suggestion. This reaction was the most animated and prominent response to a message, observed during the session. It is important that in this case the broken rule is not explicit. This is not a bannable offense, but it is a rule enforced by the social pressure of being individually singled out and angrily confronted by the streamer.

One must understand the emote use language in xQcOW's chat, because it is one of the main forms of communication in almost all types of interactions. Understanding the nuances of emote usage is greatly valued, as it is a necessary part of banter, inside jokes, and an overall part of the viewers immersion in the broadcast. Infact, people who misuse emotes are observed to be publicly accused.

At the same time, an important part of xQcOW's stream is the chatter's right to express their opinion on the broadcast and have a say in certain games where the audience can directly participate. One is allowed to disagree with the way interactive features of the broadcast, like Channel Point Predictions, are implemented by the streamer. When the streamer asks the chat for their opinion on the predictions system and receives responses, he prompts his moderation team to make the necessary adjustments. The stance of the majority of chatters is greatly valued and the streamer's behavior conveys that they want to satisfy the most common opinions.

### **5.1.3 Connections to Philosophers**

In xQcOW's community Social Contract exists to suppress the Hobbesian State of Nature, in this case, characterized as people's individual desire for attention and chaos. There is a parallel between the Hobbesian theory on laws and the application of Twitch TOS on xQcOW's channel (Laskar, 2013). The TOS exists as a moral guide to what is right and what is wrong to say during the broadcast and it draws a line between hateful interactions and friendly banter. However, unlike in Hobbes' theory, in this case the written rules are not the main focus and do not have the greatest value when it comes to successful social interactions. In fact, implicit rules seem to be highly valued by both xQcOW and the audience, as they are the ones who create complex social situations. xQcOW's Social Contract is built around entertainment and cooperation. That is why it is defined as a combination between the Lockian and the Rousseauvian Social Contract. xQcOW's Social Contract is enforced through both democratic decisions and social pressure. As described by Locke, rules exist to protect the property of the members of society (Laskar, 2013). In this case, the property that users preserve is their identity in the community, as a participant of the chat and the broadcast's social dynamics. Moreover, xQcOW's contract is comparable to Rousseau's take on General Will to prioritize the good of the public, instead of the minority, in order to benefit from society (Laskar, 2013). In a greatly active chat like xQcOW's, when chatters obey the Social Contract, they gain the opportunity to have direct interactions with the streamer, enjoy cooperative exchanges and the entertainment that comes with them.

## **5.2 CohhCarnage's Social Contract**

CohhCarnage's community is best characterized by his channel point logo, which doubles as one of his emotes "cohhGV", displaying a highlighted text reading "Good Vibes". It is evident that Cohh's chat is a calmer and more personal one than many others. Seeing the high level of interactivity between Cohh, his chat and its users, constantly reinforcing positive messages with a light tone. Cohh encourages this behavior by reading out actual questions and highlighting positive interactions occurring. By also engaging chat in the game played, by asking questions about thoughts and opinions, he keeps his viewers focused on what is going on. This, however, does not stop messages about unrelated topics, but Cohh chooses to engage in those as well, seemingly to make his chatters feel welcome.

### **5.2.1 Explicit Rules**

Outside of the previously mentioned Twitch Terms of Service (TOS) CohhCarnage's stream consists of two different types of channel specific rules that dictate what users may or may not do. The more visible rules, those being the ones having to be accepted when entering chat for the first time, are ones explaining what Cohh's community is about. A good vibes community that loves helpfulness, interaction and being respectful. This initial display of what viewers can come to expect in the chat works well, as it can let new chatters quickly gauge if Cohh's community is one for them without having to watch for a prolonged period. It also gives the viewers a good idea of what types of interactions they can expect from the stream, incentivizing a positive communication between all parties. It can be seen in the recorded data that chat almost always follows these looser guidelines but seeing as no user is banned or timed-out, it is hard to say what is considered a breakage of the rules.

However, a more unique law is present in the CohhCarnage community, with the existence of the “Cohhilation”, a CohhCarnage specific forum with an extended rules section regarding itself and the streams chat. On the website there are 16 rules in total, with some examples being that the chat’s language should be clean and safe for work (no swears, slurs), be respectful of others and their opinions as well as to not spam anything, be that texts, emotes or commands (Rynea, 2015). This page is not as visible as the previously mentioned rules, but it can be reached with one of the banners below the stream. These rules are more specific, and even without users breaking them a good understanding of what is bannable or not is present. It is hard to gauge how many of the community members have actually seen this page, but as mentioned no rules were broken to the extent of a moderator having to intervene, so some semblance of awareness seems to exist from chatters. It is hard to tell if this is due to previously heavy moderation on the stream, or a general consensus from new viewers on how to act.

### **5.2.2 Implicit Rules**

Seeing how CohhCarnage has a multitude of detailed explicit rules, more so than any other streamer being analyzed as part of this paper, it is harder to fully categorize his implicit rules unique enough to be separated from the explicit ones. Some can still be found, however, by viewing the interactions that take place between the stream’s parties.

As Cohh engaged chat to interact, a participation of sorts occurred from the chatters present. Many started to engage themselves as active participants in the gameplay being broadcasted. This would include pointing out missed objectives, democratic decision making and roleplay of a character in-game named after chat itself. None of this was mocked nor looked down upon by any viewer but was more so encouraged by both Cohh and the community, which could be seen with the constant back and forth occurring mid gameplay. Having Cohh succeed, with chat feeling like they succeeded in turn as well was a common occurrence. Chat would, however, disassociate themselves with this experience when they thought Cohh was acting ridiculous e.g., when he died several times in the same location, blaming the game’s mechanics.

This points towards a widespread belief of these interactions being positive to the chatting experience. What further motivates this is the fact that whenever a chatter pointed out a dissent with the way chat engages themselves, like when one user expressed that chat was useless (either sarcastically or not), they would be met with “D:” spam from others signifying a shock and disagreement from a majority of chat. This belief of what benefits the majority can be connected to Rousseau's philosophy, where “the society” of chat drove them via humanities “general will” towards a social structure that prioritizes the majority over the minority and the individual (Laskar, 2013, p.6).

### **5.2.3 Connections to Philosophers**

With the presence of the high number of rules being applied in chat, a Hobbesian approach might be active in Cohh’s community. As Cohh and his chatters desired this orderly “good vibes” community, they would have formed the streams Social Contract with a heavy emphasis on the platforms law, both the Twitch TOS as well as the Cohhilation acting as

rulebooks. Without actually knowing the number of banned users in Cohh's chat, it is hard to form a solid conclusion, but due to the observed behavior of Cohh's community and the activeness of mods in chat during the recorded period, it is safe to say that the community might lean toward the Hobbian approach. This approach dictates who may participate, in the sense that as long as these prerequisites are followed, you are allowed to enter and remain in the community. With the Hobbesian values of law, as well as the prioritization of the majority over the minority that can be found in the Rousseauvian philosophy, this indicates a community that accepts and embraces the safety and order that comes with extensive applications of laws to better the chatting experience of its core majority audience and its "rulers" (Cohh and mods).

One interesting observation is the fact that CohhCarnage's community values the same characteristics as Locke's "Golden Age", those being peace, compassion, mutual cooperation and preservation (Laskar, 2013, p.3). This is noteworthy as Cohh's community is otherwise contradicting with Locke's philosophy. As this interpretation reads, Cohh's community greatly values its rules and their enforcement, which runs opposite to Locke's de-emphasis of those aspects. Why man enters the Social Contract falls more in line between the two, but as can be seen on all present versions of the theory, man gives up certain freedoms to secure their welfare, so this observation falls flatter than the similarities and differences of other values.

### **5.3 39daph's Social Contract**

39daph's has facilitated a well-behaved and welcoming community where one, regardless of their experience with Twitch, can participate in interesting exchanges with both the streamer and the chat. The data showcases a high level of responsiveness from the streamer to messages in chat and subscriptions. The lower number of people typing in chat accompanies the generally positive and calm mood of her broadcast, and also makes it easier for people to get responses to their messages. The broadcast is centered around 39daph herself, her behavior during gameplay and her character overall. The games played serve as a background to discussions about topics, often outside of the gaming space.

#### **5.3.1 Explicit Rules**

The explicit rules on 39daph's channel include the Twitch TOS, as well as some specific chat rules clarifying what kind of interactions chatters may have with the streamer. As seen in the results, these chat rules revolve around concepts that might annoy the streamer or create a weird dynamic between chatters. For example, the fact that "panhandlers" are prohibited means that people are not allowed to beg for money in chat, therefore, pressure people to gift them subscriptions.

No explicit rules were broken during the observed broadcast, nor did people talk about them. Because of the rarity of explicit rule breaking, the streamer prefers to limit the discussion on the topic, evidently, to avoid unnecessary attention to negative interactions.

### 5.3.2 Implicit Rules

The unwritten rules in 39daph's channel emerge from the social interactions between people that participate in the broadcast. Their reactions to different behavior, as well as the frequency of these reactions help one define the nature of these rules and how they are applied. Most of the time the rules are reinforced by chat's behavior, rather than an authoritative figure, like the streamer and the moderators. Therefore, the application of the implicit rules involves a certain level of trust from the streamer in the viewers' will to behave well and preserve the peace in the community.

One of the most prominent aspects of 39daph's Social Contract is the fact that chatters are allowed to freely express themselves in the chat, even if they are not referring to the broadcast directly. As people in chat tend to hold conversations with each other about other games, streamers and movies, the streamer encourages this behavior by occasionally joining in on the discussions. People in the community are allowed to express their opinions freely, as long as they are not breaking the explicit rules of the channel.

The emote language of the channel must be learned, in order to understand the meaning of chatters' responses to the broadcast. As a large portion of the emotes used during the broadcast are custom 39daph variations of emotes, one must familiarize themselves with the meaning of each picture, in order to fully grasp the dynamics that occur in chat.

In order to successfully participate in a big portion of the interactions between the chat and the stream, one must agree to partake in banter. This is observed in the context of the game being played and is characterized as humorous, lighthearted ridiculing of the streamer's gameplay and behavior. As it is usually done through emotes, it combines the understanding of the channel's emote language as well. Moreover, surprisingly, even when the streamer is discussing serious topics while playing, one is allowed to still tease the streamer through emotes. This behavior is reinforced by the streamer. As seen in an instance when 39daph discussed a dark moment of her life, she finished the story with a rather sarcastic and humorous remark. This way she teaches through her own behavior, that it is acceptable to incorporate a certain level of humor in serious situations.

Cooperative behavior is encouraged by both the streamer and the chat. Although there is a good portion of viewers who enjoy jokingly confusing the streamer, when 39daph asks chat questions about the game that she is playing, the chatters who genuinely help out are noticed. Chatters are allowed to suggest ways in which the streamer can improve their gameplay and, in fact, when their suggestions are good, they are praised by the streamer for their assistance. In response the chat also joins in on the positive reaction to chatters who offer help with the game. This leads to the idea that cooperative behavior is greatly valued by the community.

Overall positive attitudes are a part of the chat etiquette. For example, in instances when the music in the game being played became more prominent, chatters would use emotes, GIFs of dancing characters, in the chat, which lightened up the mood of the broadcast overall. Moreover, there is a trend in people announcing their arrival to the broadcast, as they greet the chat, while other chatters welcome them in a friendly manner. As observed, this overall welcoming mood of the community is inviting for viewers who are newer to the community, which brings less social pressure for people who want to participate, but are still unfamiliar with the channel's Social Contract.

Spoilers are frowned upon in 39daph's chat. Although the streamer does not bring great attention to this rule, the chat's reactions to people breaking this rule is more prominent. They

express frustrations and disapproval of people on the broadcast, including the streamer, who spoil the plots of movies. Although the response is generally lighthearted and done through emotes, there is a noticeable negative reaction from the chat when the rule is broken. Thus, this rule is reinforced by the chat's reactions

There are certain limitations to spam in chat. For example, when chatters type gibberish unrelated to the broadcast, their messages get deleted. However, as observed, when the streamer leaves the broadcast to go to the toilet, for example, most of the chat devolves into long spam messages, which greatly contrasts the usual peaceful and readable nature of the chat. Although observed only once during the broadcast, this phenomenon stands out as a contradiction in the chat's previous productive behavior when the streamer is present. This moment in the broadcast is reminiscent of a teacher exiting a classroom, leaving all the students on their own to do as they please, without any authority present. Shortly after, when the streamer comes back, the chat almost immediately reverts back to its natural cooperative and comprehensible state. This moment shows us that intensive spam in 39daph is considered a playful way to misbehave and in certain contexts, it is not moderated. However, it is only a single instance and that is why it does not give us enough information to form solid conclusions about the community that are based on it.

### **5.3.3 Connections to Philosophers**

The observations on the essence of 39daph's Social Contract show that there is a difference between the way its rules are created and the way they are enforced during the broadcast. The explicit rules are based on the streamer's personal desires for order and, potentially, previous negative experiences, which correlates with the Hobbesian theory on the emergence of laws. As stated by Hobbes, the Social Contract guides people away from chaotic behaviors, the State of Nature (Laskar, 2013). In this case, the State of Nature can be described through terms like "panhandlers", "one man spam", where chatters disrupt the peaceful state of the community. However, these rules are usually not enforced through authoritative figures. There was a moment where a certain attitude toward authority could be seen, when 39daph left the stream for a moment and chat misbehaved, however, this single instance is not enough to draw conclusions about the chat's thoughts on authority. Also, although there are automated bots in chat that remind people of the written rules, the streamer herself or the moderators do not deliberately address or enforce the explicit rules. This puts the enforcement of the Social Contract closer to the Lockian perspective on authority, rather than the Hobbesian. Moreover, the implicit rules in 39daph's community allude to a cooperative and compassionate dynamic between people, reminiscent of Locke's theory on the State of Nature, the "Golden Age" (Laskar, 2013, p.3-4). There is a certain level of freedom that chatters have, when it comes to expressing that State of Nature. However, as theorized by Locke, laws exist as a form of security for people's individual property (Laskar, 2013), thus, when property like money, for example, is at stake, people are to oblige the explicit rules stated by the streamer.

### **5.4 Forsen's Social Contract**

Positive interactions in Forsen's chat, both those between Forsen and chat, as well as the chat itself, are few and far between. The relationship between all parts seem to point towards a relationship where to be heard, you need to be the loudest or the most provocative. This could be seen with the constant negative reinforcement from chat towards Forsen's gameplay, users'

tendencies to ridicule fellow chatters, as well as Forsen almost exclusively choosing to highlight these comments over positive ones. So, through the streamers lack of moderation, chat cries out for attention and is let loose to act completely on its own. The only moderation observed is after all the automatic ones, removing clutter from the chat, as well as banning those uttering specific predefined words or phrases (rules, no racism). This should be taken with a grain of salt, as Forsen is playing a competitive game. Were he to play something in a single player setting, chat might have behaved differently towards his actions in-game, but no such situations were observed.

#### **5.4.1 Explicit Rules**

Often, the explicit rules of Forsen's stream are not applied. As can be seen with the various spams from chatters about his teammates gender, nationality, and religion, it can be argued that Forsen's chat is breaking a part of the Twitch TOS under the hateful conduct section, where it states that "hateful conduct is any content or activity that promotes, encourages, or facilitates discrimination, denigration, objectification, harassment, or violence" (Twitch Interactive, Inc., 2022). With the lack of moderation, as well as the lack of denouncing these ridiculing comments from Forsen himself, chat is free to react any way they want without repercussions. Users who may not find these actions acceptable are free to leave, while Forsen continues to build a community that is desensitized to this notion, and most likely encourages it.

#### **5.4.2 Implicit Rules**

Forsen's implicit rules seem to be mostly focused on non-conformity towards the unique chat experience. If users try to break away from the "ordinary" style of non-specific spamming, others may call them out for this by making fun of them. This can be seen in the second type of Forsen chatter interactions, where oppositions are engaged after a non-tolerated message was sent. In the xQcOW emote case, the streamer is mocked, and anyone using the emote is told by chatters to "get out". Via the usage of the emote, users also reveal that they are subscribed to xQcOW and can be ridiculed for that as well. This pushback often happens with what could be described as "normalized emotes", extremely common emotes used on Twitch's many communities, being spammed. Forsen's viewers might see the stream as their own bubble, and that the wider influence of Twitch invades them from time to time. The pushback would make sense then as a detractor to those who wish to visit the stream and engage in chat by using previously gained knowledge on Twitch. As a viewer, one has to come to learn or re-learn the chatting experience through the lens of Forsen's stream, if one wishes to interact.

However, Forsen's chat has come to expect this type of environment from the stream. Subscriptions and gifted subscriptions were happening at a similar pace as CohlhCarnage, who had a similar viewer count to Forsen. This points towards Forsen's community still being sought after by certain users who look for an alternative to more uncensored and "free" platforms to interact through.



### **5.4.3 Connections to Philosophers**

This would make Forsen's community lean towards one of Lockian influence, with a de-emphasis on the authoritarian aspects of the Social Contract (Carpenter, Slauson & Snyder, 2006). Forsen's chat can be compared to the Lockian State of Nature, where each man can choose to act on his own accord. Where Forsen's chat differs from this is the "Golden Age" Locke presents, as it seems to lack the level of compassion, peace, and mutual cooperation presented in his theory (Laskar, 2013, p.3). This comparison might not be worth making, however, as none of Twitch's communities can never be in a State of Nature, as the platform has its own rules and regulations (Twitch TOS) that each user must follow to participate in the platform.

With this in mind, it can be argued that Forsen's community falls into the Lockian approach to the Social Contract theory more so than any other philosopher. His chat is opposed to the enforcement of Hobbes rules and laws, going so far as to deem those that uphold it as trespassers. Forsen's chat would not surrender their perceived individual freedom towards a so-called "moral guide" that Hobbes argues for. With this non-conformity towards the remainder of Twitch, it can also be argued that the community disagrees with Rousseau's "general will", since people prioritize themselves (the minority) over the rest of Twitch (the majority). They want to believe that they are in the State of Nature, but they realize that due to Twitch giving them a platform in the first place, they will never have the true freedom of a lawless platform. This initial payment of freedom, which gives them a community in the first place, can be related to Locke's theory of property, where man will enter the Social Contract for their personal welfare. In this case, this is the right to discover, watch, and interact with Forsen and his community in the first place. How Forsen's chat would interact and develop in a State of Nature would be interesting. Seeing if a "Golden Age" could spring from the community, and if its toxicity would remain or dissipate.

### **5.5 Comparison of the Streamers' Social Contracts**

All of the observed broadcasts demonstrate a level of conformity toward rules, where the State of Nature is diminished, so that people can enjoy the provided entertainment and participate in complex social exchanges. As mentioned before, all of the discussed channels share the Twitch TOS as explicit rules, because in order to use the platform both the streamers and the chatters must conform to the website's terms. However, there is a difference in the degree to which these rules are applied and valued. This makes some streams more strict than others, when it comes to the way people regulate their behavior.

Only one of the four channels, CohhCarnage, demonstrates prioritization of explicit rules and great value in their application, which aligns with the Hobbesian theory. In order to maintain the peaceful mood of the stream, Cohh's rules are the most detailed and elaborate from all of the observed communities. His channel also stands out as the one with the most positive attitude and wholesome dynamics between the streamer and the chat. Whether or not there is a direct correlation between the extensive rules and the well-behaved community cannot be concluded because no rule enforcement was observed. However, it is important to note down that his stream is the most strict when it comes to regulating social etiquette.

Another Social Contract that stands out from the rest is the one facilitated in Forsen's community. His chat is the only one from the four observed chats that devalues the Twitch TOS in a prominent way. It is interesting to see that although the chatters' behavior might

breakTwitch TOS, Forsen's Social Contract allows it, as it is not moderated or addressed during the broadcast. Thus, there is a certain level of allowed State of Nature, as viewers do not completely give away their personal desire and do not follow the rules, which are considered, in other chats, as a general guide for social etiquette.

Every one of the described social contracts and the way that they are applied reflect a different aspect from each mentioned philosophical theory. For example, there are two main ways in which Rousseau's perspective is connected to the way the streamers decide to moderate their communities. xQcOW prioritizes the wellbeing of the majority and regulates the broadcast in a less authoritative manner, as his relationship with the chat involves a certain amount of trust. Although there is a similar trust-based dynamic in 39daph's community, a phenomenon that contrasts the Rousseovian perspective occurs, where her explicit rules are based on her personal experiences and not so much on the majority's opinions. On the other hand, all channels either reflect or diverge from Hobbes' theory in three main ways: their value of explicit rules as a moral guide, the level of enforcement of these rules, and the level at which they reject the State of Nature. In channels like xQcOW, although the explicit rules are not a main focus and do not seem to be of particular importance to most of the social interactions, they do serve as a general guide that draws the line between right and wrong. However, in Forsen's chat there seems to be a rejection of laws as conductors of social boundaries and a higher tolerance for behavior that is reminiscent of the Hobbesian State of Nature. The community sets its own boundaries and creates a niche space, contradicting the usual social etiquette. Finally, all of the observed channels in this paper fall under an aspect of the Lockian theory. All Social Contracts exhibit cooperative aspects. Although some are less compassionate than others, most of them are oriented toward the preservation of people's property and rights to participate in the community and benefit from following the rules - having the ability to freely enjoy an interactive piece of entertainment.

Additionally, in order to further categorize the reasoning behind the observed behaviors, they are compared to Gauthier's classification of outcome-based decisions. It is interesting to note that there are no observed moments that fall under type three situations, where the outcomes that are satisfactory are not stable. In those types of situations the viewers would not agree to act upon common principles, because their own individual decisions would be more satisfactory. Seemingly, these types of situations contradict the cooperative nature of the observed streams. However, there are moments that share characteristics with type one situations, where participants agree to compromise with any type of principle, as long as there are no parties that are strongly against the outcome (Gauthier, 1977). For example, in Forsen's community this type of situation is, in fact, fabricated and facilitated by the bubble that the community surrounds itself with. People who disagree with the outcomes of the social interactions are shunned from the community. This creates a space where there are no parties who strongly disagree and most of the time the outcomes are optimal for the members inside the social bubble. Type two situations, on the other hand, is comparable to xQcOW's approach on polarizing concepts in his chat. For example, interactive features, like the mentioned point predictions, the audience literally bets their points against each other, competing with people who strongly disagree with them. As explained by Gauthier, in these situations the streamer bargains with both sides, implements different types of betting systems, in order to avoid conflict and maintain a stable social environment (Gauthier, 1977).

An inexperienced viewer may approach each of the stated Social Contracts with two main factors in mind: the Twitch TOS and the emote language used in each stream. These are a must when it comes to understanding how the community engages in both serious and humorous exchanges. However, in order to truly immerse themselves in the broadcast, one

must pay attention to the reason why all of the rules exist, both explicit and implicit, and how big the punishment is when one breaks those rules. Moreover, one must understand why the rules are valued or not in each community, how breaking the rules affects the stream. When one familiarizes themselves with the Social Contract of each community, one can not only learn to properly behave in each setting, but also learn about who the streamer is as a person, since the contract is an indirect reflection of their social boundaries. As seen in this study, each streamer builds a complex relationship with their audience which results in nuanced social etiquettes. However, the chat itself has an influence on the broadcast too. That is why once the viewer successfully utilizes the Social Contract they become a part of the culture and have the power to influence its essence.

## **6 Conclusion**

The selected variety streamers facilitate unique Social Contracts that fall within the philosophical perspectives of Hobbes, Locke, Rousseau, while the observed interactions can be explained through Gauthier's take on situational behaviors. Only one of the streams, CohhCarnage, is defined through the Hobbesian perspective on authority as a highly valued guide for behavior. Only one of the streams, xQcOW, shows characteristics that parallel the Roussevian perspective, as the focus of the community is the majority, rather than the minority. One of the streams, Forsen, rejects explicit rules as moral guides, Hobbes' views on laws and authority. Finally, all four of the streams' Social Contracts demonstrate some characteristics of the Lockian theory, specifically with their focus on cooperation and protection of property.

The data presented throughout this thesis gives information on how these streamers facilitate unique Social Contracts in their chats and communities, whether they are fully aware of it or not. Categorizing interactions after a preset list is helpful with paraphrasing and communicating their intents as well as aiding the research in the process of communicating thoughts and ideas in a more linear way. The streams facilitate different levels of explicit and implicit rule authorization, the degrees of importance put towards the rules themselves, each community's conformity towards the laws in place, how much the majority is prioritized over the minority and each chat unique and differing languages. Putting all these pieces together, a picture starts to form, which is viewed both separately and in whole through the different Social Contract theories. This gives a greater understanding on how Social Contract can be applied to social media platforms, more specifically online chat rooms directly communicating with the broadcast itself, being able to interact and affect it with varying degrees. The data can also be used to view the growth of modern online communities through the lens of an inexperienced participant, by showing the first impressions and unbiased look into these complex social structures.

The application of the Social Contract gives a good foundation for the eventual framework. By gaining a greater understanding of communities and society one can apply classic philosophy to a modern space. The applications of Hobbes, Locke, and Rousseau have proven how philosophical perspectives apply to the complex relationships that emerge in online spaces like Twitch. By comparing each stream's happenings and patterns in their social structures and categorizing them, this study has introduced, explained and applied each of the philosophies to the various findings presented. This, together with the application of Gauthier's use of the Social Contract as an ideology, gives a better understanding of the

relationships at play on Twitch. By using this thesis as a background, one can see and understand the importance of the Social Contract while viewing online communities and see that they have a wider field of application than just our classic definition of a society. Understanding their complexities, dynamics and unique platform one can reflect on them in a nuanced way. By comparing online communities to cities, states and governments one can reflect on them in a previously unknown way.

The non-participatory netnographic approach for this research has been a successful method, through which one can observe the nature of the broadcasts' Social Contracts. This research extracts qualitative data about each streamer and their audience, that gives us a glimpse into their social worlds. In the grand scheme of things, a rather short amount of time was spent with each community. Nevertheless, the observations give enough data to be able to define each Social Contract and not only compare them to each other, but also place them in the context of the platform as a whole. The fact that we as researchers did not participate in the communities throughout the observations, gave unbiased results. It was important to make sure that the planned framework would give enough detailed information, about the broadcast as a whole, and help avoid selective observations. Moreover, the ethical limitations of the netnographic approach were not detrimental to the results of the study, as they did not have influence on the answer to the research question. The fact that the observation was conducted online, candidly, without any big additional preparations, shows that this netnographic method is quite accessible from any part of the world, as long as the researchers have access to good internet connection. That is why this style of research is good for remote work and researchers who do not have a lot of previous experience with field work.








Live streaming broadcasts on Twitch facilitate different social spaces in order to bring together people with common interests and characteristics that match the environment and contribute to the community. The cooperative nature of online societies extends to the way that people interact with each other, just as much as the way that they interact with the content that they enjoy most, the entertainer and the games. As a social leader, each streamer applies their own ideologies, both directly and indirectly through other valued members of the community. We see that the Social Contracts are just as nuanced and complex as human behavior itself. By adapting to the Social Contract that each community has built, one adopts characteristics of Twitch culture into their own online personality. As the biggest online gaming platform, Twitch brings together people with similar preferences who can work together to create a place where they are appreciated. Perhaps this is one of the main forces that drives viewers to participate and master the mechanics of each social contract. The potential for them to climb the social ladder, gives them an opportunity to feel accepted and grow as a valued member of society, much like the streamers that they enjoy watching. Although Twitch is widely popular, the complexity of each broadcast creates a niche of its own. An inexperienced Twitch viewer might tune in for the interactive entertainment that each broadcast provides, but they stay to be a part of modern online culture itself, so they can say that they were there in chat, when it all happened.









## 7 References

- Bowler, G. M. (2010). Netnography: A Method Specifically Designed to Study Cultures and Communities Online. *The Qualitative Report*, 15(5), 1270-1275.  
<https://doi.org/10.46743/2160-3715/2010.1341>
- Brewer, J. D. (2000). *Ethnography* (1st ed.). Open University Press.  
[https://books.google.se/books?hl=en&lr=&id=2VrIAAAQBAJ&oi=fnd&pg=PP1&dq=what+is+ethnography+&ots=aH\\_d6f1wua&sig=UrOX\\_wBfL\\_tgW7Uk9PJpfNhaITQ&redir\\_esc=y#v=onepage&q=what%20is%20ethnography&f=false](https://books.google.se/books?hl=en&lr=&id=2VrIAAAQBAJ&oi=fnd&pg=PP1&dq=what+is+ethnography+&ots=aH_d6f1wua&sig=UrOX_wBfL_tgW7Uk9PJpfNhaITQ&redir_esc=y#v=onepage&q=what%20is%20ethnography&f=false)
- Brilovely (2022, March 13). *CohhCarnage*. <https://streamers.fandom.com/wiki/CohhCarnage>
- Carpenter, D., Slauson, G. J., Snyder, J. (2006, November 4). *MySpace.com – A Social Networking Site and Social Contract Theory*. ISECON 2006.  
<http://proc.edsig.org/2006/3333/ISECON.2006.Snyder.pdf>
- DomiTheGamer (2022, May 9). *xQcOW*. <https://youtube.fandom.com/wiki/XQcOW>
- From Clement, J. (2022). *Most popular platform to watch live streams according to gamers in the United States as of February 2021* [Figure 1]. Statista.  
<https://www.statista.com/statistics/1221858/most-popular-livestream-platform-watch-us/>
- From Clement, J. (2022). *Number of hour watched on leading gaming live stream platforms worldwide in 3rd quarter 2021, by platform* [Figure 2]. Statista.  
<https://www.statista.com/statistics/1030795/hours-watched-streamlabs-platform/>
- Ewalt, D. M. (2013, November 13) The ESPN of Video Games. *Forbes*.  
<https://www.forbes.com/sites/davidewalt/2013/11/13/the-espn-of-video-games/?sh=27e0570c3dd7>
- Friend, C. (No Date). *Internet Encyclopedia of Philosophy: Social Contract Theory*. Internet Encyclopedia of Philosophy. <https://iep.utm.edu/soc-cont/#SH2a>
- Gauthier, D. (1977). The Social Contract as Ideology. *Philosophy & Public Affairs*, 6(2), 130-164. <https://www.jstor.org/stable/2264939>
- Grayson, N. (2020, September 9). Among Us' Improbable Rise To The Top Of Twitch. *Kotaku*. <https://www.kotaku.com.au/2020/09/among-us-improbable-rise-to-the-top-of-twitch/>
- Hammersley, M. (2006). Ethnography: problems and prospects. *Ethnography and Education*, 1, 3-14. <https://doi.org/10.1080/17457820500512697>
- Innersloth (2018). *Among Us* [Steam]. Innersloth.
- iRacing.com Motorsport Simulations (2008). *iRacing* [Microsoft Windows]. iRacing.com Motorsport Simulations. <http://iRacing.com>
- Jackbox Games (2020). *The Jackbox Party Pack 7* [Steam]. Jackbox Games.
- Johnson, M. R. & Woodcock, J. (2018). The Impacts of Live Streaming and Twitch.tv on the Video Game Industry. *Media, Culture and Society*.  
<https://doi.org/10.1177/0163443718818363>




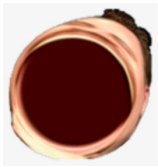




- Kim, E. (2014, August 25). Amazon Buys Twitch For \$970 Million In Cash. *Business Insider*. <https://www.businessinsider.com/amazon-buys-twitch-2014-8?r=US&IR=T>
- Kozinets, R. V. (2020). *Netnography* (3rd ed.). SAGE Publications Ltd.
- From Kozinets, R. V. (2020). *A research ethics process flowchart for netnography* [Figure 3]. *Netnography* (3rd ed.). SAGE Publications Ltd.
- Laskar, M. (2013, April 4). *Summary of Social Contract Theory by Hobbes, Locke and Rousseau*. SSRN. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=241052](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=241052)
- Lukaarda (2022, June 6). *39Daph*. <https://offlinetvandfriends.fandom.com/wiki/39Daph>
- Monolith (2006). *Condemned: Criminal Origins* [Steam]. SEGA.
- Nintendo EAD (2017). *Mario Kart 8 Deluxe* [Nintendo Switch]. Nintendo.
- O'Connor, J. (2020, December 14). The Jackbox Audience Kit For Twitch Makes It Easier For Audiences To Join In. *GameSpot*. <https://www.gamespot.com/articles/the-jackbox-audience-kit-for-twitch-makes-it-easier-for-audiences-to-join-in/1100-6485516/>
- Rynea. (28 February 2015). The Big Cohhilation Information Thread. *The Cohhilation*. <https://www.cohhilation.com/forum/viewtopic.php?f=53&t=10445&p=24257>
- Salminen, J., Gach, N., Kaartemo, V. (2018). Platform as a Social Contract: An Analytical Framework for Studying Social Dynamics in Online Platforms. *Collaborative Value Co-creation in the Platform Economy*, 11, 41-64. [https://doi.org/10.1007/978-981-10-8956-5\\_3](https://doi.org/10.1007/978-981-10-8956-5_3)
- TARO (2022). *KEPLERTH* [Steam]. Gamera Games.
- Twitch (No Date). *Chat Basics*. <https://help.twitch.tv/s/article/chat-basics>
- Twitch (No Date). *How to Subscribe*. <https://help.twitch.tv/s/article/how-to-subscribe>
- Twitch Interactive, Inc. (2022). *Hateful Conduct & Harassment*. [https://safety.twitch.tv/s/article/Harassment?language=en\\_US](https://safety.twitch.tv/s/article/Harassment?language=en_US)
- TwitchTracker (2022, April 18). *TWITCH STATISTICS & CHARTS: Overview*. <https://twitchtracker.com/statistics>
- Unknown Worlds Entertainment (2018). *Subnautica* [Steam]. Unknown Worlds Entertainment.
- Valve (2012). *Counter Strike: Global Offensive* [Steam]. Valve.
- Yaden, J. (2021, March 15). What is Twitch? *Digital Trends*. <https://www.digitaltrends.com/gaming/what-is-twitch/>
- Zeta274 (2020, August 27). *Forsen*. <https://streamers.fandom.com/wiki/Forsen>


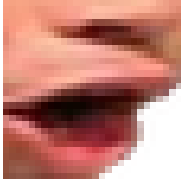




## Appendix A: Twitch Emotes Table

Emote Image	Emote Name	Description
	3Head	Browser extension emote
	Clueless	Browser extension emote
	cohhCheer	Emote in CohhCarnage's channel
	cohhHi	Emote in CohhCarnage's channel
	cohhL	Emote in CohhCarnage's channel
	Copesen	Browser extension emote in Forsen's channel
	D:	Browser extension emote

	DansGame	Global Twitch emote
	daphHey	Emote in 39daph's channel
	daphMoonGun	Browser extension emote in 39daph's channel
	EZ	Browser extension emote
	forsenPls	Browser extension emote
	Jebaited	Global Twitch emote
	KKomrade	Browser extension emote
	LUL	Global Twitch emote



	LULW	Browser extension emote
	monkaTOS	Browser extension emote
	monkaW	Browser extension emote
	OMEGALUL	Browser extension emote
	PagMan	Browser extension emote
	pepeD	Browser extension emote
	Pepega	Browser extension emote
	PepeLaugh	Browser extension emote

	PepePls	Browser extension emote
	Pog	Browser extension emote
	PogChamp	Former global Twitch emote
	xqcL	Emote in xQcOW's channel
	xqcL	Browser extension emote in Forsen's channel
	xqcMald	Browser extension emote in xQcOW's channel