

# Evaluating the Social Media Safety and Privacy of Vtubers - Creating a List of Guidelines for Vtubers to Protect their Safety on Social Media

Binette, Joseph

*School of Computing and Information Science*  
*University of Maine*  
Orono, Maine, United States of America  
joseph.binette@maine.edu

Corlett, Caleb

*School of Computing and Information Science*  
*University of Maine*  
Orono, Maine, United States of America  
caleb.corlett@maine.edu

**Abstract**—VTubers are a relatively new phenomenon in the online space, which have exploded in popularity worldwide since their inception in 2016. They are performers that have moved into the online entertainment landscape, commonly filling the roles of video and livestream content creators. What makes them unique is their usage of face, voice, and body tracking technology to give them a sense of pseudonymity by taking on the appearance of a 2D or 3D character. With this pseudonymity comes unique advantages and challenges associated with how they maintain their privacy, security, and safety. Some of the additional challenges that VTubers might face is an increased number of viewers forming parasocial relationships, and increased harassment due to lowered inhibitions in the face of a virtual avatar. With this idea in mind, we will create a list of guidelines that VTubers can follow to improve their individual privacy, security, and safety on social media sites. These guidelines will be based upon publicly available records of past incidents, current practices within VTuber communities, as well as current research on individual privacy and information security best practices.

**Index Terms**—VTuber, Twitch, Youtube, Privacy, Security, Safety

## I. INTRODUCTION

A VTuber is a content creator that performs over the internet behind a digital avatar, often resembling that of a character similar to those from Japanese anime that mimics their facial expressions and some of their actions. Compared to traditional influencers and content creators, this digital avatar allows VTubers much more privacy, as they can perform without showing their actual face. This unique level of privacy often attracts scrutiny into the VTuber's identity. When using social media, VTubers must take exceptional care to protect their individual privacy and to avoid putting themselves at risk from malicious actors that wish to see the metaphorical man behind the curtain. VTubers, particularly female VTubers, can sometimes experience increased harassment due to parasocial relationships that viewers may form. Turner (2023) notes that a significant portion of her participants encountered said harassment, and it was a source of discomfort for them. [1] Even though the digital avatar VTubers use may be complex and require a degree of digital literacy to utilize, VTubers come from all walks of life and may have backgrounds other than

tech or they just might not have a good grasp on individual privacy or information security enough to protect themselves from malicious actors on the internet. This study aims to use publicly available records of past incidents, current practices within VTuber communities, and the most current research on individual privacy and information security best practices to produce a specialized and easy to understand list of behavioral guidelines for VTubers to follow to improve their individual privacy and information security on social media sites.

### A. Problem Statements This Study Aims to Address

- What privacy requirements do VTubers require?
- What risks to their individual privacy and information security do vtubers face?
- What are some vtuber specific individual privacy and information security challenges that vtubers face on sns?
- What are some behaviors a vtuber can adopt to improve their individual privacy and information security on sns?

### B. Risks of Being a VTuber

Clipping culture is a common practice within VTuber communities where a short segment from a livestream or piece of recorded content is uploaded online, showing off a funny or important moment from a longer piece of a VTuber's content in an easily consumable format that is bingeable and gratifying to watch. Clipping culture allows for VTubers to gain flash-virality (for possibly positive or negative reasons) and with it, attention from a lot of new people who aren't a part of their trusted audience, which may include attention from potential malicious-actors. If a VTuber has a weak grasp on individual security, they could risk the security and safety of themselves, their children, their family, their uninvolved friends, or other VTubers.

### C. Why VTubers?

The reason for choosing VTubers as the target of this study is because of the unique circumstances regarding VTubers and their online privacy. Vtubers, like more traditional influencers and content creators, put on a display of themselves and their

personalities in front of audiences that can reach into the thousands. The digital avatar that VTubers use, however, allow them to perform under an untraditional amount of individual privacy. With this increased privacy comes increased scrutiny from their viewing audience, which may result in a breach of a VTuber's individual privacy caused by malicious actors if a VTuber does not have a solid grasp of individual privacy and information security practices.

#### *D. Significance of a List of Behavioral Guidelines*

The significance of this study is that it will result in an easily understandable and distributable way to inform VTuber and other high privacy, low tech literacy individuals of techniques and behaviors they could use to improve their information security and protect their identities better within the realm of social media. The decision to specialize these guidelines was due to the reason that individual security guidelines are much more effective and widely utilized when they go beyond generic cases [4].

#### *E. Study Approach*

This study will consist of an observational analysis on publicly available information regarding individual cases of breaches of VTubers' privacy and security, an observational analysis on publicly available information regarding widely-used vtubing practices used to protect individual privacy and information security and the reasons behind them, as well as a literature review of the most recent academic articles regarding VTubers, VTuber culture, as well as best practices regarding individual privacy and information security on social media.

#### *F. The Rest of the Paper*

The rest of the paper is structured as follows:

- In Section "Guideline Creation", we will discuss in further detail the process of how we created our behavioral guidelines.
- In Section "Results and Findings", we will briefly summarize the findings from our observational analysis and highlight some of the most important guidelines from our list that would offer the biggest improvements to a vtuber's individual privacy and information security on social media.
- In Section "Discussion", we will discuss challenges and shortcomings of our observational analysis as well as offer suggestions for improvement for anyone else looking to develop a similar list of behavioral guidelines.

## II. LITERATURE REVIEW

### *A. VTubers, Identity, and How It Relates to Privacy*

Despite the relatively short amount of time in which the concept of VTubing has existed, there is a rather remarkable amount of literature regarding VTubers. This literature spans all kinds of perspectives through which the concept of VTubers can be examined, both from a technological, and psychological standpoint. The relationship between a VTuber's pseudonymity and digital privacy was loosely connected at

best in many cases, however. Most closely is the multiple articles that examine how VTubers express and conceal their identity through their models. Byron (2022) and Turner (2022) [1], [2] both separately address this issue. Turner took a direct approach in interviewing 10 self-described VTubers from video streaming platform Twitch. She concluded that VTubing is a way for one to be as they want to be (whether it be their authentic self, an exaggerated self, or a character) without any of the discomfort of revealing their face to the internet. Her approach was good because it allowed for an honest dialogue where the interviewees could share whatever information they would like. Its single largest shortcoming, however, is the sample size of 10, which was cut down from 100 due to general lack of response. Byron's article on the other hand is observational. Much of his research into VTuber identity was focused on the members of Hololive's English team, which he gained insight on simply by watching their streams. Byron addresses how VTubers form their identity in the context of more strict characterization as is mandated for Hololive cast members. He notes that they tend to use techniques such as mystification to make real-world references whilst still staying in character. He also discusses the idea of "forbidden knowledge," that being information that is known about the Hololive casts' real identities. Said forbidden knowledge is commonly banned in Hololive-adjacent communities. Byron's research has the advantage of being contextualized within the sphere of VTuber management, however, it lacks the directness of Turner's research, and is largely more speculative. These articles both contain information about how VTubers protect and project their identities. Identity can be an important aspect of privacy, and while the articles do occasionally bring up more direct privacy issues (such as the above forbidden knowledge), they lack detail about how VTubers can further protect their privacy. In comparison, this article is being made to concretely establish how VTubers can protect their privacy, and that includes aspects of their identity.

### *B. Virality and Harassment*

Clipping culture allows for vtubers to achieve short term virality, a sharp influx of attention from users outside of the usual audience. The attention gained from a viral clip can be positive or negative in nature, with interaction from bigger accounts producing interactions that mirror the sentiment of the bigger account [3]. There are three attributes that are a likely indicator of coming harassment if a viral piece of media is associated with, how these attributes are associated could be as the topic of the viral clip, or as attributes of the featured vtuber. These three attributes are Minorities; Feminism, or any mentality not bound by older, more established values; and opinions and discussion regarding male-dominated fields like politics or sports [3]. If a vtuber is the target of harassment, social media platforms often offer ways for an individual to protect themselves, including blocking, muting, and reporting [3]. If the harassment is more extreme and these methods are not enough to protect an individual, Tonami et al. give a procedure to follow in their case study as a general concept

for how to determine when de-escalation interaction should be attempted and when to reach out to police and seek legal intervention with a harasser "Fig. 1" [3]. Another thing Tonami et al. address is possible actions an individual can try if they represent a company and are unable to employ platforms' self-protection measures due to their position and encourages individuals to reach out to their company and discuss possible actions that the company can take to assist the individual or any compensation that can possibly be provided for any legal fees or other relevant costs [3].

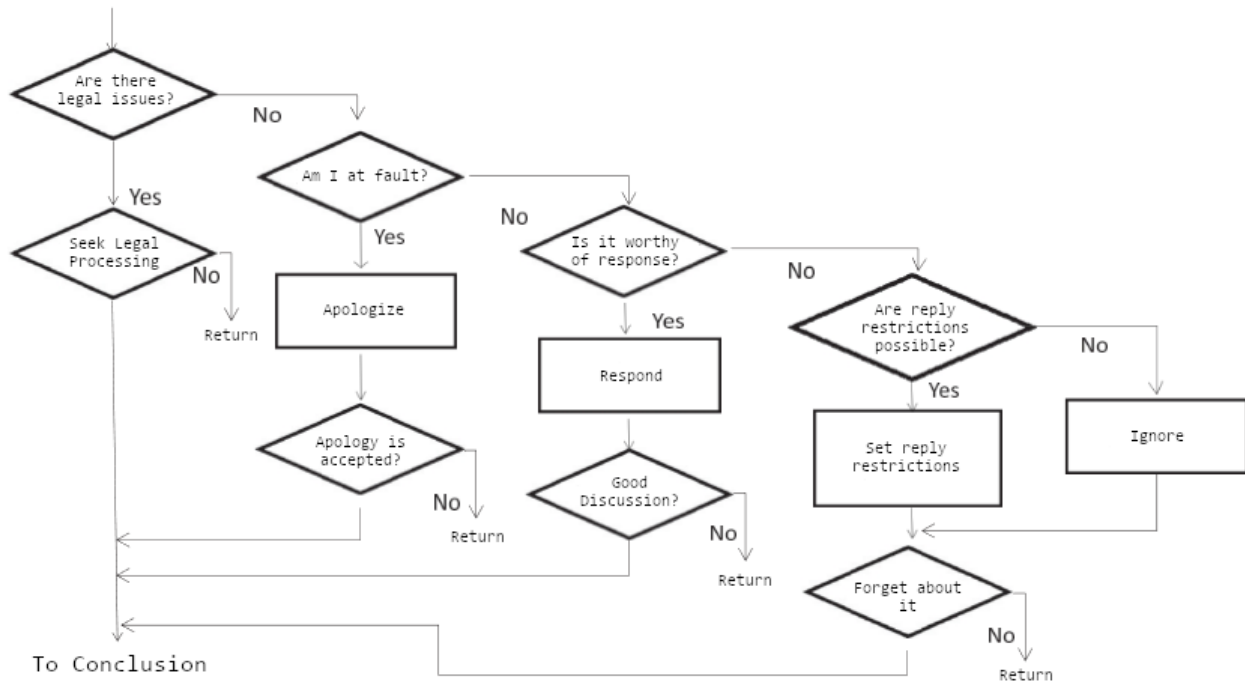


Fig. 1. Tonami et al.'s flow of decision making for dealing with social media harassment [3].

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