Behavioral Science of Online Harassment: Cyber-Microexpressions, Bullying and Stalking on Social Media

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Abstract:

This behavioral science study is an analysis focused on online behaviors and criminology. It is a deep look into to cyber subconsciousness and how it plays huge role in online interactions. Are we conditioned, or is this behavior an extension of our circumstances? The report will outline the thought process and pattern recorded through years of study and observation. Are our clicks our confessions of a digital obsession? This study introduces the concept of cyber-microexpressions as a means to understanding online behavior.

The topics include the science of trolling, passive aggressive expressions, nonverbal communication, celebrity worship, and cyber harassment among other topics. This report delves into the patterns of involuntary subconscious responses to individual's actions and the awareness of social circumstances as they relate to offline behavior. The study examines the marriage between conscious outward social media actions, such as public posts, and subconscious actions, including likes and secondary behaviors, and the overall relationship of these digital footprints which can be linked back to cyber harassment and other crimes.

THE SOCIAL MEDIA AGE

Ever since the personal computer was introduced into the majority of homes in the 1990's, we as a society, have become increasingly reliant on technology. The popularity of the internet, smart phones, and social media have only accelerated this trend in the past 10 to 15 years. The data regarding average screentime and internet addiction is alarming. According to a 2018 Nielsen study, adults spend an average of 11 hours a day interacting with media, which includes screentime, and listening to music (The Nielsen Company, 2018).

Of course, there are benefits to having access to such large amounts of information. This is the information age, where every question can be answered with the click of a button. However, the negative effects of a digital society have not been studied extensively. This report will attempt to delve into some of the adverse effects of the still relatively new realm of the internet.

Social media is unavoidable. Even the heads of state have shown tendencies to overuse such platforms. We live in a world where a large portion of our interactions happen online, and this trend does not seem to be slowing down, with internet addiction becoming a real social threat. Look around at any coffee shop or restaurant, and you will find many people gazing into their phones instead of into the eyes of their friends and loved ones sitting beside them. According to Adam Atler, "What makes Facebook and Instagram so addictive is that every activity you post either does – or doesn't-attract *likes, regrams*, and comments. If one photo turns out to be a dud, there's always next time. It's endlessly renewable because it's as unpredictable as people's lives themselves" (*Irresistible*, pg. 217).

In an extensive 2016 study regarding online behavior, Adeyemi, Abd Razak, and Salleh sum up internet addiction in a nutshell:

> The existence of these tendencies can be attributed to the nature of the Internet, which provides a suitable platform for the integration of domestic, professional, and family life and social desires, as well as for the exhibition of inherent desires. Such a platform presents a paradoxical agent capable of revealing the personality of online users. In other words, the Internet presents an integrated platform for the identification and simplification of the complex human identity.

Because of the internet, and the social phenomena that surrounds it, there are new social issues and new forms of crimes that were nonexistent even as recently as 20 years ago. They include online fraud and scams, cyber terrorism, online sex crimes, cyberstalking and cyberbullying.

ONLINE HARRASSMENT, CYBERBULLYING & CYBERSTALKING

One of the most common forms of internet crimes is online harassment. Unfortunately, the trends are showing that this type of behavior is on the rise (Citron, pg. 12). It can

take shape in a variety of related methods: trolling, cyberbullying and cyberstalking. Unfortunately, the nature and anonymity of the world wide web make these forms of crime all to easy for perpetrators. If an unsuspecting individual creates a social media page, anyone in the world can potentially harass them online. The chances of some sort of unwanted negative attention are a lot higher than they should be for undeserving and unsuspecting internet users.

Online Harassment and Trolling takes places in 3 facets:

Direct Contact: The subject uses various social media apps to contact the victim directly to harass, confront and bother the victim. This may include seeking out the victim on their own pages, emailing them directly, or following them to public websites and forums. Often, the goal is to frighten, control or silence the victim.

Indirect Contact: The subject recruits weaker minded individuals who have a co-dependent need to please the "ring leader". At the request of the primary perpetrator, who tends to be more assertive, but generally suffers from extremely low self-esteem, the secondary criminals proceed to attack the target. The primary perpetrator feels powerful from these actions, adding fuel to their ignorance and often delusional thinking. The sub-subjects are wanting to belong to a group and not be an outsider, as they often see the victim as an "easy target".

Anonymity Contact: The subject hides behind pseudonyms or anonymous 'alt' (short for 'alternative') accounts to terrorize the victim. This not only speaks to the level of cowardice but also the depths of the torture that they wish to inflict. This is not unlike a violent attacker who blindfolds his victims; there is an extra level of heinousness to these sorts of crimes, while often rendering the true perpetrator undetected, and protected from consequences.

Method
Comments or correspondences are sent purposefully to provoke, and often spew outrageous accusations to garner reactions from the target and/or onlookers. This is the root of "trolling." The more absurd the claims the higher probability that they will receive a response; and they understand this concept well. They often aim for a negative response, from which they can then pose as the victim because the target reacted normally to abnormal behavior. These accusations and assertions are presented without fact or empathy by the attacker, simply to evoke an emotion to achieve a result. Other attackers who engage in cyber-stalking follow the victim's activity online to gain information. There are various motives of cyber stalkers: some attempt to invoke fear to gain control, others have intent on physical stalking as well to inflict harm on the victim.

THE MINDS OF INTERNET CRIMINALS

There is often a direct link between online harassers and narcissistic or psychotic behavior and other forms of mental illness. These individuals often lack the ability to empathize with others, as often attacks can become relentless. According to J.A. Hitchcock, "Cyberbullies also often have trouble controlling their emotions and impulses and find it hard to follow rules." Just like criminals in the real world, people who engage in criminal activities online often think differently than most individuals. They have different thought patterns that allow them to participate in such activities. These actions allow them to feel dominant, and they may feel a sense of release, vindication and pride. (Holt, pg.179)

It is important to understand how the brain works in reference to predatory internet behaviors. The neocortex makes up the thoughts of the human mind, as well as responses, which translate into emotions such as guilt, pain, anger and love. The part of the brain which then translates our ideas and thoughts into feelings and emotions is known as the limbic system. Most humans react similarly with regards to such emotions, however a study by University of Wisconsin researchers "showed that psychopaths have reduced connections between the ventromedial prefrontal cortex (vmPFC), the part of the brain responsible for sentiments such as empathy and guilt, and the amygdala, which mediates fear and anxiety," and "showed that psychopaths' decision-making mirrors that of patients with known damage to their ventromedial prefrontal cortex (vmPFC)" (University of Wisconsin-Madison). This research supports the theory that a large percentage of online stalkers and harassers are likely psychopathic, considering the lack of empathy involved in their actions.

GROUP CYBER-HARRASSMENT

Cyberbullying and cyberstalking are further complicated when they are committed by a group. "They don't see the person face to or hear their voice; all they see is a screen so they don't realize the harm their doing." (Hitchcock, page 10). In some extreme cases, the attackers often communicate through direct messages or even sometimes make direct contact with an exchange of personal contact information. These events are mirrored in the real world. It is organized crime in the digital age.

Because there is power in numbers, the perpetrators feel empowered, and may be more likely to commit crimes. They take on a gang mentality, with members often trying to outdo one another in terms of their criminal actions against the victim(s). Members of the gangs are expected to prove their dedication, taking it to the most extreme each time. In 2017, a popular boy bander's girlfriend was physically assaulted by jealous superfans at Los Angeles International Airport. We have seen fandoms attacking other fans or other "rival" celebrities online due to celebrity worship syndrome. There have also been instances of online vandalism, with fans deleting Wikipedia pages of celebrities. In some cases, they have also shown up at victim's houses, "doxed" victims (providing addresses of target), and even given death threats. This is when cyberbully

transitions into actual stalking. This behavior is highly dangerous and has failed to be properly regulated.

GHOST FOLLOWERS AND SILENT OBSERVERS

Another unhealthy aspect of social media is the fact that many users are silent observers of crimes that take place online. This is evidenced by the phenomenon of ghost followers. For example, an Instagram user can have 3,000 legitimate followers, yet their content only receives engagement from 100 users. Even considering the fact that some people are not active online every day, there is a certain percentage of users who are simply there to observe. They do not like content, or comment on it; they simple sit back and watch.

In normal situations, this might not be a particularly harmful trend, however, when it comes to online bullying or harassment, that is when it is alarming. These silent observers choose not to involve themselves in such conflicts for many reasons: fear of backlash, lack of background information, pure indifference, or they may have a lack of empathy, and view it a "pure entertainment". The most common attitude is: *"It's not my problem!"*

CYBER-MICROEXPRESSIONS

"Based on research from Dr. Ekman, we know that when we feel an emotion, we have an involuntary reaction, and that action is displayed by mircoexpressions. In addition, when we make facial expressions, we create the emotions attached to that expression" (Hadnagy, pg. 184). These elements of psychology, as expected, are interpretable on social media, particularly, in high profile insistences. For example, subject A, is an actress who is experiencing a psychotic break on Twitter and subject A is tweeting inappropriate content. Those directly and indirectly involved with subject A, may display involuntary reactions by digital footprints displayed in their digital mircoexpressions. This is the study of cyber-microexpressions.

As Adeyemi, Abd Razak, and Salleh assert, the digital footprint of users can be analyzed down to a science:

> The use of the personality trait FFM in Web science research, which consists of openness to new experience, conscientiousness, extraversion, agreeableness, and neuroticism, allows for a common vocabulary and metrics for investigating and understanding individual dynamics. The study presented in Golbeck et al. (2011) showed that humans reveal their personality trait in online communication through self-description and online statistical updates on social networking sites through which the FFM can provide a well-rounded measure of the human–

computer relation. The study observed that the personality trait of users can be estimated (in social media) to a degree of $\cong 11\%$ accuracy for each factor based on the mean square error of observed online statistics.

Cyber-microexpressions can manifest based on the emotion attached to expression or overall feeling or mood of a subject. These outputs can be independent or reactive. In this instance, we are focused on the reactive type. If the collective reaction towards Subject A's psychotic's break is contempt, the trigger event will elicit an emotional response in those subjects which will ultimately result in cyber-mircoexpressive responsivity in subsequent posting and other online actions, reflecting such emotions, regardless of algorithmic content because the subjects intentionally post consciously *sought* content.

This is also particularly prevalent in cases of online feuds as well as cyber-bullying; the perpetrator will post content to elicit a negative emotional response from the victim. The perpetrator posts to essentially tell a story on their cyber channel and gain not only a response but also an induced narrative to influence "public opinion" in their favor. For example, if Subject X and Subject Y are feuding behind closed doors, they may act out passive aggressively online, known colloquially as "throwing shade" or "shading." This is a way to subtly act out aggressions, whether or not other onlookers are aware of the feud. Thus, Subject X may, for example, post something on social media to gain sympathy and/or villainize Subject Y. It is not uncommon for Subject X and Y to engage in competitive behavior online: Subject X posts a selfie, so subject Y posts one as well, with the aim of regaining the public gaze, as if to say, "look at me, I am beautiful, too." These are age-old human reactions, but they are now being acted out online.

Christopher Hadnagy discusses in Social Engineering, *The Science of Human Hacking,* in the chapter, I Can See What You Didn't Say:

> I again saw a connection in the research between planting emotional stimuli before the brain has a chance to "Turn on", and I can cause the target to feel slight sadness or fear, then I advantage of their empathic response. In other words, mastering the use of pretexts can help me elicit the emotions I want in my subjects; I can make them feel how I want them to feel. Now we are getting to the point, finally, of why understanding nonverbals is so important. (pg. 185)

In the case of high-profile figures, in this instance of Subject A, the other individuals are brands, self-aware of public observation of their online behavior, thus, they avoid liking content that can be linked to incriminating behavior, but their activity will be live during the psychotic episode of Subject A.

In other forms of harassment, the Subject will follow target on all platforms, even if the target no longer is engaging. Both sides are classically conditioned to every dimension of conflict. The aggressor, as we see with many narcissistic personality disorders, works very diligently at provoking the target to act out so the subject can feel gratification and control over the target, whom they now view was weak. The subject will often use a side

account often referred as "Alt accounts." This ultimately allows the subject to move anonymously. However, both parties experience an increase of onset anxiety and depression and other negative reactions, such as eating disorders as a result. The attacker will increase internet use whether it involves obsessing, re-reading or strategizing. This can result in less time updating their own personal page because they become consumed in the alternate reality which they must maintain to continue provoking the target. In addition, the aggressor may begin to consciously or subconsciously mirroring the target, by copying their physical appearance, personality traits and/or type of online content. Again, because these actions are cyber-microexpressions, they may be difficult to decipher at first glance, and may require more in-depth observation.

This type of competition can become increasingly hostile in instances of romantic competition. Let's assume that Subjects X and Y are female love interests of Subject Z. Subject X is an ex-partner, while Subject Y is a new, current partner of Subject Z. Subject X may attempt to garner Subject Z's attention due to jealousy over the new relationship by posting provocative or attention-seeking content to gain interest and or sympathy from Subject Z. Subject Y may then choose to respond in competition, as well. This dynamic can be further complicated, just as offline "love triangles," if Subject Z has interest in both parties. Unhealthy triangulation can then play out online as well as offline. As this example displays some online interactions which may not be illegal can still have adverse effects on both the victim and the perpetrator, especially such instances of unhealthy competition.

SOCIAL MEDIA VS THE REAL WORLD

Online existence is based on perceptions. What people project online is often far from reality. Due to the nature of social media, users can post what they choose, and leave out what they decide to, as well. Social media by its very nature is deception; it is based in half or even quarter-truths. Social media is not reality; it is very small snippet of the "highlights." It is a selective piece of a façade, in the truest sense. This concept is multifaceted, in terms of perception of social media users, especially high-profile individuals. For example, Subject D, is a rich and famous actress who only posts beautiful pictures of herself, snapshots of her friends, and photos of her working on set. She leaves out her daily struggles with mental illness, her constant fights with her husband, her brother who is addicted to drugs, and her mother who is dying of cancer. She also leaves out her two beautiful kids – let's be fair, since *some* individuals do leave out some good things as well. The point is we never have the full picture from a social media profile, for better or for worse.

In addition, due to the nature of the internet, much content can be faked. For example, users can post photos using fake backdrops or even photomanipulation through Photoshop or other editing applications which can make someone appear that they are somewhere they are not. For example, taking a photo with a backdrop to make it appear that an individual is in Paris, in front of the Eiffel Tower when they are truly in their

hometown. Another example of this with celebrity users is "pap walks", in which fake relationships are pushed by two people who go out to dinner, and call the paparazzi to take photographs making it appear that they are dating to create buzz around an upcoming film project. People may post photos with others who may seem to be close friends, though, in reality, they are but distant acquaintances.

Many social media posts are highly calculated; people post what they approve other people to view. Many users even have multiple accounts: one public account so they can show the world how they want to be perceived, and one private account through which they show more details to close family and friends. The bottom line is that social media does not equate to what goes on in the real world. The takeaway is that you cannot judge someone from their social media account, or ever understand what percentage, large or small, that they actually include of their "real life." Furthermore, people are much more likely to bully others online, (for example: writing mean comments on other people's social media posts), than they they are to harass people in person. This is especially true since online harassers can hide behind the keyboard without showing their true face or identity, though the creation of faceless, nameless accounts.

ANONYMITY, CYBERSTALKING & SOCIAL ENGINEERING

One of the most alarming aspects of the internet is the anonymity. Anyone can easily create a fake account, using someone else's photos or highly edited photos to "catfish," "troll" or even scam an unsuspecting user. It is difficult to be completely sure who is on the other end of the computer or social media app, since users are not required to use their real names or disclose their identities.

Many online criminals will hide behind these fake accounts in order to commit their crimes. They can harass and be outright hateful and threaten the victim behind the anonymity of the internet. This makes it easy for perpetrators to engage in bigotry and hate crimes against people of other races as well, as they can hide behind fake accounts with no fear of repercussions. When criminals use fake accounts, it is easier for victims to feel like they are imagining the crimes, and to feel gaslighted by those close to them. Even law enforcement sometimes encourages victims to ignore the abuse (Citron, pg. 19).

In extreme instances, the attackers may even pretend to be friendly, in a calculatedly deceptive attempt to gain information to use against the victim. This is summed up by the concept of "pretexting." As Christopher Hadnagy writes in *Social Engineering: The Science of Human Hacking*, "Pretexting is defined as the practice of presenting oneself as someone else in order to obtain private information. It is more than creating a lie; in some cases, it can be creating a whole new identity and then using that identity to manipulate the receipt of information" (pg. 83). By using anonymous accounts, the attacker can more easily claim innocence as well, or even play the victim, by claiming they are not involved in the crimes. Unfortunately, this aspect of the internet often gives

perpetrators the upper hand. The good news is that criminals can always be tracked down using their IP addresses, and other means of digital forensics.

In the case of homicidal tendencies when dealing with targets battling life-threatening illnesses, attackers will increase cyberbullying when they are aware the target is sick, thus, ensuring that the target remains sicker. The ultimate goal in these sadistic cases is to push the victim towards death. There have been several cases in which cyberbullies intentionally harass victims who are suicidal, or otherwise mentally ill, until they commit suicide (Holt, pg. 176). Unfortunately, these predators often have sadistic motives, and show no remorse with regards to inflicting harm on others. They use methods of social engineering, which are actions aimed at influencing others to do something that they otherwise would not have done, to inflict pain on their victims.

THE PATH FORWARD

Accepting responsibility in the social media age has been re-digitized by swapping narratives and stories in posts. Whatever the reason, the internet has created this dark alley for criminal activity. A digital crisis among the internet's morally bankrupt residents, the New Age Digital Ghetto. It is unregulated: people reside here illegally; trades of sex and drugs go unnoticed and unpunished. Technologically improvised, it is escapism by administering an imagined matrix, which parallels reality to responsibility.

Here, you can buy guns, popularity, sex, people, and new identities which never existed beyond the infinite synapses of the florescent bandwidth, which lights a grim skyline; this is a depiction of this Digital Ice Age. The red light flickers in the sky, alerting the inevitable arrival of The New Big Bang. The Dark Ages emerge.

The echoes of fake news swarm our personal devices, of course – tailored to what we need to know according to the realities which we are willing to accept, or rather able to digest. Faith is no longer relevant because it is not visible physically, and therefore unable to be printed by our smug 3D printers. Seeing is believing in this age, but we dangerously negate that pesky introspection of reality vs. illusions.

Brainwashing is inevitable in many respects online because everyone's online reality is sponsored - tailored. Users have been indoctrinated into cults, political parties, terrorist organizations, conspiracies groups and sex trafficking rings. Everything you see online is an advertisement in one way or another, each ad more malicious than the next.

The use of algorithms can be a dangerous ally to mental illness in the case of subjects experiencing psychosis, delusions or other disconnections from reality. The A.I. predictive content can induce paranoia, aggravating delusions related to bipolar or schizophrenic episodes in mentally ill individuals because their social media feed may be flooded with content related to their delusions.

The reality is that crime runs rampant online, and due to the relatively young age of the internet, the law has not yet caught up with the social media age. Many predatory and dangerous actions go unregulated on what J.A. Hitchcock so aptly refers to as the "wild wild web." The term is a reference to the American west before law and order was brought to the new territories. A similar development of law and order has slowly begun to take shape online. New regulations and policies are being put in place not only to criminalize certain actions, but to make it easier to find, catch, and convict the perpetrators. Law enforcement is teaming up with social media outlets to ensure a safer and more secure online experience.

However, as a society, we cannot simply rely on law enforcement to clean up the entire cesspool. We as global citizens, each have a social responsibility to improve the collective online experience. This, of course, means not engaging in destructive behaviors online, but it also equates to standing up for those who are being bullied, harassed or stalked online. This may involve stepping in to help de-escalate a situation before it gets out of hand. In some situations, it may mean reporting an account that is harassing another user, or even confronting a friend or loved one about their careless behavior online. It may manifest as a celebrity using their platform in a positive manner to speak out against their fans attacking other individuals online. At the end of the day, we are all accountable for our own actions, but being a Good Samaritan can go a long way on social media, helping to ensure the safety of everyone online.

The effort has increased exponentially in the past few years to crack down on crimes related to cyberbullying and cyberstalking, but there is still much more that can be done. There is accountability for criminals offline, but unfortunately very little accountability online. What is needed is a complete overhaul of current social media policies, as they currently do not provide much protection at all for victims of cybercrimes. We need to link the study of narcissism and psychopathy with online harassment to make it more difficult for re-offending users to create anonymous accounts used for trolling and harassment. One solution perhaps is limiting the functionality of anonymous users to prevent deception and trolling. Furthermore, we need to embrace a system that would allow for lifetime bans for trolls and those who violate the terms of service. In addition, we need to engage in developing more preventative measures against online stalking in general, and make it easier for victims to press charges against their online harassers. The linkage of the study of cyber-microexpressions with gathering evidence of crime online can help close the loop of the internet injustices that are currently slipping through the cracks. The digital footprints of perpetrators will become key in the future of tracking and apprehending online criminals. We can go beyond IP addresses to understanding the in-depth movements of harassers and stalkers. Even malicious hackers are currently welcomed with far too many gaps in security, which need to be tightened up. Policymakers are currently working on new laws at multiple levels of government to help clean up the internet, making it a safer, more positive environment for all. The future of the internet is bright, and the possibilities are endless. It is our responsibility to ensure that the internet is safer for the next generation.

RESOURCES

Adeyemi I.R., Abd Razak S and Salleh M. "Understanding Online Behavior: Exploring the Probability of Online Personality Trait Using Supervised Machine-Learning Approach." Front. ICT 3:8. doi: 10.3389/fict.2016.00008. May 31 2016.

Alter, A. *Irresistible: The Rise of Addictive Technology and The Business of Keeping Us Hooked.* Penguin Press. New York. 2017.

Citron, D. K. *Hate Crimes in Cyberspace.* Harvard University Press. Cambridge, MA. 2014.

Hadnagy, C. *Social Engineering: The Science of Human Hacking.* 2nd Edition. 2018. John Wiley and Sons.

Hitchcock, J.A. Cyberbullying in the wild, wild, web. Roman & Littlefield. New York. 2017.

Holt, T. *Crime On-Line: Correlates, Causes, and Context.* Carolina Academic Press. Durham, N.C. 2011.

Nielsen Company, The. "Time Flies: US Adults Now Spend Nearly Half A Day Interacting with Media." July 31, 2018. Retrieved on Feb 25, 2019. <https://www.nielsen.com/us/en/insights/news/2018/time-flies-us-adults-now-spend-nearly-half-a-day-interacting-with-media.html>

University of Wisconsin-Madison. School of Medicine and Public Health. "Psychopaths' Brains Show Differences in Structure and Function." Nov. 7, 2017. Retrieved on Feb 23, 2019. <https://www.med.wisc.edu/news-and-events/2011/november/psychopaths-brains-differences-structure-function/>