1824

Thomas Jefferson University
Philadelphia University Honors Institute
Academic Journal

Thomas Jefferson University

Table of Contents

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Humanities & Social Sciences

Health & Life Sciences

Design, Engineering, and the Built Environment

Meet The Team

Founder & Editor-in-Chief
Rithika Padyala (she/her)
Pre-Medical Studies l 2026

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Pre-Medical Studies l 2026

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Pre-Medical Studies l 2025

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Visual Communication Design l 2025

Peer Reviewer
Kezia Joseph (she/her)
Pre-Medical Studies l 2024

Meet The Team

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Pre-Medical Studies l 2026

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Pre-Medical Studies l 2026

Peer Reviewer
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Physician Assistant (3+2) l 2026

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About The Journal

About

The inaugural *1824: Honors Academic Journal* was founded this year to showcase our undergraduate student population's work. As part of a growing university, an academic journal seemed to be just the right addition to not only gain recognition but also to provide a professional forum for students to exhibit their works to a larger audience. The journal aims to advance knowledge by organizing and displaying student-authored research papers, literature reviews, creative writing pieces, and more in an annual issue that matches Jefferson's Humanities & Health Forum theme.

Theme

We invite student reflection and investigation to create submissions on the theme, Repair. The theme of Repair encompasses a diverse variety of contexts including sustainability, technology, and social issues and highlights the importance of resilience, healing, and progress in a rapidly evolving world. Through this theme, students are encouraged to critically engage with the concept of repair and how they can integrate its essence into their lives, academic pursuits, and professional aspirations.

Institutional Mission

The academic journal emphasizes Jefferson's vision of reimagining health, education and discovery to create unparalleled value and mission of improving lives by challenging the status quo of how students learn best in a 21st-century academic setting. By creating an opportunity for students to express their opinions, feelings, and attitudes through scholarly work, the journal exudes Thomas Jefferson University's focus on "Redefining Possible." We hope the journal will be a vehicle to bring students together for the common goals of reflection, action, and innovation.

Name

The name of Thomas Jefferson University's Philadelphia University Honors Institute pays homage to the legacy Philadelphia Textile School, which was founded in 1884 and later renamed Philadelphia College of Textiles and Sciences in 1961 and Philadelphia University (PhilaU) in 1999. In 2017 PhilaU merged with and became known as Thomas Jefferson University, which was founded in 1824.

Founder's Foreword

My journey as a student at Thomas Jefferson University quickly revealed an unparalleled opportunity: the chance to question and innovate. Upon my arrival, I was captivated by the creativity, originality, and innovation that permeated this campus. Every day, students birthed ideas, projects, and goals, and it became clear to me that they would greatly benefit from a platform dedicated to showcasing their achievements. When I read the honors announcement soliciting interest in starting the journal, I knew this was my opportunity. With Dr. McCoy-Deh's support, I set out to establish an undergraduate journal led by Honors students but open to the entire student body. I soon discovered the extensive work involved in creating and promoting a journal of this caliber.

We aligned our theme with the annual theme for Jefferson's Humanities Forum and consulted the Journal of the National Collegiate Honors Council (JNCHC) as a model format. Drafting the mission statement, writing author and editor guidelines, and designing a Canvas course for the journal, quickly brought me to the realization that starting a journal from scratch was no easy task. The journal required an editorial team filled with passionate and ambitious honors students who shared the vision of an undergraduate journal. Fortunately, I couldn't have asked for a better team. We promoted the journal for months, and submissions gradually began to come in. Despite initial concerns over slow interest, my team reminded me that all good things take time and encouraged me with their unwavering belief in the vision.

I genuinely believe that Thomas Jefferson University empowers students to take charge of their college experience. I envisioned doing something new, so reached out to trusted faculty for the support and resources needed to bring this endeavor to life. This opportunity is something every student at our school is capable of. As a firm believer in youth advocacy and student leadership, I am proud to call Thomas Jefferson University my home because every day, I see my peers growing into formidable leaders.

We are proud to present the inaugural *1824: Honors Academic Journal*! This year's edition features nine authors across a variety of disciplines—Law, History, Psychology, Architecture, Literature, Social Sciences, and Health—who aim to educate our readership and showcase their hard work.

Our contributors and editorial team have collaborated for months perfecting and publishing their work in this first volume, and their efforts have not gone unnoticed. I would like to personally thank Kezia Joseph and Spencer Talbot for their unwavering dedication to this project. I also thank Allison Cravo for flawlessly executing the journal's layout. Additionally, I express gratitude to Clare Scharschan and Shreya Shah for promoting the journal through channels such as the Honors Student Association and circulation through Kanbar TV screens and posters. Lastly, I thank Dr. Marcella McCoy-Deh for her support in all that I do. Thank you for meeting with me for hours on end collaborating and listening to me talk, quite endlessly, about the journal. This journal would not have been possible without my amazing team, so I commend and thank you all for your passion to innovate and give back to our school.

If you are a student interested in publishing with us, you can contact Honors to join the Canvas course "1824: Honors Academic Journal" at Honors.Institute@Jefferson.edu.

On behalf of our editorial team and our authors, we hope you enjoy this first volume of *1824: Honors Academic Journal*. As you read, we urge you to "Redefine Possible" within your own disciplines and course of life.

Sincerely,
Rithika Padyala
Founding Editor-in-Chief, *1824: Honors Academic Journal*
1884: Honors Academic Journal

Director's Foreword

Greetings!

I am very proud of the student editors for collaborating to launch this inaugural issue of *1824*. Their effort over the past few semesters marks the beginning of a tradition of honors-led peer reviewed scholarly publication for undergraduate students at Thomas Jefferson University. The Philadelphia University Honors Institute of Thomas Jefferson University is proud to support the intellectual output of all Jefferson undergraduates through *1824*. Student publication is encouraged as an honors practice and modeled by the National Collegiate Honors Council (NCHChonors.org) and regional honors communities.

The theme, "Repair," was selected to align with that of the Jefferson Humanities Forum. Each year, Honors partners with the Jefferson Humanities Forum to identify one of the series speakers. That speaker engages the Jefferson campus community, and specifically, Honors Institute students around readings, and in conversation on the selected theme. We thought it befitting to extend that engagement by inviting students to broadly consider and interpret how the idea of "Repair" shows up in their creative and disciplinary work, general studies, and practical applications. Special acknowledgments to Associate Provost Susan Frostén and Honors Institute Manager Daniel Maloney, for their support of *1824* as copy and design reviewers in its final stages.

Enjoy!

Marcella McCoy-Deh, PhD
Director, Philadelphia University Honors Institute
Thomas Jefferson University
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Immediate Past President, Northeast Regional Honors Council

Understanding and Addressing False Confessions in Criminal Justice
by Alyzeah Hedgepeth

Abstract: In the hushed corridors of interrogation rooms, the echoes of false confessions reverberate with haunting clarity, bearing witness to the profound complexities of human nature and the impact of psychological manipulation. This research paper seeks to illuminate the intricate dynamics of false confessions within the criminal justice system, offering a compelling exploration of the psychological forces at play and the profound implications for individuals, communities, and society at large.

Addressing the Legal and Psychological Implications

False confessions have profound psychological and moral implications for the defendant and their families. From a psychological standpoint, the individual who falsely confesses may experience intense feelings of guilt, shame, and confusion, often leading to long-term psychological trauma. This burden extends to their families, who may suffer emotional or financial distress and stigma as a result of the false confession. In the legal realm, false confessions undermine the integrity of the justice system, perpetuating misinformation and potentially leading to wrongful convictions. In addition, television portrayals of interrogations, often glamorized and dramatized, contribute to public misconceptions about the interrogation process, leading to a presumption of guilt even before a fair trial.

Another component of psychology is confirmation bias. This process describes when individuals tend to favor information that confirms their preexisting beliefs or hypotheses, and plays a significant role in false confessions (Lidén et al., 2018). For instance, if investigators already believe a suspect is guilty, they may interpret ambiguous or inconclusive evidence as further proof of guilt, ignoring contradictory evidence. The malleability of the human mind, coupled with the physical and psychological stressors present during interrogations, can heighten susceptibility to confirmation bias. This topic will be continued later in this research.

An Overview: Compliant vs. Internalized Coerced Confessions

Among the myriad of atrocities perpetrated by the criminal justice system, false confessions stand as a chilling testament to the fallibility of human judgment and the insidious power of psychological manipulation. This introductory section provides a comprehensive overview of false confessions, revealing an unsettling significance and factors that contribute to their occurrence. By delving into Reid's technique and the realms of psychological coercion, suggestibility, and compliance, this section sets the stage for an in-depth exploration of the intricate dynamics at play within police interrogation rooms.

Consider the scenario of an innocent person, overwhelmed by fear and pressure, coerced into confessing to a crime they did not commit. This is what is known as a compliant coerced confession. It is a sad portrayal of someone surrendering to external forces, desperately trying to alleviate their suffering and uncertainty (Lackey, 2020). In the face of relentless pressure, even the most steadfast individuals may find their resolve crumbling, their certainty wavering, and their memories distorted. This vulnerability of the human psyche underscores the importance of safeguards within the criminal justice system to protect against wrongful convictions. Additionally, there are internalized coerced confessions, where prolonged interrogation and psychological manipulation lead an individual to doubt their innocence and eventually accept false

guilt (Lackey, 2020). As the fabric of reality becomes distorted, innocent individuals confess to crimes they did not commit, trapped in a nightmarish scenario where their minds betray them. This erosion of personal autonomy and psychological integrity not only undermines the pursuit of justice but also inflicts lasting harm on individuals' mental well-being and society's trust in the justice system.

Interrogation Methods: An Analysis of the Reid Technique

Transitioning from the harrowing effects of coerced confessions, it is imperative to scrutinize interrogation techniques, such as the Reid Technique, and their ethical implications. The Reid Technique is a widely used method of interrogation that aims to elicit confessions from suspects. However, it has been criticized for potentially contributing to false confessions and miscarriages of justice. The Reid Technique employs psychological coercion tactics such as minimization and maximization to pressure suspects into confessing, manifesting a psychologically draining and abusive environment (French, 2019). The confrontational nature of the technique can increase suspects' susceptibility to suggestive questioning techniques, leading them to incorporate false information provided by interrogators into their confessions. Suspects may comply with the demands of the Reid Technique to end the stress and pressure of interrogation even if they are innocent, thus contributing to false confessions.

Interrogators using the Reid Technique focus on obtaining a confession that confirms their preconceived beliefs about the suspect's guilt, leading them to ignore exculpatory evidence or alternative explanations. Below is a detailed explanation of the nine-step method of interrogation, its pitfalls, and its relevance to the previous information on false confessions. Developed by John E. Reid and Associates, this technique is designed to extract information from suspects by creating a psychological atmosphere of pressure and control (Mason, 2020).

Though only applied in some interrogations, the nine-step method includes the following:

1. Confrontation: The interrogator presents evidence or accusations against the suspect to establish guilt.
2. Theme development: The interrogator offers the suspect a morally or psychologically acceptable explanation for the crime.
3. Handling denials: The interrogator rejects the suspect's denials and encourages them to confess.
4. Overcoming objections: The interrogator responds to the suspect's objections and rationalizations.
5. Procurement and retention of suspect's attention: The interrogator maintains control over the interrogation by keeping the suspect focused.
6. Handling the suspect's passive mood: The interrogator seeks to exploit the suspect's passivity by encouraging cooperation.
7. Presenting an alternative question: The interrogator offers the suspect a choice between two explanations for the crime, one of which is more morally acceptable.
8. Having the suspect orally relate various details of the offense: The interrogator encourages the suspect to provide a detailed confession.
9. Converting an oral confession to a written confession: The interrogator obtains a written statement from the suspect confessing to the crime.

Overall, while the Reid Technique may have proved beneficial in the past for some cases, its potential to elicit false confessions underscores the need for caution and scrutiny in its application within the criminal justice system. Despite being effective in its time, there is concern regarding the risks of using this technique. This can be mitigated through training in ethical interrogation techniques and implementing recording requirements for interrogations (French, 2019). This reform in law enforcement aims to strike a balanced approach between exposing criminals and safeguarding individuals from coercive interrogation tactics by prohibiting misrepresentation and the use of fabricated evidence, known to heighten the likelihood of false confessions.

The Central Park Five, Brendan Dassey, and The Tragic Impact of False Confessions

The Central Park Five case unfolded in New York City in 1989, following the vicious assault and rape of a female jogger in Central Park on April 19th The incident sparked widespread public outrage and media attention, leading to the swift arrest of five African American and Hispanic teenagers ranging in ages from 14 to 16: Kevin Richardson, Raymond Santana, Antron McCray, Yusef Salaam, and Korey Wise (Bartley, 2023). Following their arrests, the

teenagers were subjected to intensive interrogations by law enforcement officers. Despite lacking physical evidence tying them to the crime, the Central Park Five confessed to the assault after enduring prolonged questioning and coercive tactics. These coerced confessions became pivotal in the prosecution's case against them.

In 1990, the Central Park Five stood trial and were convicted of various charges including rape, assault, and rioting. The trials were marked by racial bias, with media outlets sensationalizing the case and perpetuating stereotypes about young black men (Bartley, 2023). Despite inconsistencies in the evidence and doubts about the teenagers' guilt, they were found guilty and sentenced to prison. Years later, in 2002, the true perpetrator of the Central Park jogger attack emerged when Matias Reyes, a convicted murderer and rapist, confessed to the crime. DNA evidence corroborated Reyes's confession and exonerated the Central Park Five, highlighting the miscarriage of justice they had endured.

Following their exoneration, the Central Park Five sought legal recourse and compensation for the wrongful convictions that had irreversibly impacted their lives. In 2014, New York City settled with the five men, failing to acknowledge the gross negligence and insufficiency of financial compensation as a mere gesture to rectify the injustices endured by the young men. While monetary restitution may provide some semblance of support, it falls woefully short in addressing the immense psychological harm endured, loss of freedom, and erosion of trust in the justice system inflicted upon these individuals.

A case, striking in resemblance, is Dassey v. Dittmann (2017), involving the wrongful conviction of Brendan Dassey (16), a mentally challenged teenager from Manitowoc County, Wisconsin. Dassey, alongside with his uncle Steven Avery, was convicted in 2007 for the rape and murder of Teresa Halbach, along with his uncle Steven Avery. The case gained widespread attention following the release of the Netflix documentary series "Making a Murderer." Dassey's confession was obtained under highly controversial circumstances. During interrogations, Dassey, who had learning difficulties and a low IQ, was coerced into providing a detailed confession that conflicted with the evidence and lacked coherence. The interrogators used leading questions, suggestive techniques, and false promises of leniency to extract

the confession. Despite the absence of physical evidence linking him to the crime and serious concerns about the reliability of his confession, Dassey was convicted and sentenced to life in prison. Though regrettably belatedly, in August 2016, a federal magistrate judge overturned Brendan Dassey's conviction, ordering his release, which was subsequently postponed during an appeal after determining that Dassey's confession had been coerced.

Illuminating Unlawful Legal Practices: A Chance At Reform

The use of illegal interrogation techniques, coupled with the withholding of fundamental human rights such as access to food, water, sleep, or restroom breaks, highlights the prevalence of false confessions and the systemic abuse of power within law enforcement (Lackey, 2020). Moreover, these egregious tactics often carry racial and biased undertones, exacerbating the already entrenched inequalities within the justice system (Scherr et al., 2020). Such violations not only disregarded the constitutional rights of these young men but also inflicted lasting trauma and perpetuated false assumptions about their innocence or guilt. Transitioning away from the Reid accusatory interrogation model ingrained within the American criminal justice system will be difficult, given its deep-rooted influence and widespread faith in its effectiveness (French, 2019). While criticisms from legal and social science circles exist, they remain a minority viewpoint among law enforcement. However, despite anticipated resistance, it is imperative to recognize the need for change Embracing insights from forensic psychology, the system must take the challenging first steps toward a reformed, more reliable interrogation approach grounded in a nuanced understanding of coercion and informed by current literature.

Conclusion

This paper aimed to encapsulate the distressing experiences of individuals caught in the complex machinery of legal proceedings. Prevention and mitigation strategies loom large, offering a beacon of hope amidst the criminal justice system's horror. Exploring how apprehension during suspect interrogations can trigger confirmation bias, further highlights the importance of implementing debiasing

techniques to ensure fair and just legal proceedings. Each coerced confession represents a life disrupted and a truth obscured. It reminds us of the flaws within our justice system and the urgent need for reform.

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Correlations Between Social Media Use and Self Perception in the LGBTQ+ population

by Spencer Talbot

Abstract: Social media has many effects upon its users. This study examined if there was a correlation between self-perception and social media use through a survey and subsequent data analysis. A correlation was found between the use of social media with subsequent addiction with decreased levels of self-perception and self-worth in both contexts of data and background. On average, LGBTQ+ individuals were affected at lower rates by addiction and had higher rates of self-esteem.

Introduction

1.1 Severity of Social Media Use

Over the last several years, many questions have risen regarding the mental health of today's youth. One of the contributing factors that changed the experience of today's youth is the presence of social media services (SMS). Social media itself was established in 2000 and became popular with Myspace in 2004 (34). Social media can be described as messaging and image-sharing platforms where users share, create, or modify previous content and interact with other users. This can vary, whether it is TikTok and YouTube using videos, Pinterest and Instagram using photos, or Reddit using text-based posts. There is a direct correlation between social media usage and mental health issues(11)(24). These include depression (14), anxiety (15), and body image disorders (16). Addiction is also prevalent with the use of SMS and mobile devices (71). A study from an Indian school of higher education found that 36.9% of those using SMS had an active addiction to SMS use (72). SMS use in excess of three hours poses a heightened risk for mental health problems, especially internalizing problems. (75) These problems range from anxiety, depression, and somatic symptoms. (75) These correlations are also especially relevant due to the number of youth engaged in social media usage. According to a 2015 study by the Pew Research Center, 92% of teens go online daily, and 56% access online material several times a day (13). University students themselves use social media at some of the highest levels (41).

1.2 Body Dysmorphic Disorders

Young adults pay attention to what the media says and shows. An example of this is the proliferation of unattainably thin body images (27), which has harmful effects on mental health (28). Longitudinal studies have shown that youth take action on these perceptions, such as extreme dieting (29). When women compared themselves to social media figures and personalities, they saw the development of lower body esteem (31). These body image issues can lead to more problems, as poor body image can affect physical and psychological health. These body image issues harm self-esteem, which influences mood, competence, and functioning (32). Social media itself inspires comparative behavior between the user and those they are observing (31). This being said, the correlation between social media and body dysmorphic disorders can be extrapolated. Though the use of social media is not the sole cause of these disorders, there is a direct correlation between the use of social media and body dysmorphic disorders. (54) (55) Muscle Dysmorphia (MD) is a subtype of Body Dysmorphic Disorder (BDD) characterized by the preoccupation with the idea that one's body is not sufficiently lean and muscular (56). From a 2017 Elsevier article, "excessive exposure to SM

is associated with Eating Disorder pathology, and that the preoccupation over physical appearance and muscularity, which can be triggered by certain SM contents" (57). These increased risks of BDD are due to these harmful posts since this content can be tailored to a person already struggling with disorders. This can lead them to worsen already existing conditions by adapting the algorithm to negative engagement patterns, resulting in a negative cycle social comparison and unattainable appearance of body size and shape. (58) Men can pursue unrealistic body images, and this is accented by the titles of a "natural" bodybuilder on social media. Natural bodybuilders abstain from all performance-enhancing substances, specifically anabolic steroids, insulin, diuretics, and human growth hormone (59). Though there are different competitions for natural or "enhanced" bodybuilders on a moral level, the effects of "faking natural" are incredibly harmful and common. This pursuit of naturally unattainable bodies can lead to harm for a user's self worth (57).

1.3 LGBTQ+ Individuals and Social Media Use

Lesbian Gay Bisexual Transgender Queer (LGBTQ)+ individuals have a higher rate of social media usage as compared to their heterosexual peers (5). So too do they experience higher rates of depression (33). From Journal of Medical Internet Research, the higher rates of depression in LGBTQ+ individuals are partially explained by negative social media experiences (12). A report released by the Human Rights Campaign identified that LGBTQ+ youth were at higher risk for mental health problems, due to their environments among other factors (18). LGBTQ+ youth statistically have mental health challenges at a higher rate than their heterosexual peers (76).

1.4 Social Media's Effects on Mental Health

SMS can be classified as entertainment, among other things. More time spent in distraction means less time available for academic pursuits. A 2021 study found a correlation between high social media usage levels and decreased academic performance (40). There are many factors to this, but sleep is a major part. The same study found that many college students used mobile phones before bed. In this study, 45% of the students slept fewer than the recommended eight hours due to social media use alone (40). Sleep deprivation has many harmful effects, but most of all is the worsening of pre-existing mental health

conditions. From the Columbia University Irving Medical Center, sleep issues can also contribute to mental health problems such as anxiety, depression, and suicidal ideation (42). The way students think can also be affected. From a University of Buffalo study, feelings of social exclusion experienced through social media resulted in physical and psychological consequences, including reducing complex cognitive thought (43). The use of social media affects academic performance. Though there is no direct link between use of social media and academic performance, addiction and reliance on SMS platforms have a correlation to GPA (73). A decreased academic performance leads to decreased self esteem (74).

1.5 Social Media's Effects on the Economy

Social media in itself has negative effects on the economy. A Westminster research study found that for every 1% increase in social media users, economies observed a decrease in GDP growth of 0.02% – 0.06% (44). There is no one identifiable cause in social media for this. The report stated that it could be due to various factors, such as inactivity, inefficiency, and sedentary behavior. Social media as a whole impacts the spending habits of consumers in the same vein. Much of social media shopping is done via dropshipping, using brands like Aliexpress and Banggood (51). Advertisements, much like the posts that users see, are tailored to the individual, which creates great profit. The drop shipping industry is projected to reach 557.9 billion USD by 2025 (52). The advertising also benefits other forms when combined. According to a University of Buffalo study, "when social media is combined with TV marketing, customer spending increased by 1.03% and cross buying by 0.84%." (53). This affects the consumer directly: through repeated exposure to direct and indirect advertisements, their opinion of purchases can be changed (66). Brand loyalty, or the repeated purchase from one firm, can be changed (67). The discovery of new products for consumers is also largely fueled by social media usage (68).

All of these behaviors incite a social phenomenon best described as "keeping up with the Joneses". According to a Forbes article, "Now, the game involves going on exotic vacations, showing off your busy social calendar, and proving you have a happier life than everyone else on Instagram" (61). This overconsumption is prompted by a variety of factors,

but it has harmful effects, such as depressing wage rates (62) and causing debt accumulation (63). Both of these things can lead to stress and anxiety (64), all for the sake of social and economic self-presentation. This mentality can lead to consumers thinking they are worse off economically than they actually are, driving self-destructive economic behavior (65).

Other users of SMS believe, based on a 2012 study, that the other users' lives are better than their own and they were happier (20). This contributes to feelings of inadequacy and diminished self esteem (20). Social media can be a driving factor in a person's happiness since they compare themselves to social media figures. It is true that the vast majority of content is tailored to a specific user in social media, that is, they see what they want to see (or what the algorithm thinks they want to see). However, social media content has a history of being faked. The accounts themselves, such as follower count, like count, and share count, can be bought or faked (45). From the same article, there are hundreds of retailers for like/follow/share bots, and these can lead to grossly inflated profiles (45). Businesses seeking advertising revenue can end up spending money on these fake accounts, due to companies using influencers to promote their products (45). Even real influencers can be fake. Hypeauditor, a social media data service estimates that nearly 45% of influencers' accounts are faked or exaggerated (46), and 55% are engaged in fraud or fakery (46). Statista found that Facebook removed well over a billion fake accounts a quarter, showing the depth of the problem (47). The content that is posted is not often true to reality. In a Forbes article, a student quoted "Filters and photo manipulation [have] created[d] a photo-sharing network that is more visually perfect — and unreal — than ever before (49)". This problem is identified by professors and professionals. From the Chicago School of Professional Psychology, Dr. Ali Jazayeri commented, "Among other dangers that Facebook might possibly pose in our lives, such as lack of privacy, is this habit of always comparing ourselves to others. People, when they are happy, post a lot of happy things. But when I'm not happy I will consciously, or unconsciously, compare myself to others. As a result, I create a world that is not a true world because I imagine that everybody is happy in that world, except me." Social media itself is a source of dopamine through its use (48) due to the fact that it gives the illusion of social interaction, activating reward pathways in the brain for relatively little effort (48).

Methods and Procedures

3.1 Sampling Methods

In order to maintain anonymity in the survey, only mass messaging, fliers, and social media were used. The data collection platform, Qualtrics, is completely anonymous, only recording the respondent's questions . Due to the sensitive nature of certain questions (such as a person's status as LGBTQ+), the survey was distributed in a way to remain anonymous. LGBTQ+ advocacy groups on campus were contacted and emailed the survey to those club members. Fliers were placed in common areas of the campus. Social media was used to further spread the survey, allowing for anonymity and ease of access.

3.2 Procedure

The survey itself consisted of a survey conducted through Qualtrics. It consisted of multiple choice questions, where respondents would give their level of agreement with a statement. There were four sections to this form. The first was an informed consent option. Before the survey was taken, the participant had to agree to a standard set of terms regarding privacy, opt-out procedure, and data use. The second section consisted of a SAMS self esteem test. The third section consisted of a Rosenberg self esteem scale. The final section collected demographic information such as age, gender, college type, and the social media platforms used.

3.3 Response Options and Measures

The Rosenberg self-esteem scale was used to determine self-perception at a more scientific level. Self-esteem is essential to the overall function of Self-esteem and has a strong relation to happiness (25). Low self-esteem is associated with the pathogenesis of numerous mental illnesses, including depression, eating disorders, and addiction (22) (23). The improvement of one's own self-esteem is essential. The scale consists of ten statements about a person's general feelings about themselves. Questions are graded on a four-point scale from strongly disagree to agree strongly. Five questions are ambiguously worded, and five questions are negatively worded. The scale is accurate, with a predictability coefficient of .92 (26). The scale is also reproducible in testing, with retest reliability of .85 and .88, both indicators of strong stability (26). The Displaced Behavior

Theory helps explain a connection between social media and mental health. People who spend more time on social media spend more time engaging in sedentary behavior, which is a risk factor for poor mental health. As a consequence, they spend less time in face-to-face interaction which helps prevent mental health disorders (4) (5).

The second scale used was to examine social media addiction, called the SAM-SF (70). This peer-reviewed scale examines social media addiction by answering a scalar set of 29 questions regarding lifestyle and personal choices relating to SMS addiction. This specific scale was used as it was designed for young adults and college students, which is the demographic being surveyed. This is a 5-point Likert-type scale which consists of 29 items and 4 sub-dimensions. 1-5 items are within virtual tolerance sub dimension; 6-14 items are within virtual communication sub dimension, 15-23 items are under virtual problem sub dimension and 24-29 items are under virtual information sub dimension. All of the items in the scale are positive. The highest point that can be scored from the scale is 145, and the lowest is a score of 29.

A set of standard demographic-gathering questions were used, seeking to find the respondent's sexual orientation, gender identity, age, and collegiate institution. This was the focal point of the study, identifying potential correlations between social media addiction and self esteem in a specific demographic. A list of common social media platforms were also given to the respondents, who then identified which of them they commonly used.

Results

4.1 SAMS and Rosenberg Graphs

The number of survey responses were n=42. Of these, n=29 were LGBTQ+. The average score on the Rosenberg scale was 14, just slightly below the normal range of 15-25. The average score of 79.390 was observed for the SAMS scale, showing moderate addiction to SMS. The average of LGBTQ+ participants was 14.03 on the Rosenberg scale, and 69.9 on the SAMS scale. The group average for the Heterosexual group was 76.25 on the SAMS scale and 13.91 on the Rosenberg Scale. The survey was given to students at a four year private university in the Northeast.
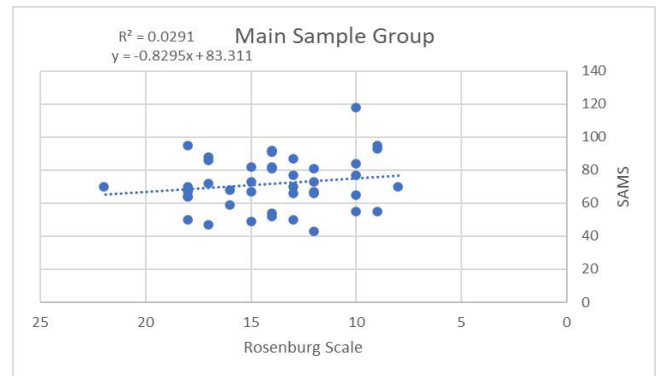
Fig. 4.1.1 Main sample group SAMS/Rosenberg Chart

Score	Category
Not addicted	29-52
Little Addicted	52-75
Medium Addicted	75-98
Highly Addicted	98-121
Very Highly Addicted	121-145

Fig 4.1.2 SAMS Scale scoring

4.2 Demographic breakdown of SAMS and Rosenburg addiction scale

LGBTQ+ individuals' responses were isolated as compared to their peers.
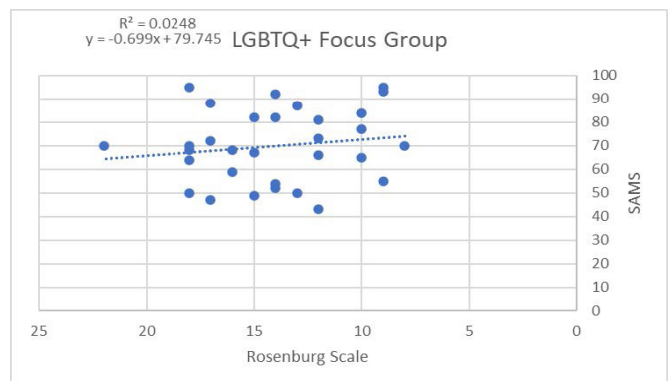
Fig. 4.2.1

4.3 Usage Statistics of Social Media Platforms

Respondents were recorded for the different social media platforms that they use. Instagram was the highest used platform, and third-party social media platforms were used the least.
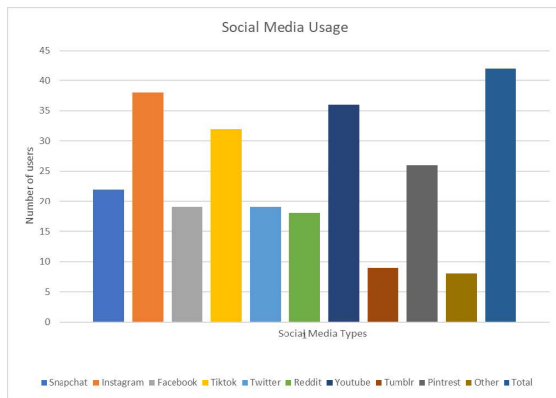
Fig. 4.3.1

Discussion

5.1 Data Usage

The data itself was of both a low sample size and low R^2 value (0.03 for both demographics). This itself shows a lack of correlation between the two. However, looking at the totals for the slightly below average score for the Rosenberg scale, and the heightened SAMS score, there is a correlation between the two in the given averages. By using mean average, it was determined that the average respondent was slightly below normal levels of self-esteem and had moderate social media addiction. It is difficult to sum human behavior with a linear model, in which a R^2 value is not as useful for prediction.

5.2 Confounding Variables

There are many confounding variables affecting mental health and the use of social media. In filling out the survey, a change in the user's mental state due to their day-to-day activities may influence their decision. Their performance in academics, or a subsequent result such as a recent grade could affect the response. Family life, the loss or gain of a job, social life, and many other factors influence a person's mood and mental health.

Emotional states can be changed by news, which is often delivered through social media (50). Social media can bear good or bad news relevant to a person's life and situation. Boredom may also drive individuals to SMS instead of depressive behavior. Not all experiences with SMS are negative, though this is not the assumption made in this study. Many other confounding variables exist, and can affect the results of both social media addiction and self-perception.

Conclusions

There was a correlation between lower levels of self esteem and higher levels of social media usage. The LGBTQ+ sample group demonstrated higher averages for self-esteem and lower averages of addiction as compared to the group as a whole, demonstrating a trend within this demographic. There are many confounding variables, but many can be explained due to social-cultural backgrounds and averages. More research is needed to determine the effects of social media.

Acknowledgments

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The Card Players
by Ryan Plover

Abstract: "The Card Players" is a creative writing piece that was written during the 2023 fall semester for the integrative seminar course ISEM 302.1 Telling Stories, Selling Stories, with Professor Robinson. Like the art exhibits of the Barnes Foundation that inspired it, this short story is an expression of creativity. Using relatable characters, splashes of emotion, and colorful world-building, this unique and thought-provoking piece grapples with ideas of the meaning of life, restoration, and the transformative power of art. In regard to the theme of repair, the take-home message of this narrative is to be hopeful and believe that no matter how broken something is it can be put back together with time, love, and determination.

Based on *The Card Players* by Paul Cézanne

The gallery's glass doors swing open as a roaring mass of people spills in. Art lovers, wannabe critics, and even children flock to the latest exhibit featuring pieces by a trendy emerging artist who goes by the name of Jodi. As the wave reaches its destination, jaws drop, cameras click, and tears fall. The showcase resides at the heart of the gallery, displaying Jodi's work along an entire wall. Her nine-foot-long spectacle of a centerpiece embodies her iconic abstract style perfectly by captivating the audience with delicate auburn and maroon smears between splatters of sporadic yellow-orange spots. LED fixtures line the ceiling above to illuminate every

splotchy detail, and the dull gray granite floors keep gazes locked forward. After several long minutes of chin-stroking, concentrated stares, and feeble attempts to assign meaning, attention spans dip, and a few people peel away from the group. A younger man, only here to snap a selfie to boost his online popularity, turns around from Jodi's colorful explosion of expression and eyes something else. Across the hall, opposite the new exhibit, an older oil painting hangs on an unremarkable white wall softly brightened by a solitary spotlight. Coffee in hand, sunglasses on, the young man shuffles over, stops, and leans in like he is reading a fast-food menu.

"What an ugly painting," he utters before turning around and rejoining Jodi's fan club. Behind a layer of protective glass, encased in a vintage golden frame, the older oil painting depicts two gentlemen dressed in Victorian-era attire playing a game of cards. Their fully furnished parlor room sports two oak chairs, a solid walnut table covered by an embroidered tablecloth, and a carved pine bookshelf brimming with classics. To a spectator like the young man, the gentlemen, divided by their table, are at war in a battle of wits over control of the cards. Yet, within the painting itself, a different scene plays out because, for whatever mystical reason, its inhabitants are alive.

Upon hearing the snide remarks of the young man, the gentleman in the olive overcoat seated at the table's right raises his cocked head and says, "Ouch!" Sarcastically shaking his patchy-bearded face from

side to side, he brings a hand to his heart. "That one stung," he quips. "Our glass must be reflective cause this little-"

"Knock it off, Lou." The other gentleman across the table growls as he grips his smoking pipe with intent. His gravelly voice is strangely befitting. "You know they can't hear us."

"Come now, Mo, I know that," responds Louis with a faint grin. Spying their last bottle of whiskey resting on the far end of the table, he reaches across and swipes it before his opponent notices. After a quick swig, Louis adjusts his chair and turns to examine Jodi's work for himself. "Just stating my opinion is all, I'm allowed to speak my mind."

"I've heard it all before," sighs Monroe as he twirls and pulls at his luxurious mustache. Never taking his eyes off the cards, Monroe organizes his hand, assuring his inevitable victory. "Your turn."

"I don't understand it," says Louis with crossed arms.

"Yes, you do. We play this game every day."

"Not that, old man. I'm referring to that mess across the way." Louis points a finger at Jodi's art. "I mean, what even is that supposed to be?" This observation intrigued Monroe enough to award a short glance.

"Looks kind of like fire to me," admits Monroe with an adjustment of his top hat. Behind a puff of smoke, his gaze defaults back to his cards. "Humph." He grunts, thinking about Louis' previous comment. "I'm not that old," whispers Monroe under his breath.

"Fire?" Louis squints hard. "I don't see it." Trapped in a stare, Louis becomes mesmerized by Jodi's swirling shades. A feeling of curiosity strikes him. On a serious note, Louis looks back to his only companion and asks, "Do you think there are people in there like us?"

"No."

"Why not?"

"I'm not doing this again, Lou."

"All I'm saying is-"

"I know what you're saying, and the answer is no." Monroe waves his hand like he is swatting a fly, hoping to end the conversation. Yet, today, the abstract art across the gray granite sea inspires Louis to press on. To Monroe's surprise, Louis abruptly stands from his chair, spreads his arms wide, and demands answers.

"What's the point then, huh!? Do we just play this ridiculous card game here in this room forever? Is that it? There must be others like us, otherwise, there is no point to any of this. We can't even leave!" cries Louis as he points across the room to the parlor door. "It doesn't budge, I've tried."

"Lou-"

"There must be more, Mo. And if you can't see that, you're blinder than-"

"Enough!" Monroe shouts as he slams his fist into the table, launching a few unfortunate cards off. Louis slides back down into his seat with a solemn, almost fearful look. Monroe composes himself by adjusting his collar and hat. After clearing his throat, the gravel in his voice turns to ice. "You're wrong Lou, and your vulgarity is disappointing, to say the least." Realizing his defeat, Louis draws a card.

The day goes on. Gallery patrons come and go. Louis and Monroe complete their daily routine by finishing their game, the bottle of liquor, and their heated discussion on the meaning of life. The conclusion remains the same: agree to disagree. Just before the gallery's closing, a strange man dressed in a black trench coat approaches their painting.

"Absolutely stunning," says the stranger with an eerie voice. "I expected nothing less from the legendary Louis Monroe. You were truly one of the best in all of France." As the stranger scans them up and down with his beady eyes, the two gentlemen glance over to the cursive scribble of their names marking the bottom corner of the painting.

"What's this clown saying about us?" Louis stares back at the shifty-eyed stranger in defiance. If he could leap through the glass and confront him, he would. Monroe is breathing heavily and has a worried expression written on his wrinkly face.

"I don't like this, Lou. Not one bit," says Monroe.

The stranger flashes a sinister smile before walking away. As the sky repositions, the sun dips below the horizon, and the gallery closes for the night. Leaning back in their chairs, Louis and Monroe sleep soundly to the gallery's stillness. Between deep snores, Monroe dreams about the game and imagines different strategies to outwit his opponent. Louis, on the other hand, pictures himself within Jodi's centerpiece. Amidst the sparkle of color, he finds new friends and the meaning he has been searching for.

In an instant, the two gentlemen are thrown from their chairs as their painting is ripped off the gallery wall and stuffed into a large bag. The thief sprints toward the glass doors, and the sudden movement sends Louis flying into the bookshelf. Diving under the table, Monroe scrambles to pick up the fallen cards. Shrouded by the bag, Louis and Monroe cannot see the thief smash through the gallery's doors, but they feel it. A blaring high-pitched alarm increases the duo's panic. After a few minutes, the thief stops running, and the alarm ceases into a faint and distant memory. Slowly, a gloved hand pulls the card players out from the bag and into an alley lit by the dim glow of the moon. The stranger from earlier in his long black trench coat scoffs at the object in his hand before tossing it to the gray cement ground. The fall shatters their glass barrier, exposing the horrified gentlemen to the real world. Before they can even get a word out, the stranger douses Louis and Monroe in a strong-smelling liquid.

"You took everything from me," hisses the stranger through grit teeth. Reaching into his right pocket, the stranger pulls out a match. In a heartbeat, the parlor room is ablaze. Monroe emits a gut-wrenching scream as the flames consume him and his beloved cards. Watching his friend warp and reduce to nothing, Louis sees hues reminiscent of Jodi's centerpiece. The next second, the fire engulfs Louis, transporting him back to his dream. The brush strokes that paint his soul bubble away in the heat. He finally felt free.

The next day, the police discovered what remained there in the alley—puzzled as to why the thief went through the effort to steal this solitary painting just to destroy it. Given its condition and lack of identifiable fingerprints, what was left of the painting was deemed fit for the bin. Already planning what to hang on the newly empty wall, the gallery's curator was unsure what to do with the charred canvas

and frame. Before it was decided, the curator's phone buzzed in a custom ringtone. With a hint of desperation, the curator scrambled to answer it.

"Ah, if it isn't my favorite artisan," says the curator with a wide grin. "I'm happy to say, Ms. Jodi, that your pieces have been turning heads all week." The curator glances over to the desecrated relic. "Looking to debut another fabulous creation? You know, a space just opened-"

"I heard about what happened to that stolen piece." Side-stepping the pleasantries and getting straight to the point, Jodi was as precise in conversation as she was with a brush. "I want it. I'll pay you whatever price you want." The curator bursts out in fiery laughter but it is quickly extinguished by Jodi's powerful silence. The realization that this is not a joke hits like a slap to the face.

"But Jodi, it's beyond restoration," replies the curator. "It would be a waste of your time."

"Nothing is ever truly a waste of time, and nothing in life is ever beyond repair."

The curator grants Jodi's wish out of respect and maybe a little fear. Two days later, the damaged painting arrives at Jodi's studio. Holding the remnants of the card players in her hands, Jodi takes a minute to honor the memory and message behind the original. In her eyes, the painting is as resilient as she is. Then she gets to work creating something new.

Something beautiful.

Something alive.

1824
Honors
Academic
Journal

The Restorative Power of Literacy in
The Autobiography of Malcolm X
by Kavi Shahnawaz

Abstract: In the fall of 2023, Kime Lawson had the students in his American Visions (AVIS-101) class read The Autobiography of Malcolm X. This book encompasses a multi-layered journey of repair. Although Malcolm came to be known for his compelling speeches during the Civil Rights Movement, he was not always an effective communicator. Due to numerous personal and societal obstacles, he never received a high school diploma and was functionally illiterate. Moreover, discrimination prevented him from securing a respectable job that could keep him afloat. As a result, he affiliated himself with gangs and his income became dependent on criminal activities. He quickly developed an addiction to heroin and stumbled down a dark and destructive path. His actions soon caught up to him when he was arrested in early-1946 at 20 years old. While in jail, he decided to reclaim ownership of his own acuity by teaching himself how to read and write, as well as immersing himself in faith. Within a few years, he completely turned his life around. Through consuming profound literature, he realized how deeply the United States was failing his community, which motivated him to take action. After repairing himself of the damage largely inflicted onto him by structural prejudices, he used his findings to repair the society that had locked him up in the first place. By performing a close reading style-analysis on a key passage from the text, one will understand how literacy is the ultimate reparative tool.

Background:

Malcolm X was born Malcolm Little in Omaha, Nebraska on May 19, 1925. He lived during a time where it was extremely rare for Black individuals like himself to receive a quality education. In 1940, when he was of high school age, the U.S. Census Bureau reported that just 7% of Black people had obtained high school diplomas compared to the 24% national average. (1) Malcolm unfortunately fell in line with this systematic trend, having only received an 8th grade education. He faced many barriers to literacy in his formative years in both personal and societal contexts. Firstly, he was in and out of foster homes because his mother was often unavailable due to periodic hospitalizations for her poor mental health. He was also dealing with the loss of his father at just six years old, along with the killings of four of his uncles. They were all suspected to have been murdered at the hands of white supremacists, which only added to the family's burden.(2) Further, Malcolm grew up poor because his mother was the sole provider and could not hold a sustainable job because of her aforementioned frequent hospital visits, as well as the rampant anti-Blackness that outlined this era. It was this racial tension which resulted in schools being segregated, with Black students discouraged academically while white students were given adequate resources to excel. Malcolm eventually dropped out of high school due to a racist remark by a white teacher, who put him down by saying that his dream of becoming a lawyer was unrealistic because of his skin color, and that he ought to pursue carpentry instead (35).

As Malcolm got older, he ran into the same trouble in his job search as his mother did before him. He had no degrees and he was African American, so he had very few options. As such, he wound up on the streets, relying solely on drug dealing for his income. When that plan proved to be insufficient, he turned to pimping to make some extra money. Over time, his actions became more and more criminal, as he resorted to running numbers and then stealing to make his ends meet. He did what he was shoehorned into doing, and he faced the repercussions of a culture crafted to suppress him. He became addicted to heroin and got lost in the world of gang-affiliated

crime. He was broke, having spent any money he had to fuel his addiction. Before the age of 21, he already earned himself eight to ten years in prison for theft and burglary on February 26, 1946. However, he took his sentence as a wake-up call for self-improvement. While he was incarcerated, he immersed himself in the Nation of Islam and taught himself how to read and write. He learned at depth about how the Black race is targeted in America and became passionate about Black pride and unity. He was released from jail on parole after six and a half years, having uncovered a capacity to enlighten crowds with his newly acquired wisdom. With the help of Alex Haley, he wrote a spiritual conversion narrative highlighting his inspiring story, and it was ultimately published nine months after his untimely, tragic assassination on February 21, 1965 when he was 39 years old. His work was aimed towards fellow African Americans who also needed to heal because he wanted to show them that personal and communal liberation is possible as long as genuine and continued effort is put in.

Selected Passage:

"I have often reflected upon the new vistas that reading opened to me. I knew right there in prison that reading had changed forever the course of my life. As I see it today, the ability to read awoke inside me some long dormant craving to be mentally alive. I certainly wasn't seeking any degree, the way a college confers a status symbol upon its students. My homemade education gave me, with every additional book that I read, a little bit more sensitivity to the deafness, dumbness, and blindness that was afflicting the Black race in America." (118)

Analysis:

Through this statement, Malcolm is expressing that every American deserves a pathway to literacy because it is stimulating on both a personal and intellectual level. By stating that reading opened him up to new views, he depicts how trapped he was before he became literate. Although he never actively thought of himself as an inarticulate person prior to being imprisoned, the realization hit him when he found himself frustrated at his inability to write a letter to Elijah Muhammad. Embarrassed by his incapabilities, he immediately started visiting the prison library regularly to bridge this gap in his education which was caused predominantly by

factors outside of his control. Growing up Black, he was no stranger to bigotry, but he was not yet aware of the heavily systematic nature of anti-Black racism in America. After developing a strong vocabulary from the dictionary, he got a grasp on complex literature regarding topics relevant to the Black community. Through his self-education, he developed a better understanding of himself, his brothers and sisters, and the landscape he was living in. He got himself out of a dark situation by honing in on his ability to absorb valuable information and it to produce rational opinions and decisions, as well connect with others and potentially learn even more from them. He often collaborated with other pioneers of the Civil Rights Movement and became so engaged in his work that he never turned back to his past life of crime.

He continues by declaring that reading permanently altered the course of his life, which is evidenced by the fact that he used what he read to inform his work all the way up until his death in 1965. His readings aided him not only in selecting topics to speak about, but in identifying an eloquent and dynamic manner for which to speak about them. His expansive vernacular in tandem with his unyielding passion for Black empowerment made him a strong public speaker. Through his choice to make a change in his life, he ended up in a far more financially stable and fulfilling position than he held before. He then describes how reading made him feel more alive mentally, which proves that he was previously being stifled while not being made aware of that reality. He never felt as if he mattered, especially when schools did not deem him worthy enough to be given a solid literary foundation. Malcolm grew depressed when he was a drug addict and a criminal since he did not have anything guiding him other than a group of bad influences. He lacked a substantial purpose to live. Reading was the gateway to a meaningful existence for him because a life where one cannot derive meaning from anything is, by definition, meaningless. To be able to think critically about issues means one can put their brain to work, which is a very productive distraction from getting involved in condemnable activities and spiraling thereafter.

Malcolm ends with the assertion that he never wished to get a college degree, which exemplifies that intellect and commitment to direct action hold more weight than a piece of paper. He likely took this stance because he got cheated by the academic world

when he was young. Additionally, his "homemade" education probably felt more potent since he got to focus on his specialized interests and be the sole reason for his own success. He took ownership over his breadth of knowledge, which had a history of being limited by external inhibitors, including the teachers who were supposed to be supporting him. He used the library at Norfolk Prison Colony to rewrite his own destiny because he no longer wanted to be defined by societal norms. Whether or not his Black readers wanted a degree, Malcolm led with the notion that his people should be able to speak for themselves instead of being silenced or talked over. In a country that has never had the best interests of Black people in mind, the least that can be done to promote their livelihoods is giving them a chance to vocalize their grievances, which entails access to material that boosts literacy skills. This fostering of self-expression allows an individual to no longer view oneself as disposable. In certain applications, literacy is synonymous with humanity, and it can be the key to restoring internalized trauma and tackling greater social justice issues.

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Bufferzones, Abortion, and the Captive Audience Doctrine

by Meghan McKenna

Abstract: As America continues to become increasingly polarized on the debate of abortion, abortion clinics have become split between providing feminine care and following their state's rapidly growing laws. Though abortion clinics have historically faced violence, exemplary in infamous cases such as Dr. David Gunn's murder, the recent decision from *Dobbs v. Jackson* gives reason to believe the long battle for peace is far from over. Similarly, the rise of violence in the form of protest against reproductive health-seekers or abortion-providers (in forms of arson, vandalism, and harassment) has caused great concern over whether clinics are safe for their clientele. However, critics of the belief question how one could limit the effects of the disturbance while also not infringing on their First Amendment right to free speech. Therefore, the article examines conflicts between the First Amendment and protections against protest, specifically concerning abortion rights given the absence of federal law in the area, and utilizes legal precedents set by the Supreme Court to offer a reasonable exception for abortion clinics. Moreover, the main focal point of the paper's argument is cemented by the vague captive audience doctrine, which has been relatively absent in legal arguments for its ability to be abused. Yet, as the article distinguishes, the captive audience doctrine could positively save lives as violence increases, and when held against the strict scrutiny standard, passes the test. In an effort to repair our democracy and the state right to restrict or allow abortion, the essay aims to find a reasonable solution satisfying all parties in the legal process, while simultaneously providing a safe haven for any person seeking any form of medical care at an abortion clinic.

Within the complexity of the current abortion debate, a focused conflict on protesting versus harassment outside of abortion clinics is veiled through layers of First Amendment critiques and right of privacy concerns. However, an unexplored concept of the captive audience doctrine, which has been inconsistent in rulings and precedent set by Supreme Court cases, may hypothetically aid the argument for a woman's right not to hear speech, while simultaneously meeting the requirements of effective speech. The main pillar of the captive audience doctrine is built on the concept of the "captive audience", where an audience is unable to leave and is forced to hear a message. Hence, to remedy the conflict, the captive audience doctrine allows "buffer zones" – a specific area or location where individuals are expelled from expressing political messages for fear of forcing captivity to a message. Under the captive audience doctrine, "a listener's right to privacy may overcome a speaker's right to communicate"(3), yet the court has stood ambiguously on the application, writing in Cohen vs. California that viewers "could effectively avoid further bombardment of their sensibilities by averting their eyes"(3) while also writing in Lehman v. City of Shaker Heights that the speaker "has no right to force his message upon an audience incapable of declining to receive it"(7). While one may argue that the key difference between Cohen and Lehman is that political speech imposed on a public-transit audience is inescapable as compared to an audience within a courthouse, one may further discern the locality of speech is a main focal point in determining proper use of the ambivalent principle. Thus, the vulnerability and incapability of escape for women seeking an abortion must be a factor in creating a protective law. Furthermore, in order to repair the current violent climate around abortion, especially given the recency of Dobbs v. Jackson, which overruled the federal right to abortion, the captive audience's application is a necessity for the wellbeing of abortion-seeking clients and the general interest of women. As a

foundational necessity, delving into the complexities of applying the captive audience doctrine too swiftly on First Amendment cases provides clarity to the narrowed means the law and American society provides for the concept. Discussed by Professor Laurence Tribe "'the concept of a 'captive audience' is dangerously encompassing,' and thus it is especially important that the theory be precisely defined. Moreover, the captive audience doctrine allows courts to ignore the traditional requirement of content neutrality; courts inevitably engage in viewpoint- or content-based discrimination when applying the doctrine"(14). Thus, the ability of the captive audience doctrine to be abused is not to be underestimated, and is likely the reason the Supreme Court is hesitant to apply such on First Amendment cases. Simultaneously, the inherent paradox of being unable to completely eliminate the exposure to society's harmful message while also limiting the ability for society to produce messages could hinder the marketplace of ideas. In an effort to aid the listener, the government then places the burden of silence on the speaker rather than the burden of listening on the unwilling audience. Additionally, speech of any multitude is bound to have impacts further than the immediate audience receiving the message, and henceforth, the ability to entirely avoid a message is implicitly impossible. In cases such as City of Renton v. Playtime Theatres (1) restriction of time, place, and manner, as opposed to content restriction was found to be necessary and did not limit speech "but rather has sought to make some areas available for adult theaters and their patrons, while at the same time preserving the quality of life in the community at large by preventing those theaters from locating in other areas."(1) Hypothetically, a contentious discourse over whether buffer zones are content-restrictive could be resolved by applying similar strategies, logically deducing that the ability for anti-abortion protestors to exercise their speech 35-feet away from a reproductive health care facility allows some areas available for protest, while at the same time preserving the quality of life for primarily women in the community.

However, there are further dangers in insinuating distance and locality are the only determiners of whether a speech restriction is content-based versus content-neutral. Thus, for more immediate solutions, a carved exception to fit strict scrutiny on a content-based debate could pass strict scrutiny and would apply the captive audience doctrine

to a specified class. While strict scrutiny is a form of judicial review which requires a restriction of speech law "to further a 'compelling governmental interest,' and must have narrowly tailored the law to achieve that interest"(5)–hence creating an increased standard for government regulation–the application of such would greatly increase the chances of a buffer zone's legality. Notably, the most notorious aspect of McCullen v. Coakley's argument came from the Commonwealth's focus "not on the protection of women seeking abortions, but on the general social interests of public safety and access to health care"(8), therefore creating a loophole for the government to, "ultimately conclude that it is not narrowly tailored"(13). Though to pass strict scrutiny, arguments for buffer zones outside abortion clinics would have to concede that there is a content based restriction on anti-abortion protesters, yet the restriction is necessary to protect the privacy and safety of women as a class. Furthermore, despite the Supreme Court's recent reversal of Roe v. Wade, and the Court's typical acknowledgment that "individuals may also have other fundamental rights, the protection of which may justify regulation of speech"(9), a specific carveout within First Amendment law by contending women's access to healthcare and limited ability for the audience to obtain access elsewhere must be argued for.

Mainly, the captive audience doctrine has been successful in its application for matters inside the home or in the immediate area surrounding such, further creating a gap to argue that targeted protesting in an effort to intimidate or harass a select group is grounds for a captive audience doctrine application. As discerned in Frisby v. Schultz, "even if some such picketers have a broader communicative purpose, their activity nonetheless inherently and offensively intrudes on residential privacy"(5), and whilst residential privacy is the main concern with the picketers given, directed attacks or advertisements have been limited for the interest of safety or captivity. Written by Justice Harry A. Blackmun in the majority opinion of Lehman v. City of Shaker Heights, the city consciously "has limited access to its transit system advertising space in order to minimize chances of abuse, the appearance of favoritism, and the risk of imposing upon a captive audience."(7) Similarly, applying the captive audience doctrine onto abortion clinics to minimize chances of abuse, the appearance of favoring one ideology over another, and the risk of imposing upon a captive audience

would aid in the overall pattern of mistreatment towards women seeking healthcare. To adequately meet the strict scrutiny standard, the government must prove a significant government interest–one met substantially when considering the recent 2021 statistics on abortion providers "show a significant increase in stalking (600%), blockades (450%), hoax devices/suspicious packages (163%), invasions (129%), and assault and battery (128%)"(4). Moreover, a buffer zone surrounding abortion clinics does constitute a content-based restriction, as the sole purpose is to limit the anti-abortion rhetoric spewed at health-care seeking individuals, however the content restriction is necessary and narrowly tailored for the government interest.

Buffer zones, by the Supreme Court's own rulings, are neither unconstitutional or uncommon, embraced in cases such as Hill v. Colorado, Madsen v. Women's Health Center, and Schenck v. Pro-Choice Network of Western New York, where similar rhetoric indicating a captive audience was utilized to argue the case effectively. Ruling the earliest out of the given cases, Madsen v. Women's Health Center emphasizes that despite the First Amendment's protection of sidewalk picketing , the extent of such "does not encompass attempts to abuse an unreceptive or captive audience, at least under the circumstances of this case"(12) when concerning a 36-foot buffer zone around the front of the healthcare facility. As a means to narrowly tailor the speech, the Court determined holding a buffer zone on the sides of the building would not impede the function of the clinic, nor those attempting to receive health care. Hence, when creating a specified exception to First Amendment law, concentrating logically on the front side of the building to permit a safe and accessible entrance for the clinic's clientele would likely succeed as compared to other alternatives.

However, in Schenck v. Pro-Choice Network of Western New York, the concept of "floating" buffer zones were struck down with the argument that the float distances's "lack of certainty leads to a substantial risk that much more speech will be burdened than the injunction by its terms prohibits"(15). Simply, a floating buffer zone's 15-foot radius would inevitably cause protesters confusion as to where the exact edge would constitute, and cause an unnecessary burden on those wishing not to interact with individuals entering the clinic at all. However, fixed buffer zones are upheld

under the proof that they are "necessary to ensure that people and vehicles can enter or exit the clinic property"(15). Thus, by holding that the law of a fixed buffer zone was not considerably burdensome on protestors and was for a substantial government interest, future advocates for a buffer zone imposition would need to propose that fixed buffer zones specifically aid in ensuring a captive audience's medical needs are met effectively.

Finally, in Hill v. Colorado, a successful argument that an eight-foot buffer zone which prohibits any speech (in the form of knowingly distributing leaflets, oral arguments, or education) surrounding those entering into the abortion clinic was made on the grounds that there were "no special threat to First Amendment freedoms because it applies alike to used car salesmen, animal rights activists, fundraisers, environmentalists, and missionaries"(11). Furthermore, the application of a captive audience doctrine would best be held if the buffer zone "places a minor place restriction on an extremely broad category of communications with unwilling listeners"(11), and therefore excludes all protest for the sake of the captive audience. Consequently, while all forms of confrontational protest (forms of protest where the individual is approached) would have to be eliminated for the buffer zone to be argued successfully, the safety of those entering an abortion facility substantially outweigh the rights of any protests–especially given an allowance for other forms of protest.

Hence, to cultivate the most effective exception to First Amendment law that would otherwise place burden on the protesters, one must argue that those seeking an abortion–or simply entering a facility where abortions are provided–are considered a captive audience. By proving that those inside the facility face a significant risk of being harmed by confrontational protestors, Courts are likely to acknowledge a substantial government interest in protecting the circumstantially captive listener. Similarly, while Courts are likely to raise the legal standard to strict scrutiny, the specified buffer zone should be limited to the front of the building, fixed in size, and excluding of specified protest to meet the narrowly tailored criteria. Despite discourse about whether the captive audience doctrine could be applied too broadly, the exception to abortion clinics and designated "safe-zones" for the captive audience has been shown to be increasingly necessary

to ensure the overall well-being of the audience. To ensure McCullen is not a repeatable result, narrowly tailoring the interest of the government to protecting the captive audience of women who can not go anywhere else to obtain an abortion–and are additionally victims to protest harassment–is necessary.

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1824
Honors
Academic
Journal

Managing Internet Regulation:
Examining the Modern Methods
by Rianna Varghese

Abstract: Each year, technology continues to evolve, so the Internet has required constant repair. As a result, there are varying regulations regarding the Internet in each country although not everyone agrees with such regulations. This paper conducts a comparative global analysis on the current methods countries are employing to manage the Internet use of their citizens. This is important to inform others about since people should know who may be accessing their personal information online.

The Internet can be described as "tiny bits of code that move around the world", allowing for a multitude of countries to communicate with each other and complete transactions due to nearly 750,000 miles of cable on the ocean floor that connects them (Satariano, 2019). There are positive opportunities that arise from the Internet, such as job opening notices and informative news articles. However, there are negative components that people unfortunately misuse as well, such as hacking sites and child pornography. Internet regulation refers to the "targeted public or private interventions aiming to influence the behaviour of others"; this term was first created in the mid-1990s, but its meaning can be applied to much broader perspectives today (Hofmann et al., 2016). With the constant development of new technology and updated software in the modern world, it has become more difficult to manage things online. This is also paired with the increased use of the Internet due to the prevalence of social media and the plethora of activities that can be completed by accessing the Internet. Each country has its own policies regarding internet regulation. For instance, in Japan, the Act on the Protection of Personal Information was passed to protect the rights of individuals as the "appropriate and effective use of personal information contributes to the creation of new industries, a vibrant economy and society…and the usefulness of personal information" (Hirayama & Arai, 2021). Certain countries even exercise periodic internet shutdowns instead of following specific policies. As with such measures, there are clear causes that have prompted

the creation of internet regulation and have continued to promote its relevance.

The Internet itself has been associated with much ambiguity regarding how it functions in the present and how it will perform in the future. This refers to specific situations such as "whether the Internet was a datafied and digitalised surveillance mechanism in which our 'privacy' was not as easily maintained" (Stilinovic & Hutchinson, 2022). This can commonly be seen through the dialog boxes on websites that inquire its users to accept the site's cookies, which some users may be accepting innocently. The reason why this occurs is that these individuals may be part of the 3 billion people, or 37% of the world's population, who have never used the Internet (Agence France-Presse, 2021). In situations such as this, the site has now received the user's permission to collect their personal data and create user preferences for the next time they access that site.

There are differing views between countries regarding privacy where some highly prioritize it while others do not. For example, Japan's protection of people's private information has not quite reached the level of the General Data Protection Regulation in the European Union (GDPR). In fact, "the treatment of personal information as property rights" has not been discussed in Japan (Hirayama & Arai, 2021); whereas in Europe, they have "all-encompassing privacy laws that establish a general right to privacy" (Harris et al., 2003). As a result of such ambiguity relating to the Internet and privacy concerns,

several countries have been affected by this, creating an extent of internet regulation that has to be continually reviewed and updated on a case-by-case basis.

It is important to observe the global impact of internet regulation as both big and small countries are impacted differently. It is interesting to note that every country has access to what their citizens are looking at on the Internet, but each one differs in their regulations in regard to this. This could be due to their varying values since some value privacy and freedom more in comparison to others as mentioned previously. The figure below demonstrates 14 countries that have the lowest internet freedom scores out of 70 countries that have been tested.

Figure 1
Countries with the Lowest Internet Freedom
(Buchholz, 2022)

China was indicated to have the lowest value of 10 with Iran and Myanmar behind it as a close second and third with values of 16 and 17, respectively (Buchholz, 2022). One particular source in general
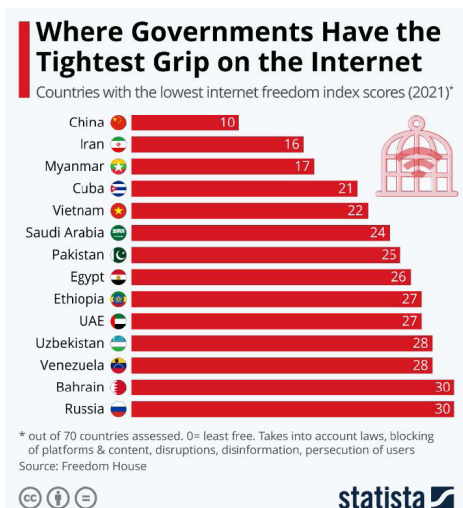
discusses the incorporation of the Panopticon concept in China, which was originally invented by the English philosopher Jeremy Bentham in 1791 to regulate the behavior of inmates in a prison while the guard watched them from a different location (Tsui, 2003). The idea behind this is that people can essentially be controlled if they know that they are being constantly observed. China has the second largest internet population after the United States, so they have an Internet Service Provider (ISP) that is able to record information of Chinese users while the

database works "continuously, systematically, and surreptitiously… [functioning] as the eyes and ears of the guard in the Panopticon" (Tsui, 2003). This can be dangerous because this ISP device is essentially collecting all this private data such as people's account numbers and the names of the websites they accessed using a method that was previously used to manage the behaviors of inmates; if used wrongly, this could lead to incidents of blackmailing or even identity theft.

On a global scale, there are numerous factors that have caused the creation of internet regulation. This can be seen especially with the Internet shutdowns that occur in countries of widely differing populations to regulate certain propaganda from a governmental level. These shutdowns have "occurred in at least 23 countries over the past 10 years, including Syria, Nepal, the Democratic Republic of Congo, Burundi, Ethiopia, Iraq, Kazakhstan, Pakistan, Sudan, Uzbekistan, Yemen, China, India" among others (Wagner, 2018). Figure 2 below illustrates the fluctuating numbers of Internet shutdowns in India specifically, increasing from 31 in 2016 to 134 in 2018, then declining from 100 in 2021 to only 40 in 2022 (Basuroy, 2022).

Figure 2
Mandatory Internet Shutdowns in India from 2012 to 2022

(Basuroy, 2022)

For India, a greater number of the internet shutdowns have taken place in the states where the Hindu-nationalist party (Bharatiya Janata Party) is in control; this is happening due to apparent Hindu-Muslim tensions in order to avoid further escalation and because this party does not tolerate disagreement
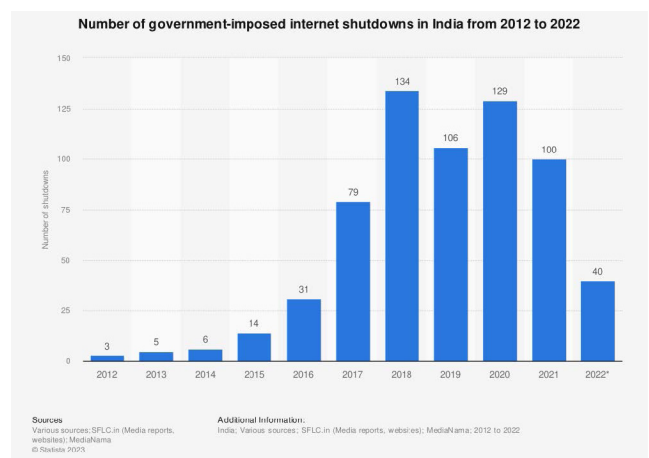
(Ruijgrok, 2021). It is likely that these internet shutdowns occur as a method to oppose any possible resistance against the government since the majority of the Indian population relies on their phones to access the Internet as they are not able to afford another "wired connection". As a result, when these shutdowns happen, they have lost all access to online communication. There is a possible political motive behind these shutdowns. They have occurred during protests in Togo (2017), Nicaragua (2018), Belarus (2020), and Myanmar (2020) as well as during elections in Africa such as those from 2015 and 2016 (Ruijgrok, 2021). This could have occurred in order to avoid swaying people's decisions in the elections. Pakistan has also experienced shutdowns regarding their political rallies, elections, and public assemblies (Ruijgrok, 2021). The top political motivator with all these countries and internet restrictions is to avoid an opposition to the government's stance.

Another noteworthy cause of internet regulation is the increased amount of time that individuals are spending on screen due to social media where they are accessing more information than ever before. Figure 3 depicts various countries ranging from which ones have the highest average time spent on social media per day versus the countries with the least average time.

Figure 3
Average Amount of Time Spent on Social Media in Different Countries

(Ahmed, 2022)

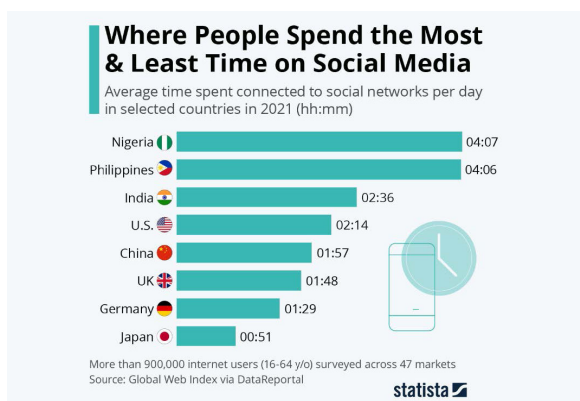Based on Figure 3, it is observable that Nigeria and the Philippines have the highest average time spent on social media, around 4 hours, whereas Germany and Japan have the lowest averages of 1 hour and 30 mins and 51 mins, respectively (Ahmed, 2022). With 4 hours just on social media, individuals can learn

new skills, communicate with friends and family, and post content among other things. For instance, it was a common trend to see people using the Internet more during the lockdown phase of the COVID-19 pandemic, especially on social media apps such as Tiktok. Despite the various benefits, this increase of social media use can have a significantly negative toll on an individual's mental health. It was discovered in a cross-sectional study among Chinese participants during the pandemic that individuals who had frequently interacted with social media had higher levels of anxiety and other conditions such as depression (Gao et al., 2020). Hence, it makes sense why certain countries would want to begin regulating this and offering support at an individual level. China, for instance, has provided its citizens with mental health services over the phone, online, or in person (Gao et al., 2020). Another study that interviewed participants based on the Spanish version of the Spielberger State-Trait Anxiety Inventory discovered that the higher anxiety group was made up of younger participants in comparison with the low anxiety group; the high anxiety individuals were the ones who left the house less frequently during the lockdown phase of the pandemic (Rodriguez-Besteiro et al., 2023). This is significant because it supports the idea that as a result of COVID-19, the younger generation has spent more time indoors and therefore resorted to scrolling online to pass their time COVID-19 has caused some radical changes to their habits and some social media platforms have taken the initiative of incorporating screen breaks in an effort to regulate the teens' tendencies to mindlessly scroll online.

There are numerous consequences that have resulted since the creation of internet regulation. For example, there may be occasions where government shutdowns are necessary, but they may have gone overboard by attempting to control what people are consuming on the Internet. This causes people to experience a loss of freedom, which is an important value to many individuals. Figure 4 portrays this visually as it stated which countries have enacted measures concerning platforms' content, created reforms relating to how companies manage user data, and utilized "competition policy as a tool to prevent abuse of user data, strengthen the information space, and empower users with greater choice" (Shahbaz and Funk, 2021).

Where People Spend the Most & Least Time on Social Media
Average time spent connected to social networks per day in selected countries in 2021 (hh:mm)

Country	Time
Nigeria	04:07
Philippines	04:06
India	02:36
U.S.	02:14
China	01:57
UK	01:48
Germany	01:29
Japan	00:51

More than 900,000 internet users (16-64 y/o) surveyed across 47 markets
Source: Global Web Index via DataReportal

statista

Figure 4
Governmental Internet Regulation Across the Globe

(Shahbaz & Funk, 2021)

This figure demonstrates how a wide variety of countries have created methods to control how corporations and platforms are using their personal information in order to regulate their actions. Based on Figure 4, it can be noted that Japan is one of the countries who has called to action in the defense of

Internet Regulation Sweeps the Globe

Governments in at least **48 countries** pursued new rules for tech companies on content, data, and competition over the past year.

24 countries initiated measures governing how platforms treat content

38 countries pursued reforms affecting companies' management of data

21 countries proposed action to defend competition

Argentina	Egypt	Japan	Pakistan	Ukraine
Australia	France	Jordan	Russia	United Arab Emirates
Bangladesh	The Gambia	Kazakhstan	Rwanda	United Kingdom
Belarus	Germany	Kenya	Saudi Arabia	United States
Brazil	Ghana	Kyrgyzstan	South Africa	Uzbekistan
Canada	Hungary	Malaysia	South Korea	Venezuela
China	India	Mexico	Taiwan	Vietnam
Colombia	Indonesia	Myanmar	Thailand	Zambia
Cuba	Iran	Nicaragua	Turkey	
Ecuador	Italy	Nigeria	Uganda	

competition policies. Specifically, Japan has employed the Anti-Monopoly Law, which "includes regulating companies' treatment of consumer information" and "may serve the function of personal information protection, increasing predictability and promoting proper information use" (Hirayama & Arai, 2021). It is evident that although people are experiencing a loss of freedom due to governments regulating how they use the Internet, they are also combating this with reforms at the corporate level.

Another major consequence is that if drastic methods, such as internet shutdowns, are used to control people's internet use, a communication barrier can be created. This can make it difficult to know what is happening in the world and stay connected with loved ones. These are known as communicative ruptures, which "are the intended effects of a shutdown; they are what happens in a society when communications networks are intentionally disconnected" (Wagner, 2018). The keyword here is "intentionally" as the main focus of these ruptures is to restrict people's access to particular content that may be opposing the government's view, for instance, without caring for the fact that individuals can no longer interact with each other online. In Pakistan, "long-term communications shutdowns were exceedingly common since 2005…lasting for weeks or months, and taking place many times per year"

(Wagner, 2018). For an individual living in Pakistan, this can be quite concerning since they cannot contact their families to inform them about what is occurring there.

Internet regulation can be observed in the majority of countries around the globe despite the differences in the policies for each. This topic has its positive and negative aspects, but the negative characteristics outweigh the positives in some extreme cases. Because many governments want to control what media their citizens are consuming in relation to politics, this was one of the main motivations for the creation of internet regulation. The other factor that played a significant role in this was social media as more individuals are choosing to pass their time online; this can partially be attributed to the COVID-19 pandemic where people turned to the Internet for their sources of entertainment and staying connected during the strict lockdown measures. The consequences of attempting to strip people of their personal freedoms to privately browse online and removing their ability to communicate with others as a result of internet shutdowns will likely lead to generational resentment that may eventually lead to retaliation with future generations. This could possibly even lead to protests and acts of violence towards the government officials enacting such regulations. Since this is still a developing issue, some countries are still trying to tackle this while others have decided to implement their own solutions. France, for example, passed the 2015 Intelligence Act in order to control "secret state surveillance" in relation to the Internet and their law now includes rules regarding surveillance on a greater scale (Tréguer, 2016).

As the Internet continues to evolve and new technology is invented, it is important to keep people informed regarding internet regulation and work together to find useful solutions for each country. In the future, people will hopefully be more involved as the policymakers and political figures in various countries, creating better regulations that help keep everyone safe and their information protected.

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Mandala Coloring for Stress Reduction
by Habiba Mini

Abstract: In response to the global surge in stress and anxiety during the COVID-19 pandemic, the need for effective stress management strategies is crucial for the repair and restoration of overall well-being. This literature review aims to determine the effectiveness of mandala coloring on stress reduction intervention. Six experimental studies were selected, each featuring at least one experimental group undergoing a mandala coloring session. The majority of the selected studies employed a control trial experiment design to distinguish the impact of mandala coloring on stress. Empirical findings synthesized in this literature review reveal consistent decreases in levels of perceived stress and state anxiety after mandala coloring compared to control groups. The reductions were even greater when individuals were able to exercise their creativity with the freedom of color and image selection. These findings suggest that mandala coloring is a simple yet effective tool that can be used to reduce stress, promoting mental well-being in the face of stressful times.

Introduction

The COVID-19 pandemic has shed light on the importance of stress management and the repair of overall well-being. According to the World Health Organization, the pandemic has contributed to increases in anxiety and depression rates by 25% worldwide, attributed to many different stress factors including social isolation and fear (WHO, 2022). The seemingly endless pandemic has introduced new stressors into individuals' lives, highlighting the need for effective coping mechanisms. Prolonged exposure to stress can have harmful psychological and physiological effects on the body. Research indicates that long-term stress response can be damaging to the structure and function of the central nervous system (Schneiderman et al., 2005). Therefore, stress can exacerbate the risk of psychological issues such as depression and anxiety. Moreover, the prolonged activation of the autonomic nervous system can have physiological effects as well. When stress activates the sympathetic nervous system, there is redistribution of energy and blood flow where there is an increased supply to vital organs and a simultaneous decrease of blood flow to non-vital organs (Schneiderman et al., 2005). This redistribution can manifest as increased pulse, high blood pressure, elevated breathing rate, and reduced body temperature in extremities such as the hands and feet. Since the effects of stress are strongly present in psychological and physiological

systems, it is crucial to effectively reduce stress levels. As overall stress levels increase throughout society, many different stress reduction methods such as coloring, notably mandalas, have gained traction. But how effective can this simple activity be for regulating the bodily stress response? The present literature review aims to evaluate how mandala coloring can impact stress levels in individuals and assess its efficiency as a stress management tool.

Methods

The literature review was conducted using PubMed, Scopus, ScienceDirect, and Google Scholar through the Gutman Library database. Search terms used were "stress," "coloring," "mandala," "anxiety," and "mindful."

Six studies were chosen involving at least one experimental group undergoing a mandala coloring session. All studies, except one (Eaton & Tieber, 2017), involved a control group where no coloring activity was administered.

Literature Review

There have been several studies on the effects of mandala coloring on stress and other stress-related factors across different demographics. Amongst nurses in Hong Kong during the COVID-19

pandemic, Fong et al. (2022) found that a 20-minute mandala coloring session for 5 days yielded a remarkable 70% reduction in perceived stress compared to the control group. Similarly in other studies, stress was reduced after mandala coloring, but the stress was indirectly measured through other variables. One such variable that was shared by five out of the six studies was state anxiety, which measured unpleasant feelings of anxiety derived from the current situation as opposed to long-term anxiety (Akbulak & Can, 2023). Khademi et al. (2021) observed a decrease in state anxiety in COVID-19 patients in an Iranian hospital after 6 consecutive nights of 30-minute mandala coloring sessions. These results were especially compelling as the control group experienced an increase in state anxiety after the 6 days AS compared to the beginning of their hospital stay. Comparably, Akbulak & Can (2023) dounf that mandala coloring prior to chemotherapy decreased state anxiety in individuals in early stages of breast cancer, particularly among patients with initially high levels of distress.

Similar results were observed in an undergraduate population where the intervention-group colored mandalas for 7 minutes while practicing focused breathing, an exercise that involves breathing gently and evenly (Muthard & Gilbertson, 2016). This same study also observed a decrease in heart rate, but no significant changes in systolic blood pressure (Muthard & Gilbertson, 2016). Sandmire et al. (2016) also studied college aged participants and found a decrease in state anxiety compared to the control. However, this study found that anxiety was reduced the most in the intervention group that performed free-form painting, an activity with low levels of structure and direction, compared to mandala-coloring which has a higher degree of structure and direction. They also observed an increased vagal score, or the measure of how relaxed an individual is, in all intervention groups performing an artistic task compared to the control.

Moreover, Eaton & Tieber (2017) observed an interesting impact of color choice with the effectiveness of stress-reduction in college students. They found that subjects with the freedom to choose their colors had significantly lower levels of anxiety compared to the individuals who were forced to copy the colors of a picture. However, both groups exhibited decreased negative moods and increased positive moods after the coloring session. On top

of the interesting influence that color choice had on mood and anxiety, they found that participants who had creative freedom of color choices tended to spend more time on difficult tasks compared to the latter. These findings collectively offer insight into the effectiveness of mandala-coloring on stress reduction.

Implications

The results from this literature review support mandala coloring as an effective intervention for stress management. The integration of mandala coloring in clinical and educational settings has proved to be a soothing activity for individuals prone to stress, including nurses, patients, and college students. In addition, the studies suggest that other free-form artistic crafts may yield greater reductions in stress and anxiety than mandala coloring, where any color and images can be created. This could be due to the focus on creativity, which divert attention away from present stressors, thus creating a sense of relaxation. Overall, coloring is a cheap, engaging, and accessible tool for stress relief for individuals across the world.

Limitations

While the findings from these studies are very promising, there are some limitations that should be considered. Firstly, all six studies included in this review were performed on a fairly small sample size, ranging from only 37 to 85 participants. Due to such a small sample size, the results are not representative, and caution should be exercised when applying these results to a broader population.

Moreover, three of the six studies were conducted in either America or Canada. Because half of the studies were done in Western societies, ethnocentric biases may be present in the findings. The remaining three studies were conducted in Hong Kong (Fong et al., 2022), Iran (Khademi et al., 2021), and Turkey (Akbulak & Can, 2023). To ensure representative results across the globe, future studies should investigate the effects of mandala coloring on stress levels in missing areas such as Africa, South America, and South Asia to account for potential influences from different cultures.

Lastly, reviewed studies did not account for external factors that may influence results such as caffeine intake and sleep patterns. Given the known effects of

caffeine, pulse and feelings of anxiety can skew the data. Without the considerations of such variables, the findings may not be reliable. Therefore, in future studies, such factors should be accounted in data analysis to see if the effectiveness of mandala coloring on stress reduction is altered based on other external factors.

Conclusion

In conclusion, the literature review supports mandala coloring as an effective stress reduction method. This engaging and relaxing activity can serve as a creative outlet and temporary diversion from the pressures of daily life or even larger stressors. Moreover, the simplicity of mandala coloring makes it adaptable so it can be implemented in various high stress settings, including hospital waiting rooms and university lounging areas. To further support the efficacy of mandala coloring, more research and data are needed to address the large gaps in diversity within the study populations. By expanding the scope to encompass a wider range of cultural contexts, a more comprehensive understanding of the effects of mandala coloring on stress can be achieved. Overall, mandala coloring is a promising stress reduction method that is feasible for various settings.

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Design, Engineering, and the Built Environment

Psychology in Architecture as a Path to Sustainability

by Auriel Lewis

Psychology in Architecture as a Path to Sustainability

Research Question: What role does psychology play in the built environment and how can it be integrated intentionally to promote mental and social health in the quest for a more sustainable future?

Mental Health in the US

Statistic

"An estimated 70 percent of adults in the United States have experienced a traumatic event at least once in their lives and up to 20 percent of these people will develop post-traumatic stress disorder (PTSD)." (Anne Marie Garcia, 2020)

Trauma Informed Design

Trauma is a response to a time or event where there was distress and ones ability to cope was overwhelmed (Anne Marie Garcia, 2020).The term is used to describe physically or emotionally harmful experiences with deep rooted impact. It is estimated that over 60% of American adults have experienced some form of trauma. Included in these experiences are racism, discrimination, gentrification, housing displacement, pandemics such as Covid-19 and systematic traumas such as mass incarceration and red lining (Preservation of Affordable Housing, 2023). Overall there are many experiences of trauma and trauma has become built into the built environment

Design for Healing

Within design there is a responsibility towards creating spaces which promote healing and well being. Trauma shapes peoples experiences and is widespread and ingrained, therefore design can be used to actively address this. Healing in society is achieved through intentional and targeted design, addressing multiple levels of need. Equity, as well as recognizing the basic human need of belonging and esteem contribute to showing people dignity within design.

https://traumainformedhousing.poah.org/what-is-trauma-informed-design

Current

Statistic

"Trauma is a leading health concern in the U.S., where 61% of adults have had at least one adverse childhood experience" (University of Denver Center for Housing and Homelessness Research)

Trauma can be experienced on multiple scales. Psychologically, trauma causes the amygdala which is the emotional and survival center of the brain, to go into overdrive. There can also be reduced activity in the hippocampus which creates a state where it is hard to differentiate between the actual traumatic event and the memory of it (Grabowska, Sam, et al. 2021). As it relates to architecture, without having an understanding of trauma new designs may be built that trigger or perpetuate trauma. This can be done through uncomfortable thermal environments, lack of security, disruptive sounds and harmful material choices (Grabowska, Sam, et al. 2021). Design needs to address the atmosphere and environment of a space which can be understood through psychology and understanding how people think, work and feel in spaces. Through this the experience begins to be shaped and trauma can be addressed through design.
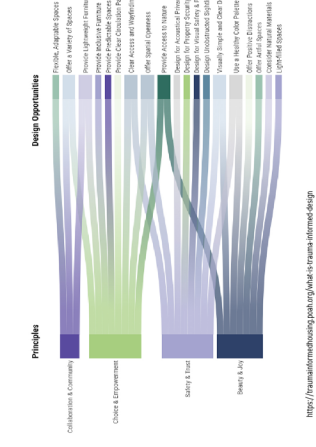
Implementing design practices that take into account Maslows Hierarchy of Needs will aid in creating spaces that improve peoples lives. Currently healthcare facilities have started to implement psychology into the thought and layout behind hospital rooms as a way to aid in the healing process. Hospitals are environments where healing is at the center of the goal and therefore architectural practices have now been purposefully implementing green spaces which increase happiness and tranquility. Architecture, psychology and human anatomy are combined to aid in self healing and act as a example of how different focuses can begin to be combined in a mutually enhancing relationship. Visual connection to nature has been proven to increase the speed of healing as well as improve mood. Implementing color theory into hospitals has also been prevalent as green is commonly equated to tranquility and health. Thoughtful layouts that allow for privacy or offer easily accessible spaces for therapy and counseling can also contribute to mitigating the effects of trauma (Aastha Trivedi, 2022).

Need

Mental Effect of Poor Design

"80% time spent in doors in artificial environments" (Stefan TEDx, 2016).

Maximize Human wellbeing

" ….the enjoyment of scenery employs the mind without fatigue and yet exercises it, tranquilizes it and yet enlivens it; and thus, through the influence of the mind over the body, gives the effect of refreshing rest and reinvigoration to the whole system" (Olmsted, 1865)."

Necessity of Beauty and Nature

The living building challenge is an evolving program taking into account feedback from stakeholders. This format and framework provides a list of tips or ways to generate sustainable projects that promote a healthy future. Many of the guides and outlines presented in the guide contribute to environmental and social sustainability. Instilling beauty in design can begin to impact human spirit and beauty in this sense is not wholly aesthetic but is determined by the intent to improve peoples lives (International Living Future Institute 2019). Nature and beauty is a design value that needs to become embraced. Nature can be implemented in form, visual connection and through light and color. Maintaining a view of daylight and the outdoors is recommended for 75% of regularly occupied spaces(International Living Future Institute 2019). Incorporating the principles of nature's beauty into architectural and interior design can significantly enhance the aesthetic appeal, functionality, and overall well-being of indoor spaces.

Statistic

"Traumatic stress can be toxic, altering brain development and affecting a variety of physiological systems" (University of Denver Center for Housing and Homelessness Research)

Negative effects of trauma often can be mitigated and if applied correctly, architecture offers a clear vessel for this mitigation (University of Denver Center for Housing and Homelessness Research). Additionally, architectural design that considers the principles of trauma-informed care—such as creating non-institutional, calming environments and incorporating elements that empower individuals' sense of control and choice—can play a crucial role in supporting individuals affected by trauma. In essence, architecture can serve as a powerful tool for mitigating the negative impacts of trauma by creating spaces that are conducive to healing, comfort, and resilience. When architects integrate principles of trauma-informed design into their work, they have the potential to positively impact individuals and communities affected by trauma.

Maslow's Hierarchy of Needs
- **Self Actualization**
  - **Desire to become the most one can be**
- **Esteem**
  - **Respect, self-esteem, status, recognition, strength, freedom**
- **Love and Belonging**
  - **Friendship, intimacy, family, sense of connection**
- **Safety Needs**
  - **Personal security, employment, resources, health, property**
- **Physiological Needs**
  - **Air, water, food, shelter, sleep, clothing, reproduction**

The standardization of interior spaces is evident, yet man-made indoor environments will always fall short in comparison to the dynamic richness and complexity found in nature and outdoor settings. Sensory deprivation is a reality of a lot of the population and this repetitive interior nature becomes negative and decreases elasticity in the brain. Everyones physiological needs and wants are different however the same stimuli over an extended period of time does not have a beneficial effect. The brain desires stimulation. Cubical and sterile office spaces have been evaluated as providing less productive environments and decreasing drive to produce, create and have self improvement. The space we live and work in can either motivate and excite us or lower our spirits and decrease productivity. A poorly design space can have numerous negative effects.

There needs to be elements of choice and intrigue without it being overwhelming or over stimulating. Biophilic design has been proven to reduce levels of stress and improve cognitive function and creativity- overall nature elicits a restorative response. Workspaces and workflow begins to be maximized when spaces are well ventilated and with access to natural light; overall this increases productivity and morale. Psychology of architecture pushes for more user centered design and uses perception and emotional understanding of space to highlight the needs of the human experience.

The connection between beauty and biophilic design is integral to addressing a society shaped by trauma and understanding psychology and how people view their spaces begins to reveal how spaces can be designed to be more socially sustainable; providing spaces people want to be in but also spaces that have a positive impact. The four traits needed for trauma informed design are safety & trust, choice & empowerment, community & collaboration and beauty & joy (Preservation of Affordable Housing, 2023). Each of these elements are concepts that should be considered in the design process and trauma informed design should be the standard of all projects as there is trauma ingrained in the built environment.

https://www.thedecorjournalindia.com/psychology-of-architecture-impact-of-spaces-on-our-behavioral-and-emotional-patterns

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Auriel Lewis

Design, Engineering, and the Built Environment

Thesis: *In order to foster a society that is thriving, not merely surviving, the reality of trauma on various levels needs to be targeted and taken into account in the design process. Architecture has the ability to become a source of healing mentally, physically and emotionally through human's daily interaction with space.*

What is Social Sustainability: Social sustainability is based in maintaining and improving well being of a community, this aspect of sustainability is people centered and goes beyond meeting basic needs; creating opportunity for a better life

Intro: Psychology plays a crucial role in the built environment by influencing how people perceive, interact with, and are affected by their surroundings. Integrating psychological principles into the design of the built environment can significantly impact mental and social health, contributing to a more sustainable future through stress reduction tactics, social integration and color and light. Architecture remains a subconscious element in our minds with a large impact on day to day life and activity.

Community Impact
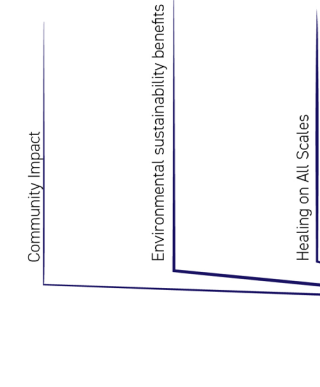
Psychology based architecture pushes against capitalistic views of living and reinforces a socially sustainable environment. Over time architecture has become more isolated and homes have become tools for storage of wealth (Erik Villagomez). Decreasing isolation and increasing the amount of gathering and social exchange spaces fights against capitalistic views and instills a more socal framework. Central space such as courtyards promote interaction and provide spaces for community events, meetings and activities (Elif Ayse Fidanci, 2023).

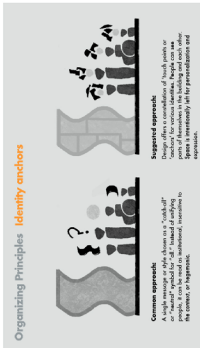## Environmental sustainability benefits

Biophilic Design

Across many cultures, ethnicities and ages, landscape becomes a form of preference (William Browning, Catherine Ryan, Joseph Clancey, 2014). Contact with nature most directly impacts youth, contributing to increased self-esteem and in both youth and elders there is an overall positive and restorative effect of green infrastructure in urban environments. Looking at a beautiful scene of nature has been found to activate the nerve cells that produce natural painkillers (Ester Sternberg MD, 2014)

Mobility

Rather than rushing through life, taking time to fully take in the perceptive elements present in design such as light, sound and pathways of discovery can all lead to small scale impact and stress reduction. Memory, thoughts and beliefs for each individual aid in emotional impact of space. Labyrinth walks are an architectural practice which integrate more purposeful breathing and intentionality in daily mobility. Labyrinth paths have one path and have been implemented in architectural landscapes and promotes slowing down (Esther Sternberg, 2014).

Action Steps

Understanding the context and history of a community gives insight into how to best address the design needs of a community. The cultural context, environmental context and lived experiences all play into building spaces of impact. Pride in ones space is amplified through inclusivity and ownership. If people can see themselves in their environment then there is a sense of pride and connection.

Worth and dignity is shown through the spaces created

Smaller scale intervention

Integrating more walking and bike paths creates a more pedestrian oriented community and reduces use of vehicles (International Living Future Insitiue, 2019). Integration of bike share systems, electric vehicle stations and more integrated transit creates user centered infrastructure that promotes mobility. Being intentional about spacial layout with clear circulation helps reduce confusion and disorientation which can add to anxiety and stress in an individual. (Elif Ayse Fidanci, 2023).

Comfort

Architecture allows users to process sensory information through their bodies. (Grabowska, Sam, et al. 2021) Thermal temperature has a large impact as well as providing a sense of safety, inproving self esteem and confidence in ones environment. A comfortable temperature can positively influence mood, productivity, and the overall experience within interior spaces, ultimately reinforcing a sense of contentment and assurance.Implementing a sense of choice in ones environment also gives users the ability to have an element of control, which can be calming and grounding.

"Artwork, murals, and other forms of creative expression can help to create a welcoming and inspiring environment, while also serving as a form of self-expression and empowerment." (Elif Ayse Fidanci, 2023)

Green Infrastructure

Understanding the ecology of place enhances the function of the community but also encourages ecological regeneration. Green infrastructure creates space for physical activity and improved cognitive function (Elif Ayse Fidanci, 2023). The place and space we inhabit can begin to keep us well but it can also do the same for the planet.

Grabowska, Sam, et al. 2021

Precedent

Resources: Trauma informed Design Toolkit
https://traumainformeddesign.org/resources/trauma-informed-design-research-and-resources/

- Design for Security
- Design Visually interesting and clear design
- Design for Spacial Openness
- Design for acoustical privacy
- Design for Visual Privacy
- Design with Clear Paths and Circulation

Productive Architecture

Reclaim the Urban Landscape
- utilize abandoned green spaces
- **Find small interventions of nature**
- Address pollution in waterways
- **Instill natural systems whose use will then lead to enjoyment**

Psychology of Color

https://www.thecolorjournalminds.com/psychology-of-architecture-impact-of-spaces-on-our-behavioral-and-emotional-patterns

Karis Apartments
Supportive housing for youth experiencing homelessness
Location: Colorado
- **Tall ceilings and atrium**
  - **Creates awe and inspiration**
- **Wood and natural elements**
- **Cafe-style library**
  - **Doesn't reinforce the power dynamic of a traditional reception desk**
  - **Clear Sight lines**

We must elevate our thinking and center architecture around physical, mental and social wellbeing. This can be acted upon through setting in placed new policy or standards of design for trauma. Designing wellness oriented spaces such as relaxation and meditation centers and finding small ways to integrate activity into common spaces.

Intentional Color Use

Color can become a very influential aspect of architecture because color changes ones perception and associations. For example blue has the emotional impact of being relaxing, yellow is associated with positivity and red has a exciting and stimulation effect. When strategically incorporated into environments, colors can profoundly affect emotions and psychological states, shaping the overall experience of a space (Shailee Bhatt, 2023). Therefore, the thoughtful application of color in architecture can be a powerful tool in creating atmospheres that evoke specific feelings and responses within individuals.

University of Denver Center for Housing and Homelessness Research,

Next Steps

Through this outline of psychology in design and trauma informed design the need and ability for architecture to not only house people but heal them (University of Denver Center for Housing and Homelessness Research). Through this intentional integration of multiple focuses of study but all with humans at the center; the built environment can create spaces for community to thrive and promote dignity and joy. (University of Denver Center for Housing and Homelessness Research). In a world of rushing, stress, anxiety and trauma; architecture can begin to carve out spaces and moments of joy.

Trauma is an individual concept and therefore how people experience space will also be different. One solution will not accommodate every individual however multiple tactics can be employed to make an overall positive impact to health and well being. Each of these spacial practices and techniques needs to take into account every scale of the demographic and take into account and areas histories and underlying traumas.

Neighborhoods, cities, states and regions

Impact

Organizing Principles identity anchors

Grabowska, Sam, et al. 2021

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Design, Engineering, and the Built Environment

Sustainable Conclusion: To integrate psychology intentionally into the built environment for mental and social health in pursuit of sustainability, collaboration among architects, urban planners, psychologists, and community stakeholders is essential. User centric and community asset based analysis is pivotal in effectively integrating practices that will positively impact the future health and well being of a community. Currently, psychology is implemented in architecture through hospital design and beginning to use color theory. In order to push this forward a framework for wide spread trauma informed design needs to be implemented. Trauma informed design addresses many psychological as well as social concepts that lead to overall healing and wellbeing.

Objectives

Strategies

Action Steps

Sustainability

Maximize Human Wellbeing

Promote Social interaction

Reclaim Urban Landscape

Address Trauma

Design to address mental health/ trauma effected communities

Community participation-dignity in design

Instill Empathy in Architecture

Color theory, light and strategies through sound and nature

Interior language

Architecture identity

Community engagement

Personalized adaptation

Art and murals to promote community

Variety of typologies

Parks and green space

Toolkits and Framework Guides

Living Building Challenge

Reduce isolated spaces and promote social engagement

Design of adaptable spaces

Beauty integration

Bikes, carpool, public transport stations

Material selection, color selection

Creation of spaces of rest

Integration of landscape and the built environment

Focusing on daylight

Incorporating daylight, views of nature, and spaces for physical space

Use of local materials

Policy

Incorporating meditation into garden and outdoor pathways

Implementing greenery into projects for mental, physical health and protecting the environment

Personal environment to public city scale

Human-Centered Design - User-Centric Approach

Holistic Design - Core Principles, green infrastructure

Mentally Interesting Spaces, mental healing, using place to create emotion

Biophilic design, Beauty instilled spaces, reconnect to nature

Design, Engineering, and the Built Environment

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