



# The Dark Side of Internet Searches: A Macro Level Assessment of Rape Culture

David A. Makin<sup>1</sup> & Amber L. Morczek<sup>2</sup>

Washington State University, United States of America

## Abstract

*Assessing the pervasiveness of rape culture in society or merely establishing at an empirical level the degree to which a nation reflects such attitudes or behaviors has remained of interest to scholars across numerous disciplines. One common limitation (or criticism) within prior empirical research is claims of lack of generalizability or influences of social desirability. This research employs the use of Google Trends data from 2004-2012, via nine keyword searches specific to rape-oriented pornography. We also include interest in the top five pornographic hubs. Findings suggest that there is both an interest in rape-oriented pornography and that interest across many search queries appear to be increasing.*

Keywords: Rape Culture, Internet Search Queries, Google Trends, Macro Level Assessments, Pornography.

## Introduction

.28 seconds, the total time the Google search engine takes to deliver nearly one-hundred thousand websites for the search query “*best rape scenes*”. The intent of this statement is not to reflect in availability of material or suggest the search reflects those looking for, in fact, the best rape scenes. Rather being able to identify these search queries and track the trends and popularity of user queries is methodologically worthy of inquiry. Researchers agree the Internet is an influential source of acquisition and replication of norms, behavior, and attitudes (Jaishankar, 2008; Yar, 2006). The evolving nature of these networks have fundamentally influenced production of knowledge, distribution of tasks, and activities society engages, shaping the perspectives of generations of individuals (Castells, 1996). While research continues to study the relative strength of the Internet within acquisition and reinforcement, it has remained a consistent source of interest within human development (Greenfield & Yan, 2006). Having access to track interesting search queries overtime or following specific events presents as an important source of data, one that may undoubtedly provide new insight into human behavior.

Currently there are ~275 million Internet users in North America and ~2.4 billion Internet users globally (Miniwatts Marketing Group, 2013), making the study of this tool incredibly relevant to social scientists. Introducing new methods has the capacity to benefit

<sup>1</sup> Department of Criminal Justice and Criminology, Washington State University, Johnson Tower 721, WSU Pullman, WA, USA. Email: dmakin@wsu.edu

<sup>2</sup> Department of Criminal Justice and Criminology, Washington State University, Johnson Tower 721, WSU Pullman, WA, USA. Email: amber.morczek@wsu.edu

and reinvigorate discussion on sexual violence and foster the emergence of new perspectives. The increasing use of the Internet and resulting immersion into the daily lives of users would prove an important data source, specifically if the data allowed a longitudinal analysis, which controlled for population changes. For example, if Internet queries for “*how to be a better parent*” gradually increased 50-percent over a ten-year period, or “*racist jokes*” decreased 35-percent, a nation and its people would offer signs of change.

In the past, access to violent, heterosexual pornography was largely limited to pornographic magazines or dark curtained rooms in video stores. Growth in the Internet and diverse nature of Internet users has fostered spread of not merely pornography, but the growth of niche pornography. As pornography becomes more socially acceptable, accessible, and marketed to wider audiences, its role in perpetuating misogynistic behaviors and attitudes thereby increases (Jensen, 2011; Picker & Sun, 2008). Scholars have suggested that pornography has a prominent feature within acquisition of behaviors and attitudes that correlate increasingly with acceptance, reproduction, and transference of what scholars have voiced as ‘rape culture’ (Miller & Biele, 1993).

Conceptualized and widely studied across disciplines since the late 1980s, ‘rape culture’ research concerns itself with operationalizing, evaluating, and mediating acquisition of the associated attitudes, behaviors, and norms correlated with violence against women (Herman, 1989). Researchers suggested that violence against women is multifaceted; reflecting the interplay between personal, situational, and socio-cultural factors (Heise, 1998, p. 263). The research took multiple paths, but as Heise (1998) offers, it was important that scholars understand the primacy of culturally constructed messages promoting and promulgating violence against women in a society. Therefore, it was important to understand further the acquisition, modes of transmission, and reinforcement of these intricate markers (attitudes, behaviors, and norms) for rape culture.

The resulting research produced important insight into rape culture and sexual violence. Researchers have explained the characteristics reflected at a micro and macro level for prolongation of misogyny and manifestation of rape culture in society. However, accurately measuring individual characteristics within the current studies is limited to survey instruments and focus groups, or at a macro level, official crime statistics, surveys of victims, or content analysis of popular media. Despite remarkable research, the extent to which we are empirically able to assess the degree in which a state or nation displays characteristics of rape culture is cited for lacking generalizability (Klaw et al., 2005). While scholars such as DeKeseredy and Schwartz (2011) have developed and improved the instrumentation used within self-report surveys, discovering new insight on rape culture, some have questioned the trustworthiness surrounding these studies. For example, Brosi et al (2011) and Edwards (2009) state the inability for males to admit to what are socially unacceptable behaviors and attitudes (social desirability) and classification issues, as methodological concerns within current survey instruments and interview techniques. Another claimed limit includes tangible issues of generalizability, as the data have been unable to apply to “larger and more demographically diverse populations” (Klaw et al., 2005, p. 62).

Recognizing that social desirability, generalizability, and classification issues have been methodological sources of critique for prior studies, this research introduces a new data source, specifically Internet search queries, to offer a new platform of inquiry. Despite being a new data source, Internet search queries have become a prominent and integral

data source within multiple disciplines, including *Political Science* (Reilly, Richey, & Taylor, 2012; Ripberger, 2011; Scharkow & Vogelgesang, 2011; Weeks & Southwell, 2010; Belanger & Meguid, 2008), *Epidemiology* (Althouse, Ng, & Cummings, 2011; Ginsberg, Mohebb, Patel, Brammer, Smolinski, & et al., 2009), *Health Care* (Reis & Brownstein, 2010), *Consumer Behavior* (Goel, Hoffman, Lahaie, Pennock, & Watts, 2010), *Suicide Studies* (Marhan, Saucan, Popa, & Danciu, 2012; McCarthy, 2010), and *efficacy based studies within the social sciences* (Scheitle, 2011).

Recognizing that a user can type in any query into a search engine, specifically a search often from the comfort and privacy of a user's home, our research used fourteen specific search terms within three groups. Our purpose is to introduce this data source and empirically assess the associated interest within rape-oriented queries from a longitudinal perspective. So far, no research has explored the associated interest in search queries. Through our research, we intend to introduce the trends associated with each query and place interest in these queries within current theoretical research. As prior research has connected interest in this material, as a proxy measure for rape culture, we use this as our theoretical frame to start and invite other scholars to consider how it situates within other theoretical models.

### Literature Review

Theoretical explanations for the degree of sexual violence and other gender-linked crimes experienced in a nation have uniquely reflected three macro level measurements: gender inequality (Sanday, 1981), social disorganization (Baron & Straus, 1989), and cultural legitimization of violence (Smith & Donnerstein, 1998; Baron & Straus, 1989). At a micro level, explanations have highlighted deviant sexual arousal (Abel, Barlow Blanchard, & Guild, 1997), use of pornography (Zillman & Bryant, 1982; Dworkin, 1981; Brownmiller, 1975) psychiatric disorders (Hockett et al., 2009), and cultural explanations (Brownmiller, 1975).

The connection between both the macro and micro have fostered a healthy debate, providing policy implications, crime prevention programs and strategies, and aiding in identification of emerging trends and associated issues within gender-linked crimes. These macro level explanations have proven valuable to understand the complex relationship between societal, cultural, and individual factors promoting sexual violence. The resulting interaction between the macro level measurements has become prominent and increasingly important in both domestic and international research on sexual assault, especially, research concerning displaying, promoting, and preserving a culture actively or passively reinforcing sexualized violence against women.

Jensen (2011) and Klaw et al (2005) extend culpability for violence toward women to our current cultural framework that frequently pardons and normalizes sexual violence, emboldens perpetrators, and blames victims. Making this controversial declaration seems decidedly contrast to the idea of progressive Western ideals, as it is certainly difficult to imagine the very fibers of our cultural fabric as conducive to these egregious acts (Franiuk et al., 2008; Jensen, 2011). An act that is illegal and immoral. However, the controversy surrounding the Steubenville rape case (Valenti, 2013), the prevalence of sexual assault in the military (Dick, 2012), and research involving post-rape suicides (Dusenbery, 2013), both bring up new questions and reintroduces old ones. Unfortunately, some of those new questions lack answers. Therefore, developing new methods and further confirming prior

research become important. Specifically, to understand how victims, perpetrators, and violence itself are framed in modern society.

Miller and Biele (1993) keenly point out that in a rape culture, “sexual violence is sanctioned, at worst taught, and at best excused” (p. 51), which creates an unrelenting atmosphere in which “sexual violence is a fact of life, inevitable as death or taxes” (p. x). One of the most important factors leading to sustainment of this cultural dynamic is the intergenerational transmission of rape supportive beliefs. Beliefs providing encouragement for violence toward women or one, which encourages, trivializes, and romanticizes male aggression and female subservience (Jensen, 2011; Fletcher, 2010; Flood & Pease, 2009, & Valenti, 2010). A rape supportive culture changes interpretations of what constitutes rape as well as the responses to victims and perpetrators alike. The result of these rape supportive cultural attitudes include, but are not limited to, marked underreporting of sexual assault, less compassion or support for rape victims, and lenient treatment of offenders (Flood & Pease, 2009, p. 127). The cultural belief systems support the idea of gender-based violence and construe its many forms as normative and justifiable. In addition, this system cleverly shifts the blame from perpetrator to victim fostering rape myths (Burnett et al., 2009; Edwards, 2009; Flood & Pease, 2009).

Rape myths concern inaccurate depictions of responsibility in sexual assault, shifting blame to the victim while justifying the offender's actions. These myths often act to absolve the perpetrator of blame, including reducing or trivializing the act itself (Brosi et al., 2011; Hockett et al., 2009, Franiuk et al., 2008, Suarez & Gadalla, 2010). This accusatory framework suggests, for example, the victim was “asking for it” either by behavior or appearance, was lying about the circumstances of the sexual encounter, or could have prevented the act actively or passively (Chapleau, 2008; Cook, 2012; Flood & Pease, 2009; Franiuk et al., 2008, p. 288; Kahlor & Eastin, 2011). Therefore, this false conceptualization promotes the idea that rape is usually avoidable if certain precautions are undertaken (Chapleau, 2008). In other words, the “don’t get raped” (as opposed to “don’t rape”) or the self-protective ideal lends itself nicely to blaming the victim and absolving the perpetrator of reasonability. Cultural adherence to rape myths are likely the result of the need to preserve predictability and self-protection; “good things happen to good people, and bad things happen to bad people” (Franiuk et al., 2008, p. 289). These cultural misconceptions and miscalculations of sexual violence allow us to distance ourselves from the idea that we have been or could be victims or perpetrators of sexual assault.

#### *Internet-Based Pornography and Violence*

Mass media and popular culture specifically that found on the Internet offers new and ever expanding opportunity to reinforce and reinvigorate rape culture. Scarcely veiled undertones of sexualized violence and women’s sexual subservience as well as tropes encouraging violence toward women are common in mainstream popular culture, especially that found in pornography (Dines, 2010; Jensen, 2011). If violence toward women is encouraged by mainstream media, it is undoubtedly being spread by pornography as the link between aggression, violence, and sex is likely most noticeably accessible within that medium (Dines, 2010).

Consumption of pornographic materials is undoubtedly becoming an increasingly socially acceptable practice. Evidence of this acceptability reflects the substantial industry

growth with pornographic content amalgamating into a 97 billion dollar global industry in 2006 (DeKeseredy, Muzzatti, & Donnermeyer, 2014; Dines, 2010; Ogas & Gaddam, 2011). In fact, Ogas and Gaddam (2011) note that, “It’s hard to imagine a more revolutionary development in the history of human sexuality,” especially for men, as men are the primary consumers of pornography (p. 8). especially for male consumers, as men account for most heterosexual pornography consumption (p. 8). This is not to say that women do not consume pornography. Rather that heterosexual men account for a large segment of the consumer base (DeKeseredy & Olsson, 2011). This is perhaps best represented by data from CCBill, a billing service used by sites in the adult entertainment industry. Only 2% of credit cards used to buy online pornography are charged to women and of those 2%, many are considered fraudulent in which a man is using the card to view pornography without explicit permission from the cardholder (Ogas & Gaddam, 2011, p. 24).

Given the widespread intake and rapid development of new pornographic outlets, culturally it seems that men, and to a lesser extent, women, are socialized from an early age to view sexual behavior through a very explicit and often narrowed lens. A lens which lends itself to desensitization to not only sex, but sexualized violence (Argiero et al., 2010; Dines, 2010; Tankard-Reist & Bray, 2011). Furthermore, consumption of pornography leads to commodification of the female form, as the body is objectified, dehumanized, and commoditized on a massive, wide-reaching scale for sexual pleasure (DeKeseredy & Olsson, 2011; Jensen, 2011).

Research suggests tolerance for explicit sexual content may reflect, in large part, to the Internet. Internet access provides a means of making pornographic content easily and anonymously accessed for little expense, if any at all (Attwood, 2005, Fisher & Barak, 2001; Short, Black, Smith, Wetterneck, & Wells, 2012). In addition to making materials more readily accessible to a wider demographic of consumers, the rapid growth of the Internet simplified locating violent niche pornography. Niche pornography portraying sadistic forms of sexual violence and occasionally, even sexualized, physical torture (DeKeseredy & Olsson, 2011; DeKeseredy et al., 2013).

With the ease in which Internet queries can be performed and tailored to specific content an idiom emerged – reflected in Internet Rule #34, “If you can imagine it, it exists in Internet porn” (Ogas & Gaddam, 2010, p. 7). In reference to mainstream portrayals of sexualized violence, mainstream pornography companies have displayed cautionary warnings and held “debriefing” sessions following these types of scenes. However, the growth in this niche pornography, in a commercialized environment, suggests that marketing and production reflects intent to meet demands of consumers. Research suggests that production of this material and resulting desensitization to even more extreme forms of sexualized violence has increased demand. Demand the industry is struggling to keep up with as their growing consumer base wants even more extreme versions of the material (DeKeseredy & Olsson, 2011; Dines, 2010, xvii). While violent pornography is a niche genre, several content analyses and other research efforts have expressed that violent content is not merely present in outlying forms of the medium. Rather this material can be found amass in mainstream forms of pornographic content as shown by examination of materials popular with consumers (DeKeseredy et al., 2013, Dines, 2010; Jones & Mowlabocus, 2009; Picker & Sun, 2008). As Dines (2010) keenly points out, what was once ‘hardcore’ is now mainstream (p. xvii).

Mainstreaming of sexualized violence and permeation of this content across media is an active research area. This active study of cultural diffusion includes Bandura's Social Cognitive Theory of Mass Communication (2001). As Bauserman (1996) writes, mass media serves to guide conduct and link consumers to networks. The success of these links specifically improves when specific behaviors are incentivized, especially if those behaviors are socially acceptable and rewarded. Concerning the Internet, it is hypothesized that pornographic material holds the ability to shape the sexual behavior of consumers. Also, important are the millions more who are now growing up with steady access to pornography as a means of learning about sexual behavior and conduct. Further, annual conventions and award shows over the course of the last several decades has further promoted the mainstreaming of the industry. The pornographic industry while still contested may no longer be deemed seedy or illicit to the extent it had in the past. The influence of this mainstreaming is suggested to have wide reaching effects. The result of this mainstreaming promoted an exponential growth in the consumer base. Improvements in search functions, connecting users to the specific content they seek, have enabled user's unfettered access. In addition, search functions have the ability to reach those who may have traditionally abstained from viewing this pornographic content either by choice or circumstance (i.e. unreachability) (Bandura, 2001).

Another theoretical framework supporting the linkage between pornography consumption and violence toward women is male peer support theory. Male peer support theorists contend that large use and distribution of pornographic material creates and supports sexist peer groups. Groups where male dominance is reinforced along side the objectification of women (DeKeseredy & Olsson, 2011). Those supporting this theory would also suggest that such vast distribution of pornographic material riddled with violence against women would make it increasingly difficult for consumers to distinguish between sexual fantasy and reality. Thus, support is unduly given to a skew sexual ideals in which women are constantly "objects to be conquered and consumed" by men (DeKeseredy & Olsson, 2011, p. 40).

Working under the premise that pornography has permeated the wider popular culture, it is important to examine the literature on consumption of pornography on behavior, specifically sexual behavior (Gossett & Byrne, 2002; Prince, 1990). A review of both quantitative analyses and qualitative content analyses performed on pornographic content has found several key themes to be prevalent in mainstream, heterosexual pornography (Bridges, Wosnitzer, Scharrer, Sun & Liberman, 2010). First, verbal and physical aggression is commonplace, especially aggression perpetrated by men onto women. In fact, according to results from a content analysis of free adult Internet websites by Gorman et al (2010), 92 percent of videos included at least one instance of "exploitation or domination" of women (p. 131). Second, negative responses to aggressive actions were rare in content analyzed over the course of several studies with most victims responding in a subjectively favorable manner to both physical and verbal aggression (Bridges et al., 2010, Gorman et al., 2010, Prince, 1990, Picker & Sun, 2008). Third, the targets of sexualized violence and aggression in pornography are often objectified and dehumanized by way of placement in a submissive role. These roles depict and reinforce imbalanced power relationships between the individuals involved in the sexual acts (Prince, 1990). Fourth, research suggests that consumption of pornography, even mainstream heterosexual pornography, leads to increased public acceptance of rape myths, sexual violence perpetration and sex-

related criminal activity (Arakawa et al., 2012; DeKeseredy & Olsson, 2011; Diamond, 2009; Fisher & Barak, 1991; Gosset, & Bryne, 2002; Malamuth, Hald, & Koss, 2012; Hald, Malamuth, & Yuen, 2010). Additionally, research suggests that pornography may correlate to increased frequency of imitation of the same violent sexual acts commonly witnessed in mainstream pornography (Attwood, 2005).

Aggression and violence is prevalent in heterosexual pornography and like most forms of violence in all forms of popular media, men typically perpetrate violence, especially, sexual violence against women (Harrington & Neilson, 2009; Jensen, 2011; Salmon & Diamond, 2012). Research suggests that men are taught via heterosexual pornography that “all women always want sex from men, women like all sexual acts that men perform or demand, and any woman who does not at first realize this, can be persuaded by force” (Jensen, 2011, p. 30). As described by Glascock (2005), heterosexual pornography deems women as “anonymous, panting playthings, adult toys, dehumanized objects” and men garner a sense of power over treating women as such (p. 45). Accordingly, if mainstream versions of pornographic material have elements of physical and sexual aggression, explicitly violent niche genres are bound to push the envelope even more (Bauserman, 1996; DeKeseredy & Olsson, 2011; Ferguson & Hartley, 2009; Jensen, 2011, Malamuth et al., 2000).

Current market research suggests that pornography specifically and explicitly involving sexual violence is becoming more prevalent as producers work to manufacture more extreme legal material, an effort to keep up with consumer demand (Jensen, 2011; Picker & Sun, 2008). This demand coalesces around the advent of deliberately violent niche forms of pornography, purposefully portraying female performers being dehumanized, brutalized, and sexually assaulted (Tankard-Reist, 2011, p. xx). As Flood and Pease (2009) point out, sustained exposure to unambiguously violent forms of sexual content “increases male viewer’s acceptance of rape myths, desensitizes them to sexual violence, and shapes more callous attitudes toward female victims” (p. 135). Violent pornography even has an effect on female perceptions of sexual assault, leading to rape myth acceptance and decreased “bystander willingness” to assist a rape victim if a situation warranted (Brosi, 2011, p. 28).

Studies suggest that exposure to explicitly violent pornography increases the propensity to exhibit behavioral aggression and have self-reported an increased inclination toward rape (Flood & Pease, 2009; Malamuth, et al., 2000; Vega & Malamuth, 2007). A much more critical analysis, as offered by Jensen (2008) states, “pornography is propaganda for rape culture” (p. 25) wherein men are taught to “view sex as the acquisition of pleasure by taking women” (p. 27). However, that does not mean that pornography causes rape, as many consumers consistently seek out pornography and do not engage in sexual violence.

While a minor perspective in research, researches have indicated the positive attributes of pornography. Research suggests beneficial applications of pornography specific to couples, (i.e., improved sexual experiences, improved communication about desires and needs, and enhanced sexual arousal [see Paul, 2005]). The suggested sex-positive research is most associated with feminist pornography, eschewing traditional gender roles and providing positive and empowering atmosphere between actors. Additionally, research suggests that access to material may act as an outlet for behaviors, restraining acting on the desire (D’Amato, 2006).

## Methods

Recognizing this is an exploratory study, the intent of this paper is to 1) identify popular search queries theorized to portray ‘rape culture’, and 2) analyze the trends within those queries to explore the associated interest. To facilitate this macro level assessment, data for this project uses Google Trends. Google Trends aggregates queries entered into the search engine and provides a normalized output signaling the associated trend for searches relevant to the included search term over a specified period. Their data do not allow for frequency of searches (raw search total), rather allows researchers to evaluate how queries have changed overtime (i.e., has interest in the query “pornography” increased or decreased over the specified period). Additionally, Google collates search queries for all queries. Therefore, anyone who conducts a search is collected and the data collected does not represent those who have Google accounts. Rather, represents those who have conducted a search by way of the Google Search Engine. Data for this project includes search volume comprising the years 2004-2012 and is limited to the United States.

This research used fourteen search terms hypothesized to reflect interest in acquiring rape-oriented pornography. To test for content validity, each search term included an analysis of the top fifty associated search terms. Google provides a rank order list of the most commonly searched terms most often including the top fifty related search terms. Categorization of the search terms includes (1) Queries typified by the inclusion of “rape” or variations on “forced sex” videos, (2) Queries for material connected to cinematic portrayals of sexual assault, and last (3) Queries reflecting the top five ‘pornographic hubs’ and their associated interest overtime. Table 1 provides a complete list of the search queries performed.

**Table 1: Search Query Categorization**

Query #1: Rape Oriented Search	Query #3: Cinematic Portrayals of Rape	Query #4: Pornographic Hubs
Forced Sex Video	Rape Scenes	Pornhub
Rape Porn Videos	Rape Scene	Redtube
Free Rape Porn	Movie Rape Scene	Youporn
Free Rape Videos	Irreversible Rape Scene	Xvideos
Raped Porn		Xhamster

Quotation marks encapsulated each search query ensuring that a user would have entered that specific search term. It is for this reason that the Search Query table includes variations on “video” and “videos” or “scene” and “scenes”. The interface also provides “breakouts” or significant increases (250-percent) in queries associated with a specific search term. For example, as displayed in Table 2, the search query “Rape Scenes” produces rising searches within a rank order reflecting the following.



**Table 2: Rising Searches**

Rising searches for "Rape Scenes"	
movie rape scene	Breakout
rape scenes porn	Breakout
rape scene	250%
movie scenes	190%
rape movie scenes	150%
sex scenes	140%
rape sex	110%
movie rape	90%
rape in movies	40%
rape scenes movies	40%

To assist in exploring the efficacy within Internet search queries, as an empirical means of assessing interest in rape-oriented terms, we calculate a cumulative search frequency for each search term. Calculating the cumulative search frequency for each term averages the entire search volume and divides by the total data points. The total data points will vary based on search volume. Subsequently, some search volumes differ based on how Google Trend aggregates the data, be it weekly or monthly.

*Content Validity*

Content validity is important when using Internet search queries as general search volume can become increasingly important when assessing issue salience. In this regard, content validity within those searches, hypothesized to reflect intent to acquire rape-oriented material, must correlate with similarly related search terms used by those entering these specific queries. Google Trends assists researchers in testing for content validity, by providing the most commonly searched terms reflecting the original search. For example, those users who searched for “Rape Scenes”, most often searched for “Movie Scenes”, which originally may seem innocuous. However, the forty-nine remaining, most related search terms, reflect searches that are more descriptive. Table 3 provides the complete list of related search terms

Despite testing for content validity, there are always external threats, and specific to these search queries, current events had an influence on one of the search terms, “Rape Video”, which experienced increases coinciding with a series of events involving gang rape and video documentation of sexual assault. For example, the query experienced increases in search volume coinciding with prominent incidents, such as a news host in Trinidad airing segments of a rape video and the Steubenville rape video. However, as noted in the trend analysis, the associated use of this search query had experienced an increase over time, well prior to these events. Moreover, the top seven related search terms, reflect the following queries: “rape sex video (100)”, “rape sex” (95), “free rape video” (85), “free rape” (85), “porn rape” (85), “rape video porn” (85), “rape videos” (65). Additionally, the below list reflects the fifty top searches related to the query “rape video”. The bolded queries are those most likely suggested to reflect intent to find

material. Please note that those who had typed in “rape video” also used these queries. Note how low the Steubenville rape video is in the list of ancillary queries.

*rape sex video, rape sex, free rape video, free rape, porn rape, rape video porn, rape videos, girl rape video, real rape video, gang rape video, gang rape, real rape, teen rape, teen rape video, forced rape video, free rape porn, gay rape video, gay rape, free rape videos, anal rape video, rape scene video, anal rape, rape scene, lesbian rape video, lesbian rape, Steubenville, steubenville rape, forced sex, hentai rape, steubenville rape video, rape movie, hentai rape video, rape video download, rape movies, japanese rape, japanese rape video, xxx rape video, asian rape video, rape video clips, ohio rape, fantasy rape video, hot rape video, fantasy rape, ohio rape video, incest rape video, youtube rape video, ass rape, ass rape video, sexy rape video, rape video game.*

**Table 3: Top Searches for “Rape Scenes”**

movie scenes	100	celebrity rape scenes	10
movie rape	100	hollywood rape scenes	10
rape movies	100	rape clips	10
rape movie scenes	100	rape tube	10
rape scenes	100	irreversible rape scene	10
rape scene	90	best sex scenes	10
sex scenes	70	top rape scenes	10
rape sex	65	free rape videos	10
rape in movies	40	famous rape scenes	5
rape scenes porn	40	teen rape scenes	5
movie rape scene	35	anal rape scenes	5
movies with rape	35	real rape scenes	5
best rape scenes	35	graphic rape scenes	5
free rape scenes	30	brutal rape scenes	5
rape videos	30	film rape scenes	5
rape scenes videos	30	dailymotion rape scenes	5
rape scenes video	25	indian rape scenes	5
rape video	25	youtube rape scenes	5
movie sex scenes	20	gang rape scenes	5
watch rape scenes	20	black rape scenes	5
nude rape scenes	15	irreversible movie	5
hot rape scenes	15	sexy rape scenes	5
irreversible	10	hentai rape scenes	5
gay rape scenes	10	movie rape clips	5
forced rape scenes	10	prison rape scenes	5

## Findings

As prior research suggests, as pornography diffuses in society, more violent niche pornography should follow. Specific to the present study, we hypothesized that this diffusion would reflect queries made for violent oriented pornography, as measured by queries specific to rape-oriented pornography. We present the findings as graphs, as we believe this is a more suitable presentation method for the data. As discussed within the methods section, we urge caution in comparing the cumulative search index for each query.

### Query 1: “Rape-Oriented Search”

Results from the analyses of Query #1 include the search queries “Forced Sex Video,” “Rape Porn Videos,” “Free Rape Porn,” “Free Rape Videos,” and “Raped Porn.” Creation of these queries involved using the Google Trends program to identify the most commonly searched queries originating with the query “rape”. From this list, we selected queries that we believed most likely reflected queries that would connect to content, which we validated by entering these queries into a search engine. To avoid a potential bias, we examined the top related search queries to validate further each query.

The search query “Forced Sex Video” displays search interest starting in 2007 and as depicted in Figure 1 reflects significant interest in this search query, with two periods of limited interest, and then experiencing a strong return. The cumulative search frequency for this search query is 32.92. The search query “Rape Porn Videos” (Figure 2) did not begin until late 2007. However, it displays a significant interest, increasing with each following year, producing a cumulative search index of 27.53. One of the highest associated search queries, the phrase “Free Rape Porn” was most often associated with search terms for acquiring video material, experienced one of the earliest interests in mid-2005 and displays consistency. The cumulative search index for this item is 48.77. The query “Free Rape Videos” experiences the earliest interest, in 2004, and has moderate interest overtime. The cumulative search index for this item is 48.15. The final search query, “Raped Porn” is a rising query, experiencing consistent growth. Performing this query in a search engine reflects several websites oriented towards material of this type, that while not criminal, display variations on forced or brutal sex acts. Interest within this query emerged in early 2008 and produced a cumulative search index of 20.61.

Figure 1

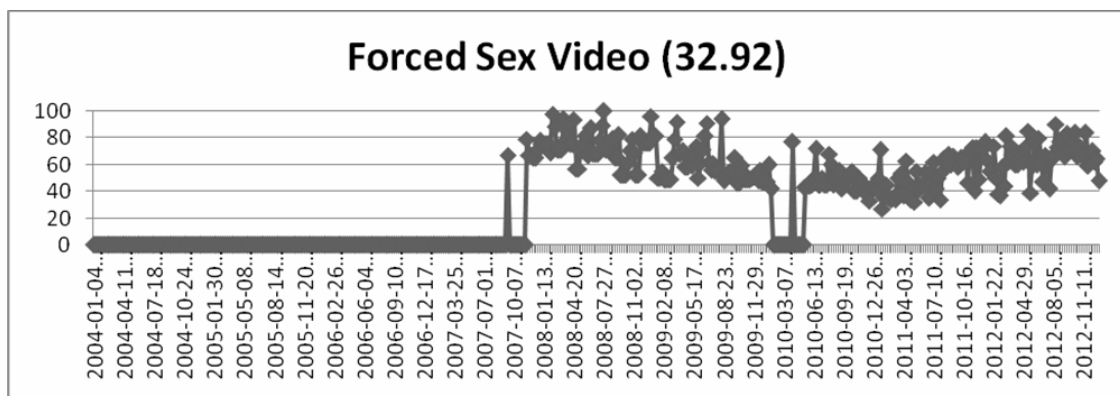


Figure 2

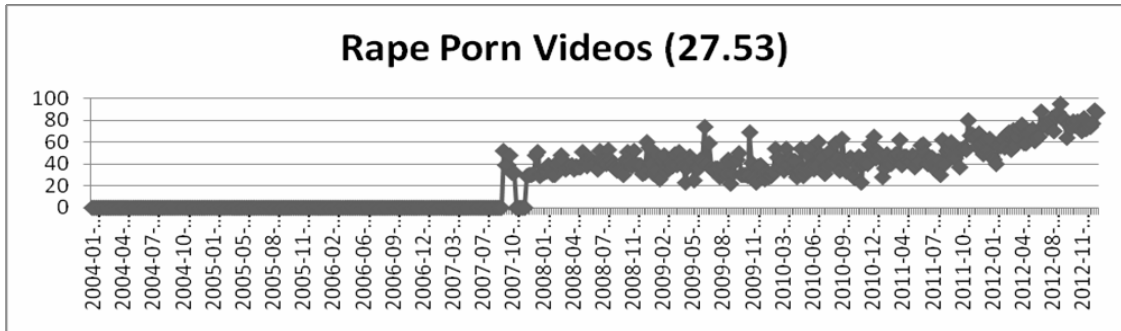


Figure 3

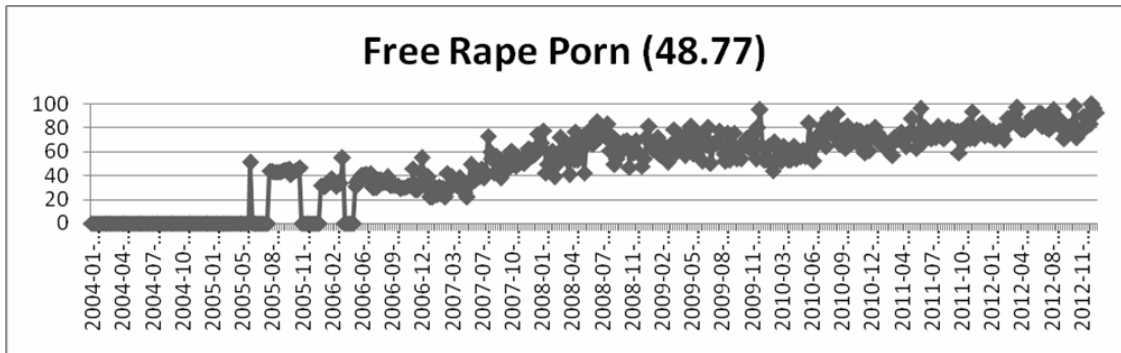


Figure 4

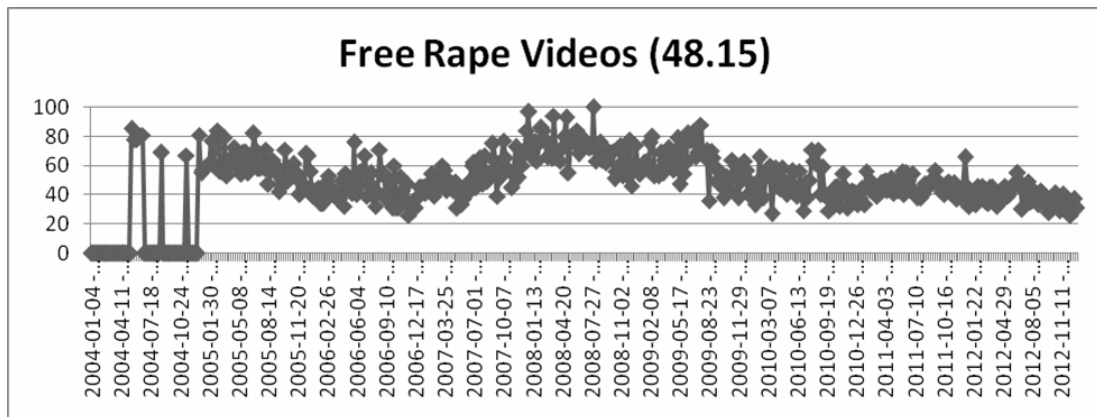
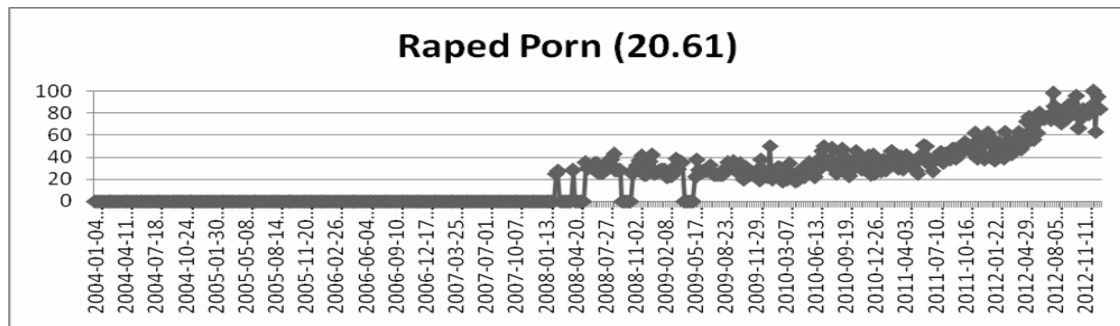


Figure 5



Query #2: “Cinematic Portrayals of Rape”

Query #2 reflects material connected to cinematic portrayals of rape, including “Rape Scenes”, “Rape Scene”, “Movie Rape Scene”, and “Irreversible Rape Scene”. The search query “Rape Scenes” (Figure 6) displays interest starting in early 2005 and experiences increases overtime. The cumulative search frequency for this query is 37.74. Figure 7 displays results from the variation on the prior using “Rape Scene” showing peaks in search interest in early 2007, mid-2008, and early 2012, until achieving moderate search interest. The cumulative search frequency for this query is 30.49. The following search query includes the descriptive addition of “movie”, and experiences extreme spikes of interest, experiencing a consistent and moderate interest trend in mid-2010. The cumulative search index for this query is 15.67.

A critical reader may inject that using search terms, such as “Rape Scenes”, may introduce bias, as there are legitimate reasons a person may use the term and not be looking for this material. This is a legitimate criticism. However, as noted in the rising and top related search terms, those most often performing this search query are also searching for related material. Both queries Rape Scenes and Rape scene experience rising interest as a search query. Moreover, to validate if these queries returned websites providing or directing users to this content. For example, an Internet query performed returns several websites, including one specifically focused on this subgenre of material and several websites ranking scenes and sometimes providing clips of specific scenes.

To illustrate this content, one website includes a clip of the film Irreversible, considered one of the most graphic portrayals of sexual assault in a mainstream film. Released in May of 2002, the film displays a rather lengthy anal rape scene of a female character. Despite release in 2002, the film did not display an Internet search interest until 2007. However, while the interest has experienced a dynamic shift, the relative interest is fascinating as interest in this scene has been consistent, post late 2010. The cumulative search index for this item is 14.51.

Figure 6

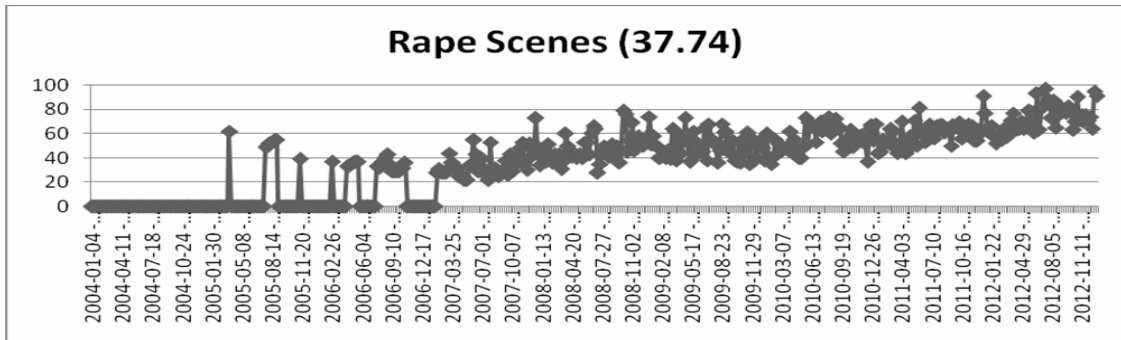


Figure 7

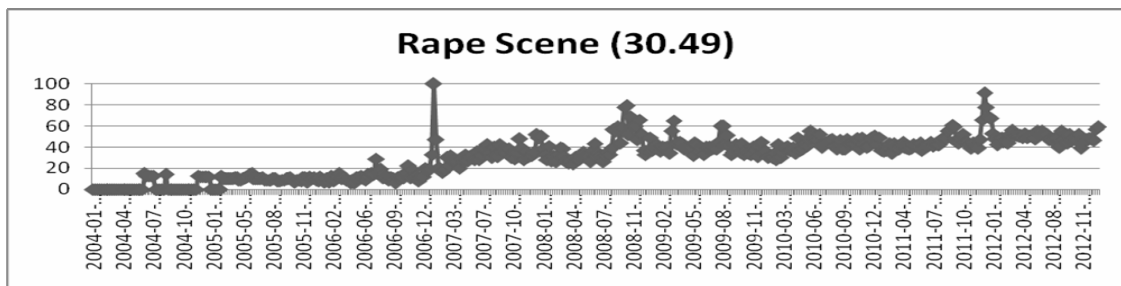


Figure 8

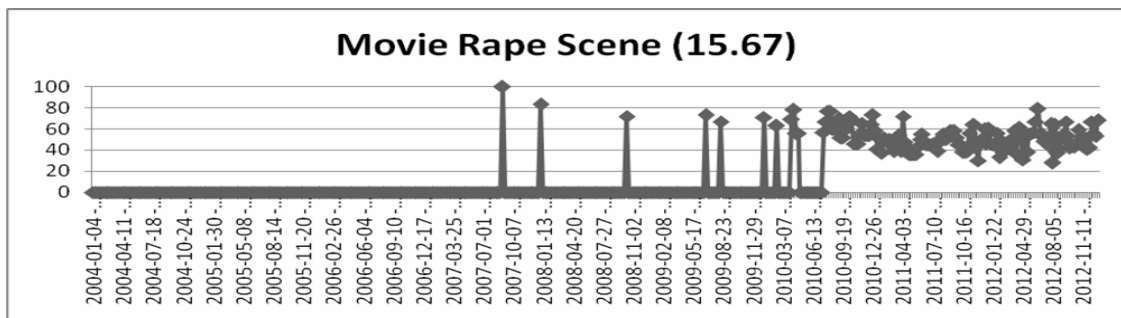
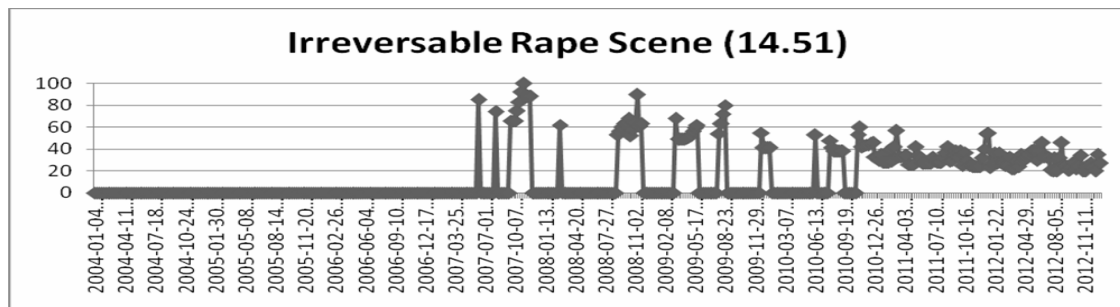


Figure 9



### Query #3: Pornographic Hubs

Pornographic hubs represent an important source of data for the study of search interest. The growth and specifically the increasing popularity of these websites represent an important source. These websites provide an easy means of accessing content, but more importantly, rank the most popular content and categorize content for much easier access by consumers. Providing both commercial and increasingly amateur video to users, pornographic hubs have risen to hold three spots in the top 50 most visited websites, five in the top 100 within the United States and within global rankings<sup>3</sup> (Alexa, 2013). A cursory look at these pornographic hubs via their website ranking and cumulative search interest display their increasing use and importance as a source of data. For example, the cumulative search interest has steady growth for three of the top five ‘hubs’. Figure 12 provides the associated level of interest as measured by queries, specific to each pornographic hub.

The most popular pornographic hub is XVIDEOS.com, experiencing growth in both interest and use, becoming one of the largest ‘hubs’ or “tubes” on the Internet, providing access to over one-million user uploaded videos (Ogas & Gaddam, 2011, p. 27). As Anthony (2012), details the website serves on average 350 million monthly users and uses nearly 29 petabytes of bandwidth within this period. To place this into context, a single petabyte is ~1,000 terabytes and the Library of Congress holds roughly 422 terabytes of data, with an addition of five terabytes a month (Library of Congress, 2013). XVIDEOS currently holds Top 50 rankings within both the United States and globally, ranking 34 and 39. Pornhub is the second most popular ‘hub’ website, set up in 2007, and holds an Alexa rank in both the top 50 and top 100 websites visited within the United States and globally ranking 34 and 58. Xhamster, established in 2007, is the third largest ‘hub’ ranking 41 and 44, Redtube.com, established in 2007, ranks 70 and 74, and lastly Youporn, launched in 2006, a marketing strategy or “tube” site to play on the familiarity with the website YouTube, currently ranks 76 and 93 within the United States and global rankings.

The advent of these hubs produced a statistically significant change in use of the query “Hardcore Porn”. Correlation analysis performed on the search query shows negative relationships with all the pornographic hubs Pornhub (-.550), Redtube (-.633), YouPorn (-.598), Xvidoes (-.521), and Xhamster (-.502) with  $p < .001$ .

<sup>3</sup> Alexa performs website rankings based on total unique visitors to websites, providing national and international rankings. For more information on how the rankings occur, please visit Alexa.com.

Figure 10

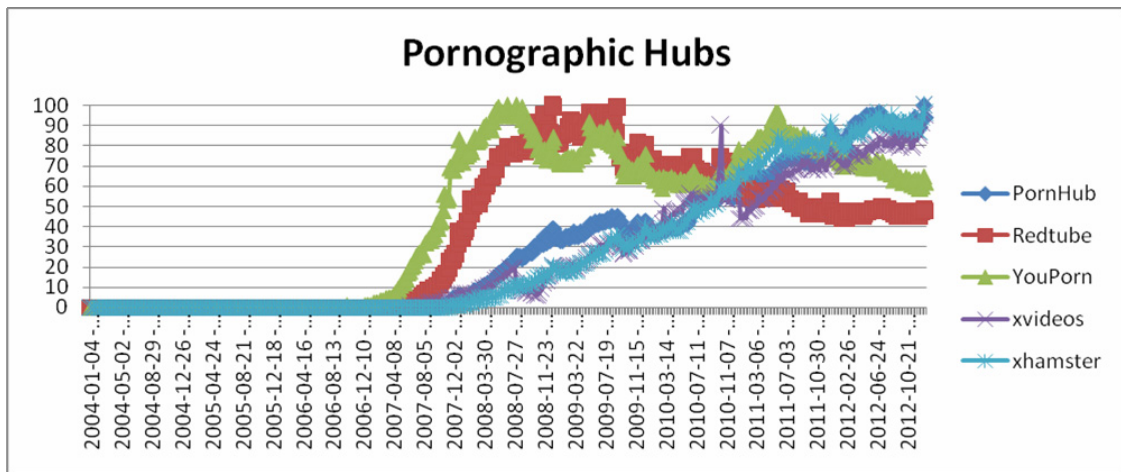


Figure 11

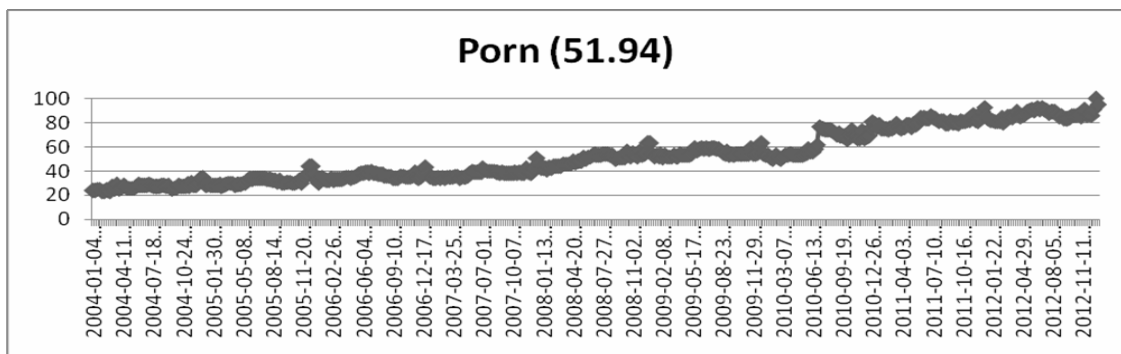
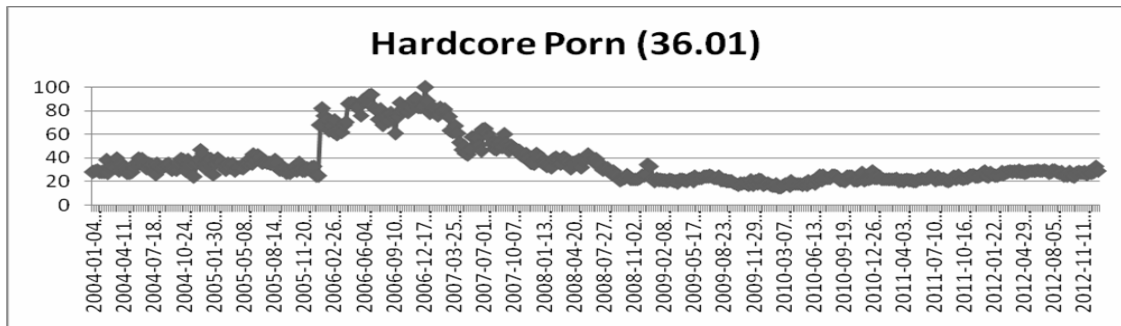


Figure 12





## Discussion

It has been over a decade since Gossett and Bryne (2002) introduced readers to rape-oriented pornographic websites by means of a content analysis. While the research was incredibly interesting to the discourse by way of the power and dominance and violent heterosexual pornography analyzed, it was the advertising and proliferation discussed that most resonated with readers. The promotion of material and the revenue associated with this niche connects deeply to the capitalistic and masculine undertones of “profit at any cost”. As prior research shows, rape-oriented material has spread from grainy short segments of video, to amateur video, to mainstream cinematic portrayals, all accessible from a single search and increasingly collated within pornographic “hubs”. This ‘a la carte’ feature within websites has made it increasingly easy to access sexualized violence. In fact, search interest in the query “porn” correlates strongly with the introduction of pornographic ‘hubs’. We believe this reflects accessibility developed towards ease of use, through categorization, ranking, and community feedback, including community requests, and rise in notoriety and mainstreaming of these hubs.

The rise in popularity displayed across each search query is fascinating. While queries for “porn”, as depicted in Figure 11, have remained consistently high, there is a well-defined interest in queries suggested to link to rape-oriented pornography. Perhaps even more intriguing is that these specific queries may reflect in searches conducted by unique users. Research suggests as new users find pornographic hubs, they are more likely to search within that website for content rather than Google. The influence of pornographic hubs on the query “hardcore pornography” demonstrates the influence of hubs on reducing associated searches in this search engine. Additionally, it only makes sense that a consumer looking for material, once finding a website catering to their interests, would then return to the website, avoiding a later query in a search engine. As displayed in the correlation analysis above, the introduction of pornographic hubs subsequently correlated with a decrease in the query “hardcore pornography” through Google.

Placing this research into the existing literature, the mass media is criticized for perpetuating rape myths and the linking of sex and violence in cinematic portrayals (Donnerstein & Linz, 1970). While prior studies have confirmed the prominence of this material in media and its availability within the Internet (Gossett & Bryne, 2002); few studies have been able to offer an empirical source at the macro level. Unique to the findings presented is the trend analysis suggesting not merely interest in a single search query, but the relative interest within fourteen search queries, many with data signaling interest in 2004, the year Google started collecting this data and allowing researchers access to it for trend analysis. Interest exists for the queries porn, hardcore porn, rape scenes, rape scene, and free rape videos well before the introduction of pornographic hubs.

## Conclusion

These data while new and emerging, have been used to further validate prior research, fostered new perspectives to emerge, and has become increasingly used within both the social and physical sciences (see Reilly, Richey, & Taylor, 2012; Ripberger, 2011; Scharkow & Vogelgesang, 2011; Weeks & Southwell, 2010; Belanger & Meguid, 2008; Althouse, Ng, & Cummings, 2011; Ginsberg, Mohebb, Patel, Brammer, Smolinski, & et al., 2009; Reis & Brownstein, 2010; Goel, Hoffman, Lahaie, Pennock, & Watts, 2010; Marhan, Saucan, Popa, & Danciu, 2012; McCarthy, 2010; Scheitle, 2011). We recognize that our data merely displays associated interest in these queries, which does not

empirically prove that an associated search correlates perfectly with intent to acquire rape-oriented pornography. However, each query displays increases in search interest. Increases that necessitate further inquiry. How do specific queries emerge, why did “Raped Porn” become an emerging query? Does this reflect a new subgenre in the field? Moreover, content analysis of the material reflecting these terms would be important to understand the relationship between queries used and content availability. Do these terms influence content availability? As users enter more queries and the search algorithm connecting users to the best source of that information (content), what is provided? Could data be valuable (once validated) to monitor rape culture domestically or even internationally (controlling for cultural and language changes)? As a macro level measurement, there is interest in these specific search terms, interest that has across several terms, increased. While the demographic characteristics of users remain unavailable within the data, it offers researchers an added source of data.

It is important for scholars to look for potential correlations between this macro level measurement and sexual violence in a nation and the causes that have contributed to this search interest, at the local, state, and national levels. A central question that we look to see answered is what is driving these trends within the United States? Moreover, do specific search interests correlate with increased or decreased sexual assaults and other acts of violence?

Future research must look to pornographic ‘hubs’ as a source of data. Each hub collates search interest into ‘tags’ providing an easier and possibly insightful methodology for query selection. As intimidating as these research projects may be within academia, research on pornography has rarely used these sources of data. As researchers, we accept that we avoided the pornographic hubs and were cautious in where we conducted our queries, which reflects how social desirability influences even those engaging in research on controversial topics (Miller & Tewksbury, 2001). However, triangulation is a cornerstone of effective research, and had we avoided the FAQ page for Xvideos, we would have missed what is an incredibly important source of data, data containing a snapshot into what users are uploading to the most popular pornographic ‘hub’ in the world.

Last, researchers must look to how we can use macro trends to impart change and create social justice for men, women, and children. What works to lessen interest in this content, without overtly banning these specific search queries? Could Google and other search providers include resources for counseling and informational advertisements on sexual violence in the top of search results and if so, how effective are such programs? Overall, further research is required to identify what mechanisms within existing cultural frameworks serve to embolden attitudes supportive of violence toward women and what can be done to combat such attitudes.

The purpose of this study was to introduce Google Trends as a new and emerging empirical data source. As a new data source, Google Trends offers the opportunity to identify and analyze macro level trends, while significantly lessening social desirability. While we are only able to speak to users of the search engine, we would be remiss if we did not explore the potential value of search queries as a supplemental data source. There are ~275 million Internet users in North America and ~2.4 billion Internet users globally (Miniwatts Marketing Group, 2013). Specific to the market of search queries, Google controls ~67 per cent of the search market (ComScore, 2012), providing results for on average ~5 billion searches a day. Reflecting on this data and our methodology, we

believe that we have succeeded in both of the research goals, mainly to 1) identify popular search queries theorized to portray 'rape culture', 2) analyzing the trends within those queries to explore the associated level of interest.

### Limitations

As an exploratory study using normalized data, the analysis is limited to within measures analysis for each specific search query. While the relative interest in these terms is presented, it is incredibly important to inject the findings suggest interest in an associated term and does not denote availability of content. Additionally, it is important to note that a search frequency of zero reflects interest, but the frequency of searches did not reach the level reflective of a score of "1". Again, without the raw search volume, the normalized data is a mere reflection of the associated interest, to a specific search query. Moreover, there are three other primary limitations of this research.

First, the primary limitation within this research, and that of Google Trends, is while Google Trends provides a means of assessing content validity, a user could select any of these specific terms without intending to find this material. While some of the search queries reflect intent, specifically those descriptive queries, we do not have empirical evidence suggesting that a query used is material sought.

Second, the data source reflects normalized data, representing an average for the associated search terms reflecting interest in the specified query. Subsequently, there is little inferential analysis available to researchers as the raw data; relative to total queries is unavailable. While researchers may identify localities with the highest search volume of a given keyword, the inability to access the raw data is a limit.

A third limit within the study is that it merely reflects those users of the Google Search Engine and does not reveal the demographic characteristics of those users conducting these specific searches. While researchers may identify the key demographic groups using Google in a typical week<sup>4</sup>, it would be dangerous to make inferences about those making these specific searches. Subsequently, this research does not seek to identify characteristics about those users, rather the intent is to identify and track trends within these specific queries.

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<sup>4</sup> A 2011 Gallup poll indicated that Google attracts young, affluent, and educated Americans (Morales, 2011).

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