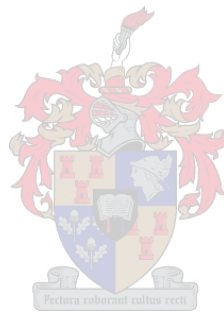


Pornography Conceptualised as an Addictive Substance

by
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Declaration

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Abstract

Since the dawn of the internet, pornography has effectively become ubiquitous, pervasive, and increasingly normalised. Study findings show remarkable similarities in how the brain reacts to pornography, and other known addictive substances, and indicate that consuming pornography is comparable to consuming other known addictive substances. Moreover, two of the biggest risk factors for addiction are the substance's availability and its easy accessibility, particularly in the case of younger persons. To date, pornography addiction has been conceptualised as a behavioural addiction. However, the body of research data on pornography addiction does not provide conclusive support for behavioural addiction. The aim of this thesis is to put forward the idea that pornography can, and should, be conceptualised as an addictive substance, and, that when pornography is consumed, an addictive substance is consumed. In order to support this claim, there are many factors that must be addressed. I first clarify what pornography entails by exploring how it is conceptualised, what pornography 'does', and what it means to be a pornography consumer. Secondly, I examine the conceptualisations of substances, substance consumption and addiction, respectively, as well as the subsequent difference between substance and behavioural addiction. Thirdly, I give an inclusive overview of pornography addiction by not only examining the most recent perspectives of researchers, but also of pornography consumers. I conclude by suggesting how we should go about conceptualising pornography addiction, and then propose how the set of diagnostic criteria for pornography use disorder should be formulated for a future iteration of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders. I argue that, given the abundance of academic research on substance addiction, compared to the scarcity of research on behavioural addiction, conceptualising pornography as an addictive substance is more likely to create a sense of urgency for the future research of pornography addiction than would be the case if it is considered a potential behavioural addiction. Furthermore, I argue that the classification of pornography as an addictive substance, and the inclusion of pornography use disorder in a future iteration of the DSM, will raise awareness of the potential adverse effects of pornography consumption and, therefore, the harmful consequences of pornography use disorder.

Opsomming

Sedert die ontstaan van die internet is pornografie in effek alomteenwoordig en deurdringend, en word toenemend genormaliseer. Studiebevindings toon merkwaardige ooreenkomste tussen breinreaksies op pornografie en ander bekende verslawende middels en dui daarop dat die verbruik van pornografie vergelykbaar is met die verbruik van ander bekende verslawende middels. Boonop is twee van die grootste risikofaktore vir verslawing die beskikbaarheid en die maklike toegang tot die middel, veral in die geval van jonger persone. Tot op hede is pornografieverslawing gekonseptualiseer as 'n gedragsverslawing. Die navorsingsdata oor pornografieverslawing bied egter nie onomstootlike ondersteuning vir pornografie as gedragsverslawing nie. Hierdie tesis het ten doel om voor te stel dat pornografie as 'n verslawende middel gekonseptualiseer kan en behoort te word en dat wanneer pornografie verbruik word, 'n verslawende middel verbruik word. Om hierdie bewering te staaf, is daar verskeie faktore wat aangespreek moet word. Ek verduidelik eers wat pornografie behels deur toe te lig hoe dit gekonseptualiseer word, wat pornografie 'doen' en wat dit beteken om 'n pornografieverbruiker te wees. Tweedens ondersoek ek die konseptualisering van middels, middelverbruik en verslawing onderskeidelik, asook die gevolglike verskil tussen middel- en gedragsverslawing. Derdens gee ek 'n inklusiewe oorsig van pornografieverslawing deur nie net die mees onlangse perspektiewe van navorsers te bestudeer nie, maar ook dié van pornografieverbruikers. Ter afsluiting doen ek voorstelle aan die hand vir die konseptualisering van pornografieverslawing en die formulering vir die diagnostiese kriteria vir pornografiegebruiksversteuring vir toekomstige uitgawes van die Amerikaanse Psigiatriese Vereniging se Diagnostiese en Statistiese Handleiding van Geestesversteurings. Gegewe die oorfloed van akademiese navorsing oor middelverslawing, in vergelyking met die skrale navorsing oor gedragsverslawing, argumenteer ek dat die konseptualisering van pornografie as 'n verslawende middel 'n sterker gevoel van dringendheid vir die toekomstige navorsing van pornografieverslawing kan skep, in teenstelling met wanneer dit as 'n potensiële gedragsverslawing geklassifiseer word. Verder kan die oorweging van pornografie as 'n verslawende middel, asook die insluiting van pornografiegebruiksversteuring in toekomstige uitgawes van die Diagnostiese en Statistiese Handleiding, bewusheid van die potensiële nadelige gevolge van pornografieverbruik aanwakker.

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Lastly, I wish to dedicate this thesis, along with Martin Prescott's book on quitting porn (2018), "in memory of all the great ideas and opportunities wasted as a result of watching pornography". I also wish to dedicate this thesis to anyone who has ever struggled (no matter how hard they've tried) to stop consuming pornography. You are not crazy and you are not alone. A shift in research is happening, slowly but surely. May this thesis be followed by many more conceptual questions, critical thinking, scientific studies and qualitative research about pornography.

We need it.

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Introduction

Pornography has become pervasive in our society. In 2019 alone, consumers watched a total aggregate of nearly 349 524 000 000 minutes of pornography – which is the equivalent of 6 650 centuries of content – on one of the internet’s largest pornography websites: *Pornhub* (2019). As of May 2021, pornography websites received more internet traffic in the United States than Twitter, Instagram, Netflix, Pinterest, and LinkedIn combined (SEMrush Traffic Analytics, 2021). In 2022, pornography is considered to be a 100-billion-dollar industry (Wise, 2022). Moreover, according to the results of an online “porn addiction test” (2022), with a participant group of 22 143 pornography consumers worldwide, close to 40% of those deemed most at risk of being classified as pornography addicts, in the age group of 17-24, have viewed pornography more than 500 times before turning 18. However, while pornography is clearly a pervasive and ubiquitous phenomenon in our society today, pornography, and pornography addiction in particular, remains an immensely under-researched field.

Pornography addiction is currently being researched as a potential behavioural addiction, since it is the compulsive consumption of pornography that is viewed as the addictive behaviour and not pornography itself that is understood to be the addictive substance. The main characteristic of behavioural addiction is the “failure to resist an impulse or drive to perform a behaviour that is harmful to the person or to others” (Wei & Zhang, 2017: 109). The recent text revision of the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR) stipulates that there are “behavioural conditions that do not involve ingestion of substances [that] have similarities to substance-related disorders” (American Psychiatric Association, 2022: 662). In the DSM-5-TR, it is stated that the category of behaviour-related disorder is included in the chapter with substance-related disorders because such behaviours “activate reward systems similar to those activated by drugs of abuse and produce behavioural symptoms that appear comparable to those produced by the substance use disorders” (APA, 2022: 543, 662). Currently, there is only one behavioural addiction (or non-substance use disorder) listed in the DSM-5-TR, namely, gambling disorder (*ibid.*, 662). While the DSM acknowledges that there are other repetitive behaviours that can align with the criteria for substance use disorders (such as “sex addiction”, “exercise addiction”, and “shopping addiction”), gambling disorder is the only one that offers “sufficient data” for diagnostic criteria in the section of non-substance use disorders in the DSM (*ibid.*, 543).

Pornography is not typically conceptualised as an addictive substance, because, to date, substances have been regarded as things that we can take into our bodies, only through ingestion, injection or

inhalation. The aim of this thesis is to put forward the idea that pornography can, and should, be conceptualised as an addictive substance; that, when pornography is consumed, a substance (that is addictive) is consumed.

There are numerous significant factors that must be addressed in order to support the claim that pornography is an addictive substance. Conceptually, it is necessary to clarify what pornography entails; what substances are; what addiction is; and to analyse the subsequent differences between substance and behavioural addiction. The conceptualisation of substance consumption is also crucial to the argument put forward in this thesis. I have structured the thesis in three parts, in which I address and discuss each of these points in detail. In chapter 1, I focus on the fundamental elements we must consider in order to conceptualise pornography, namely, what it is, what it does, and what it means to be a pornography consumer. Chapter 2 focuses on how addictive substances are conceptualised, as well as the conceptual differences between substance and behavioural addictions. With the above-mentioned exposition in mind, I discuss some distinct contemporary views on pornography addiction, as expressed by researchers and pornography consumers, respectively, in chapter 3. In this final chapter, I set out the argument in support of conceptualising pornography as an addictive substance, and conclude by suggesting how we should go about conceptualising pornography addiction. I then propose how the set of diagnostic criteria for pornography use disorder should be formulated for a future iteration of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders.

In this thesis, I will argue that pornography, as an addictive substance, accurately represents its addictive nature, given the scientific findings that show the similarities of neural responses to pornography and other known addictive substances, and in general, how the act of consuming pornography is similar to the act of "taking in" other substances known to be harmful and addictive. After proposing compelling reasons to conceptualise pornography as an addictive substance, rather than the consumption of pornography as an addictive behaviour, I will argue that it is apparent that this shift in conceptualisation may provide a solid foundation for the future research of pornography addiction and reinvigorate research into its harmful and addictive nature, in a way that is not the case where it is considered a behavioural addiction.

Even though much more research is needed to construct a robust diagnostic set of criteria for pornography use disorder, conceptualising pornography as an addictive substance may assist in such future research by relying on the more substantial literature that is already available after decades of research on substance addictions and substance use disorders. Furthermore, I will argue that the

classification of pornography as an addictive substance, and the inclusion of pornography use disorder in a future iteration of the DSM, will raise awareness of the potential adverse effects of pornography consumption and, therefore, the harmful consequences of pornography use disorder.

Chapter 1: Conceptualising Pornography

The majority of academic literature that engages with the topic of pornography questions its impact on a social, economic or political level, but fails, I argue, to adequately engage with the question of what pornography actually is. Empirical, moral and conceptual questions, such as “Do men desire to watch pornography more than women do?”; “Is watching pornography a sin or morally bad?”; “Can pornography sometimes be considered art?”; “Do pornography producers exploit pornstars?”; “Is sexting with photos and texts a form of pornography production?”; “Should pornography be taught as a film genre in university?”; “Does pornography fetishize trans people?” and “Is hentai¹ child pornography *really* child pornography when it doesn’t depict a real child in the real world?” are most certainly not insignificant. However, in order to sufficiently analyse pornography, particularly in terms of the aim of conceptualising it as an addictive substance, we must first consider some crucial foundational questions.

When considering the phenomenon of pornography from a philosophical perspective, one might ask whether it is actually possible to adequately analyse pornography without empirically engaging with it. In other words, can we adequately consider and understand pornography from the philosophical armchair, so to speak (Mikkola, 2019: 259). While this is one possible approach to the matter, the argument I make in this thesis requires engaging with the landscape in which pornography (and its different manifestations) is created and consumed. In this first chapter, I discuss what I consider to be the fundamentals of pornography, namely what it is, what it does, and what it means to be a pornography consumer. As will become apparent, a comprehensive understanding of pornography requires a full consideration of these three fundamental questions.

1.1 What is pornography?

“Pornography is an industry. It exists in the world. No pornographer has any trouble knowing what to make.

No distributor has any trouble knowing what to carry. No retailer has any trouble knowing what to order.

No consumer has any trouble knowing what to buy.”

A. Dworkin & C.A. MacKinnon (1988)

¹ Hentai pornography has come to generally refer to animated or cartoon pornography (Walker, Makin & Morczek, 2016), but more specifically, it is Japanese-styled animations that can contain sexually graphic depictions and explicit themes of various sexual acts and fetishes, including incest, sex with aliens, or “tentacle rape” (Uidhir & Pratt, 2012).

Dworkin and MacKinnon's claim was made 34 years ago. Since then, the pornography industry has radically transformed its content and way of reaching its audience. However, there is still a lack of consensus about how pornography should be conceptualised. This is problematic, because in order to critically engage with the phenomenon of pornography in a coherent manner, a definition must precede the analysis. As noted by Grebowicz, because it is so challenging to define, pornography continues to be a "complex and daunting topic" that calls for ongoing analysis (2013: 6). What are the characteristics that we might incorporate in a definition of pornography? Contenders could include the element of fantasy, the experience and/or expression of pain, disgust or desire, or the explicit exhibition of pleasure.² A common challenge in defining complex terms is determining the extension of a term without already knowing what that term means, and knowing what a term means without already determining what it refers to. In this regard, McGowen suggests that the best approach is to "try to settle both questions simultaneously" by beginning with intuitions regarding the meaning and facts about the extension that are common knowledge, and then fine-tuning, in light of one another, until a suitable solution to both concerns is found (2005: 24). Let us thus start with a few assumptions and work backwards to define pornography.

If we try to determine the basic characteristics that would form part of a definition of pornography, we should take note of one of the major challenges in defining it. Tarrant refers to a widely referenced description, uttered by Justice Potter Stewart, of his threshold test for obscenity in a French drama film for the case *Jacobellis v. Ohio*³ in 1964: "I shall not today attempt further to define the kinds of material I understand to be embraced within that shorthand description ["hardcore pornography"], and perhaps I could never succeed in intelligibly doing so. But *I know it when I see it*, and the motion picture involved in this case is not that" (2016: 3, own emphasis). As Mikkola (2019: 2) points out, Justice Stewart was relying on his intuitive understanding of what pornography is – an approach employed similarly by many others. In other words, defining pornography via this kind of ostensive definition relies on a subjective perception of what they consider instances of pornographic material to be. This makes it very difficult to define pornography in terms of necessary and sufficient characteristics, or to pick out clear-cut instances of pornography.

² Grebowicz further posits that "Sex becomes pornographic as it turns the secret of feminine pleasure into hard reality, like that of masculinity" (2013: 75), referring to the fact that male orgasm is mostly accompanied by a physical and visible ejaculation compared to the female orgasm that is mostly not.

³ Louis Malle's French film, *The Lovers* or *Les amants* (1958), is about a woman involved in infidelity who rediscovers romantic love. The Supreme Court of the United States faced a controversy over whether this film violated the First Amendment (freedom of speech) for the depiction of allegedly obscene material. Justice Potter Stewart needed to determine what exactly distinguishes pornography from obscenity in this case. In the end, the Court ruled in favour of Nico Jacobellis, manager of the Coventry Neighbourhood Heights Art Theatre in Cleveland Heights (Tarrant, 2016: 3).

Moving away from the intuitive *I know it when I see it* approach, I posit that it is uncontroversial to assume the following as key characteristics of pornography across various mediums: pornography is sexually explicit, to some degree, and it is sexually arousing to look at (Grebowicz, 2013: 7; Held, 2014: 78; Rogers, 2017: 155; Mikkola, 2019: 17), (or listen to, in the case of audio pornography; or to read, in the case of pornographic writings). Of course, in cases where adults or children are forced to consume pornography by someone else, they might not experience sexual arousal in all instances of exposure (Malamuth, 2018). My focus here is on the willing consumption of pornography by the consumer.

It has also been argued that pornography refers to “any sexually explicit material to which access was limited, either by signs or physical structure, to adults” (Barron & Kimmel, 2000: 162). Today, this is no longer the case, as the internet allows for easy access to pornography (Cooper, Scherer, et al., 1999; Owens et al., 2012; Price et al., 2016). Despite the fact that pornography websites issue warning messages about age restrictions, underaged persons can easily lie about their age to gain access (Bischmann, 2017; Morichetta et al., 2021). In fact, pornography is accessed so easily, it has become possible to *accidentally* view pornography when using the internet (Esplin et al., 2021). In other words, pornography is easier to access, and there exists more of it, than ever before.

Multiple literature sources try to define pornography as something that has been intentionally produced specifically for the purpose of sexually arousing the consumer (for example, Grebowicz, 2013). I contend that this is not a consistent characteristic of pornography. Revenge pornography, which is the dissemination of sexually graphic pictures or films of people without their consent (Citron & Franks, 2014), is often not posted with the intention of arousing its viewers, but rather with the intent to harm those in the pornographic content who did not consent to its publication (Uhl et al., 2018). Moreover, such material is not necessarily specifically posted to a revenge pornography website (such as previously active website *myex.com*, or currently active *anonvault.com*), but can be published to any pornography site that allows users to upload their own content. This means that whoever views this material may not be aware that it has been published without all parties’ consent. The so-called main intention of sexually arousing the viewer could therefore be completely disregarded by the person posting the revenge pornography material, while simultaneously acknowledging its possibility. Thus, while pornography is *generally* created with the intention to sexually arouse its viewer, some instances of pornography do not fit this characteristic.

To try and define what is sexually arousing and what *makes* something sexually arousing is a particularly complex endeavour. It is very difficult to articulate, in a precise and comprehensive

manner, what being “turned on” means, besides mentioning possible physical and emotional changes that are often experienced as pleasant. Another approach would be to first examine which kinds of pornography exist in order to determine what consumers, in general, find sexually arousing, and then build a conceptualisation of pornography from there. I posit that there are two main factors that influence the ability of sexually explicit material to lead to sexual arousal: what it depicts (content) and how often it can be consumed (accessibility).

The content of pornography can vary greatly in sexual explicitness. A distinction can be made here between “softcore” and “hardcore” pornography. Dworkin and MacKinnon noted that until pornography became more popular and accessible to the public by means of the internet, the distinction was rather simple: “‘Hardcore’ was pornography in which an erect penis was shown” (1988: 67). In addition, Hirdman argued that the gendered character of pornography is a key factor in the distinction between hardcore and softcore pornography: “The penis – and the state it is in, either hard or soft, aroused or not – is a crucial element” (2007: 161). Arguably, if this was still the case with pornography consumed today, the exhibition of a flaccid, or non-erect, penis would immediately convert the sexually arousing material into softcore pornography, regardless of the other sexual acts being depicted. Contemporary pornography presents far more extreme sexual acts, showing that the range of pornography between softcore and hardcore has expanded, or even shifted entirely (Maddison, 2013; Borgogna, Lathan & McDermott, 2022; Carter, 2022).

Informal online resources (such as blogposts and Q&A websites like *Quora.com*) can offer useful, and possibly more relevant, ways of conceptualising what occurs in contemporary pornography that is seemingly lacking in the formal academic literature. Opinions regarding the hardcore/softcore distinction vary greatly; softcore pornography focuses more on the facial expressions of all the parties involved in the sex act, hardcore pornography does not. Hardcore pornography explicitly shows sexually stimulating interactions with genitalia and penetration, softcore pornography does not. Softcore pornography frequently does not include male participants, whereas hardcore pornography tends to show excessively dominant⁴ male participants. Softcore pornography focuses on kissing and foreplay, while hardcore pornography focuses on ejaculation and possibly multiple orgasms. Softcore pornography generally does not contain full-frontal nudity, whereas in the case of hardcore depictions, nothing is seen as off-limits. I contend that some of these suggestions are overly narrow, while some are too broad. I suggest that softcore and hardcore pornography should be conceptualised on a continuum, rather than in terms of a rigid distinction between the two. This is because some

⁴ This generally refers to features that show higher social dominance, such as high social status (Mealey, 1985; Mazur & Booth, 1998; Fieder et al., 2005), and physical dominance (Wolff & Puts, 2010).

pornography, considered to be softcore, includes more explicit actions and gestures, such as clothed grinding or revealing the naked backs of the couple engaging in sexual foreplay.

On the other hand, some instances of hardcore pornography are more “hardcore” than others. Hardcore pornography may show someone masturbating while watching pornography, while other instances show a “donkey punch”, which is the sexual practice of applying blunt force trauma to the receiving partner’s lower back or back of the head during anal or vaginal intercourse to cause the receiving partner’s internal or external anal sphincter muscles or vaginal passage to constrict involuntarily (Ging, Lynn & Rosati, 2020: 845). It is therefore clear that there is a grey area between strong softcore pornography and weak hardcore pornography, but this is not problematic for the aims of this chapter. The goal in this section remains to identify what constitutes as instances of pornography, both softcore and hardcore, regardless of where it occurs on the continuum.

Distinguishing pornography from non-pornography is also a challenging and complex task. When the pornographic visual style is more widely used in society, the distinction between pornography and non-pornography is blurred (Hirdman, 2007: 161). Many non-pornographic movies contain explicit sexual overtones that are intended to sexually arouse the viewer. While such instances might be described or considered as ‘pornographic’, being pornographic does not necessarily imply that these are clear-cut instances of pornography. Mikkola explains this point by using the example of a painting that is “iconic”, in that it represents an icon artistically, but the painting is not the icon itself (2019: 17). Content that depicts persons imitating sexual acts, particularly with the intention of sexually arousing their onlookers (like videos of girls in miniskirts or tight yoga pants twerking⁵ on TikTok (Jargon, 2022)), could be considered pornographic in *some* sense. This is important, since pornography consumers may initially view “softer” pornographic material before moving through the continuum to more hardcore content. Thus, I would not overlook watching sexually suggestive twerking videos on social media or in music videos as a precursor to consuming more lewd content.

Since I aim to conceptualise pornography as an addictive substance, I argue that it is important to consider the possibility that persons can become addicted⁶ to pornographic content, in the sense stipulated above, (even excessive reading of erotica),⁷ before potentially consuming more hardcore pornography. Viewing any kind of sexually suggestive content might be challenging for individuals

⁵ To twerk is to “dance to popular music in a sexually provocative manner involving thrusting hip movements and a low, squat stance” (Toth, 2017).

⁶ I expand more on the nature of substance addictions and non-substance addictions in chapter 2.

⁷ Anna Lembke, the author of *Dopamine Nation* (2021), confessed that she herself struggled with controlling the time she would spend on thinking about and reading romantic novels.

who are trying to curb their (hardcore) pornography watching habits, which strongly suggests that softcore and hardcore pornography are connected. However, determining whether consuming some pornographic material can be considered addictive in the same way as instances of clear-cut pornography, requires more research. Therefore, I argue that while softcore and hardcore pornography exist on a continuum, with varying degrees of sexual explicitness, the consumption of any kind of pornographic content could become addictive regardless of its degree of sexual explicitness.

A few other characteristics of pornography can be noted. Pornography (hard and soft) can involve various possible participants, including real or animated humans (adults and/or children) or creatures/animals/half-human-half-animal hybrids engaging in sexual acts. In terms of the medium used, the pornography available today is mostly distributed either cheaply or freely, with anonymity and unlimited access, via the internet. This constitutes a shift away from still photos in magazines, rented DVDs or XXX cinemas, which was the case prior to the inception of the internet.⁸ The nature of the internet is such that it now allows for a diverse array of mediums for pornography – every possible preference regarding pornography consumption can be satisfied.⁹

In conclusion, pornography can be defined in terms of its depiction of widely varying sexual content that is, more often than not, created with the intention to sexually arouse the consumer and/or pornography consumption results in the consumer finding it sexually arousing. In other words, pornography is “sexually explicit material developed and consumed to stimulate sexual arousal, available in versatile forms (e.g., photographs and videos) and often accessed online” (Hughes, Brewer, et al., 2020: 886). In the next section, I discuss what pornography is able to do, in a general sense.

1.2 What does pornography do?

“Porn’s power comes from its ability to provide an experience of sexual stimulation coupled with immediate gratification.”

W. Maltz & L. Maltz (2008)

⁸ Multiple options are now available, including live streaming, home-made videos, studio produced via a paid subscription, audio pornography, explicit sexual stories and fiction, immersive computer pornography games that can connect to sex toys, and pornography advertisements on torrent sites, just to name a few.

⁹ For example, some pornography consumers may prefer watching live cam models over experiencing pornography with a VR headset. Others may find that reading fanfiction of their favourite celebrities is just not as arousing as watching their actual sex tape.

In the minimal academic literature that engages with pornography, as Mikkola has laid out, a pivotal discussion has been about what pornography *does* (2019: 7–14).¹⁰ Taking on the view that pornography can *do* something implies that it has causal power, in some sense. For MacKinnon and Dworkin, pornography should be viewed as a practice of sex discrimination that is detrimental to the civil rights of women (Dworkin, 1981; MacKinnon, 1987, 1989, 1993). This perspective focuses more on what pornography does, or achieves (encourages, normalises, and glorifies sexual violence against women), than what its content depicts (Mikkola, 2019: 7). According to this view, claiming that pornography does something implies that it constructs or supports a reality. It “eroticizes male dominance and female submissiveness” and presents this as the true nature of sex (MacKinnon, 1987: 171; Mikkola, 2019: 7). In 1983, MacKinnon and Dworkin stipulated anti-pornography regulations at the request of the Minneapolis City Council. These regulations were based on the civil rights abuses of women, rather than the obscenity, immorality, or vulgarity of pornography (Mikkola, 2019: 22). The ordinance was formulated as follows (MacKinnon & Dworkin, 1997: 444):

“Pornography shall mean the graphic sexually explicit subordination of women, whether in pictures or in words, that also includes one or more of the following:

- (1) Women are presented as sexual objects who enjoy pain or humiliation; or
- (2) Women are presented as sexual objects who experience sexual pleasure in being raped; or
- (3) Women are presented as sexual objects tied up or cut up or mutilated or bruised or physically hurt, or as dismembered or truncated or fragmented or severed into body parts; or
- (4) Women are presented being penetrated by objects or animals; or
- (5) Women are presented in scenarios of degradation, injury, abasement, torture, shown as filthy or inferior, bleeding, bruised, or hurt in a context that makes these conditions sexual; [or]
- (6) Women are presented as sexual objects for domination, conquest, violation, exploitation, possession, or use, or through postures or positions of servility or submission or display.

The use of men, children, or transsexuals in the place of women in paragraphs (1) through (6) above shall also constitute pornography under this section.”

In this formulation above, pornography is implicitly defined through what it does – it subordinates women. Pornography, so defined, is therefore harmful, since subordination, in this sense, is harmful (McGowan, 2005: 26). Furthermore, according to this view, and in addition to subordination, pornography also silences women: “In making violence the apparent truth about sex, pornography prevents women from saying otherwise” (Mikkola, 2019: 9). Pornography “strips and devastates

¹⁰ Arguably, sexually arousing the consumer is also something pornography can do. However, this point is not usually discussed in the literature regarding what pornography does.

women of credibility” in their attempts to articulate experiences of sexual assault, which are seen as part of ordinary sexual realities, due to pornography – women are thus “stripped of authority and reduced and devalidated and silenced” (MacKinnon, 1987: 193). It is thus argued that pornography is a practice of sex discrimination, since it silences and subordinates women (Mikkola, 2019: 9).

McGowan notes that this approach to defining pornography is rather narrow (McGowan, 2005: 26). I concur, insofar as it risks omitting content that would otherwise unquestionably be considered pornographic. For instance, pornographic material that does not (overtly) subordinate women (like many of the examples mentioned in the previous section), does not fit this criterion. However, if one concedes that pornography does construct a reality, and, in this regard, presents a particular perspective or view about the true nature of sex,¹¹ it seems uncontentious to assert that pornographic material that depicts any of the scenarios in points (1) through (6) would constitute discrimination and violation of rights – whether it be the graphic sexually explicit subordination of women, men, children or trans persons.

To the contrary, Joel Feinberg (1985) contends that arguments stating that pornography harms women by defaming them, or by encouraging male aggression against women, are unconvincing. He does not contest the existence of male aggression against women, but states that the argument that pornography is damaging, in this sense, fails, since the legal standard, to show the relevant harm to women, is an immense task that is difficult to achieve (ibid.). In other words, according to Feinberg, MacKinnon and Dworkin’s case allegedly fails due to the lack of empirical¹² and legal proof that shows that pornography encourages violence against women.

Mikkola (2019) further notes another pivotal moment in philosophical discussions about what pornography does, referring to Langton’s (1993) use of J.L. Austin’s (1962) speech act theory. Langton uses speech act theory to argue that pornography acts as a form of sex discrimination. Austin (1962) argued that our words have the power to do more in the world than just declare things to be true or false. He does this by dividing speech acts into “locutions”, “perlocutions”, and “illocutions”. As summarised by Mikkola (2019: 11), the speaker’s locution (referring to the words uttered) can perform some illocutionary action (in uttering something, the speaker’s locution can count as x-ing),

¹¹ Whether this notion is true (or can be proven to be true) lies beyond the scope of this thesis. For an example of an opposing view, see Soble, A. (1985). However, the recent empirical research discussed in this section indicates that pornography consumers may take pornography to present a particular perspective about the true nature of sex, and desire to imitate the acts seen in pornography.

¹² For a related argument, see Soble, A. (2002), in which Soble argues that the conservative and feminist critics’ arguments against pornography are unfounded, since they do not base their arguments on thorough empirical research of pornography itself.

and the speaker's locution can have some perlocutionary effects (the speaker's locution can have additional extra-linguistic effects by saying something). In this regard, pornography has been taken to be a form of speech, since the notion of free speech¹³ is what has protected its production and distribution in the United States (ibid). According to Langton (1993: 305–313), pornography (as speech) does more than just produce utterances when it says something about women: seeing them as inferior, allowing discrimination against them to stand, and denying them crucial free speech rights. That is to say, pornography (as speech) functions like a declaration akin to declaring someone guilty or declaring a couple to be husband and wife.

To support the argument that pornography causes harm, as posited by Langton, MacKinnon and Dworkin, we must draw on more recent empirical research. Various statistics point towards the destructive milieu in which pornography consumption exists and its harmful effects. One study assessed hundreds of the most famous pornography scenes and discovered that 48.7% of them exhibited verbal aggressiveness (such as using insulting, threatening or coercive language), while 88.2% of them featured physical aggression or violence (such as pushing or shoving, biting, choking, gagging and open hand slapping) (Bridges et al., 2010). A more recent study found that more than 1 in 3 pornographic movies, even according to the lowest estimate, feature sexual violence or aggressiveness (Fritz et al., 2020). In addition to this, one out of every eight pornography video titles recommended to first-time users on pornography sites, portray some form of sexual assault (Vera-Gray et al., 2021). According to another study, 25% of the Pornhub videos analysed featured verbal aggressiveness, while close to 40% of them contained visual violence or aggression (Shor & Seida, 2019). Another study found that 35% of the videos on *XVideos*, and just over 45% of the videos on Pornhub, contained violence or depicted explicit aggression (Fritz et al., 2020). Both of these studies found that those on the receiving end were almost always women.¹⁴

Not all pornography contains explicit physical violence, but it has been suggested that even non-violent pornography is linked to adverse effects, like increased sexual aggression (Wright, Tokunaga

¹³ This is not completely the case in South Africa. As per the Films and Publications Act, 1996 (the Act) and the Films and Publications Amendment Act, 2019 ("Amendment Act") (Reisenberger, 2010), pornographic material coming from a South African-hosted website is illegal, while pornographic material from other nations is completely legal (Verster, 2018). The possession of child pornography is not protected under any law in any country, with Benin, Central African Republic, South Sudan, Uganda and Palau being the only countries which currently have no laws against any kind of pornography, including real and fictional child pornography (Wikimedia Commons, 2020).

¹⁴ Other research has been conducted (but, less so) to assess the harmful effects of pornography, not directly related to women. For example, increased pornography use has also been linked to higher eating disorder symptoms, higher levels of body dissatisfaction, higher prevalence of thinking about using anabolic steroids, and lower quality of life (Griffiths et al., 2018). In addition, race is frequently fetishized in pornography and people of colour are categorised sexually in ways that frequently reinforce negative stereotypes (Zhou & Paul, 2016; Abujad, 2021; Fritz et al., 2021).

& Kraus, 2016). Therefore, one could say that much of pornography presents and plays a role in normalising the idea that sexual pleasure involves (and sometimes potentially justifies) violence (Daneback, Ševčíková & Ježek, 2018; Ezzell et al., 2020). For example, some research indicates that people who watch pornography are more inclined to sexually objectify and dehumanize other people (Mikorski & Szymanski, 2017; Skorska, Hodson & Hoffarth, 2018; Zhou et al., 2021). More recently, it has been found that women's consumption of pornography has been linked to their use of non-verbal sexual arousal, as well as emotional manipulation and deception as forms of sexual coercion (Hughes, Brewer, et al., 2020). It has also been suggested that pornography consumers are more likely to express an intent to rape (Foubert, Brosi & Bannon, 2011), are more likely to be bystanders during sexual assault and to "victim-blame" survivors of sexual assault (Foubert, Brosi & Bannon, 2011; Foubert & Bridges, 2017), and are more likely to be involved in acting out violent sexual acts (Wright, Tokunaga & Kraus, 2016; Rostad et al., 2019; Goodson, Franklin & Bouffard, 2021). Another study found that teenagers frequently admit to wanting to imitate the acts depicted in pornography in their own sexual interactions (Rothman et al., 2015). Furthermore, according to a UK survey of over 22 000 adult women, 16% reported having been forced or coerced to perform sex acts the other person had seen in pornography (Taylor & Shrive, 2021).

The empirical research appears to indicate that pornography can be very harmful towards women – as MacKinnon, Dworkin and Langton argued many years ago, before the commencement of fast internet pornography. However, for the purposes of this thesis, I do not mean to argue that these adverse effects of pornography are what makes it addictive, as this claim requires more empirical research. The harm women (or anyone) experience due to pornography is a separate issue from whether pornography can, and should, be viewed as an addictive substance. Regardless, I posit that it remains important to acknowledge these arguments about what pornography can do in order to better comprehend the nature of pornography and the weight that an addictive substance as such, can carry.

Consuming pornography is usually (but not necessarily always) accompanied by masturbation (Böhm et al., 2015; Carvalheira, Træen & Stulhofer, 2015; Miller et al., 2019; Prause, 2019). Most people watch pornography because they find it sexually arousing, thus enhancing their masturbatory experience: "Getting pleasure from looking at another person's body, watching its movements, and hearing the sounds of sexual activity or words, can occur not only during the [act of solo masturbation of two persons simultaneously aware of each other] but also during solitary [masturbation], through the medium of pornography" (Soble, 2022: 84). The goal of consuming pornography is usually not to make the consumer think, but to have them focus on their experience of sexual arousal, as it is intended to be a passive pursuit. Discussion, imagination, and interaction between the persons

engaging in sex with each other, the “kind that occurs in mutually wanted sex (What do you want to do? How do you want to do it? Want to try this or that?)” are usually not present in pornography (Altman & Watson, 2019: 287). In addition, it has been argued that viewing pornography on a regular basis conditions the consumer’s arousal template to be more sensitive to pornographic imagery (Wright et al., 2021). In other words, the more pornography the consumer views, the higher the level of arousal the consumer will experience from consuming pornography. It was found that this increased arousal to pornography leads to both higher comparisons of one’s own sex life and sex as represented in pornography, as well as a preference for masturbating to pornography over partnered sex (ibid.). One can thus argue that this desire, in turn, lowers the perception of how pleasurable it is to have sex with one’s partner, and hence lowers the perception of how satisfying one’s relationship with one’s partner is.

Furthermore, Soble writes: “My guess is that for many people masturbatory sex is chronologically primary, preceding consistent two-party sexual events by perhaps a decade” (ibid.: 71). Indeed, Soble’s “guess” is supported by evidence. When comparing the studies that have been done on childhood masturbation for both sexes, the “median age of masturbatory behaviours begins between 1.5 and 2.7 years of age, with the average frequency occurring between two and four times daily” (Wilkinson & John, 2018: 639). Other studies indicate that masturbation can start as early as 2 months and in some cases in utero (Gündüz, Uşak & Yüksel, 2015; Rodríguez Fernández & López Ramón Y Cajal, 2016). Masturbation is thus considered a completely natural and normal activity and children displaying masturbatory behaviours at such a young age are clearly responding to, or stimulating, a pleasurable sensation, rather than using pornography as an aid or enhancement to masturbation. However, given the seeming difficulty of controlling children’s access to the internet¹⁵ (be it through the desktop PC in the living room, tablets for supposed educational purposes, their *PlayStation* or *Xbox*, or even via their caregivers’ smartphones), it might be the case that in coming years, the average age at which children start watching pornography will lower. Moreover, research shows that the younger the age people first start to watch pornography, the more likely they are to view bestiality or child pornography¹⁶ (Seigfried-Spellar & Rogers, 2013), and along with early exposure to pornography, many sexual offenders’ sexual backgrounds show evidence of early and frequent masturbation (Saade, Wadhwa & Torbey, 2020).

¹⁵ Holloway, Green and Livingstone (2013) report that “more recent surveys from individual EU countries indicate that internet take up by children under nine is continuing to rise, and that children are accessing the internet at younger and younger ages”, e.g., a third of 3 to 4-year-olds in the United Kingdom go online.

¹⁶ I discuss this issue of desensitisation and tolerance to more extreme pornography in chapter 3.

This also indicates that in the case of many children, watching pornography is their first sexual encounter (Altman & Watson, 2019: 287). It is likely possible, then, that children watch pornography for years before they sexually engage, or even *want* to sexually engage, with another person for the first time.¹⁷ “Fortnite” continued to be the most searched for game on Pornhub (“2021 Year in Review”, 2021) – and this is not because you can play Fortnite on Pornhub. Creators have used characters from Fortnite to make animated pornography. It is worth emphasising here that Fortnite is not a pornographic game. Fortnite is rated ‘T’ (“Teen”) for violence, which means the game is “appropriate for players 13 years and older” (Lopez, 2021). One can thus assume that Fortnite pornography has been popular with the underaged pornography consumers. In this regard, Bischmann’s study (2017) is illustrative: this study, which included a sample of 330 undergraduate men, age 17 to 54 years old, asked participants at what age they first started watching, or were exposed to pornography, and whether it was intentional, accidental or forced. The results indicated that “the average age of first exposure was 13.37 years of age with the youngest exposure as early as 5 and the latest older than 26. More men indicated their first exposure was accidental (43.5 percent) [rather] than intentional (33.4 percent) or forced (17.2 percent). 6% [of participants] did not indicate the nature of the exposure” (Bischmann, 2017).

I now turn to a related aspect of pornography consumption and assert that, due to the easy access to pornography on the internet, pornography has become commonplace; its consumption is normalised to the extent that desensitisation to its content takes place. This desensitisation, then, allows for pornography to become part of the mainstream. With this, I posit that not only does access to the internet imply access to hardcore pornography, or that “[s]oftcore pornography has now become part and parcel of the mainstream media” (Paul, 2005: 16),¹⁸ but that pornstars are able to become public social media personalities and references to pornography¹⁹ can be made in the public realm while safely assuming that the majority of persons who view the content will grasp the intended meaning of the references. I contend that this overall normalisation of pornography consumption plays a key role in its continual availability and accessibility.

¹⁷ As mentioned in the introduction, according to the results of an online “porn addiction test”, close to 40% of those deemed most at risk of being classified as pornography addicts, in the age group of 17-24, have viewed pornography more than 500 times before turning 18 (2022).

¹⁸ Such as the globally trending and chart-topping explicit lyrics and music videos of Nicki Minaj’s *Anaconda* (2014) or Cardi B and Megan Thee Stallion’s *WAP* (2020).

¹⁹ For example, Belle Delphine (Mary-Belle Kirschner, age 22) who reached a point of earning over R20 million per month in 2020 via OnlyFans (Business Insider SA, 2020), and uploaded her latest “music video” to YouTube – a cover of Avril Lavigne’s *Sk8er Boi* that concludes with these lyrics: “Took the dick, got the bag, 10 more bedrooms to fuck in. Did the porn for my dad, hope he’s proud of his muffin. Put the fist in my kitty, beat it up ‘till I cum. If watching me makes you a pedo, then there’s 69 million” (GAMER BOY- Belle Delphine ft twomad, 2022). This content (and many other like it) can be viewed on the internet without the need to create an account or verify one’s age.

With this in mind, it is also important to note the difference between accessing public content on the internet privately or publicly. The consumption of pornography in public can be traced back to the 1970s, when pornography was in its “Golden Era” and pornographic films were screened openly in theatres where, “shielded only by the darkness and illuminated by the flickering of the projection, viewers again sat and watched side by side” (Eagle, 2015: 397–398). Such an experience is vastly different from watching pornography on a mobile phone while alone in one’s room, but also very different from sitting next to a stranger watching pornography on an airplane (Ritschel, 2022), or school children consuming pornography in class on their school tablets. It was recently reported by a South African news site that matric learners in Mpumalanga had been using the tablets purposed for schoolwork to watch pornography (Netwerk24, 2022). There has since been a request to the Department of Education to retrieve the 55 000 tablets that have been given to these Grade 12 students (ibid.). The last two of these three examples mentioned above, can be considered as instances of consuming pornography on a private device, but in the public realm. This indicates how internet pornography blurs the boundaries between the public and private, or the so-called ‘real world’ and the pornography world. The argument that pornography is (and remains) pure fantasy, situated in the private domain²⁰ (as discussed, for example, in Harmon, 2012; Paasonen, 2021), must therefore be revisited.

A recent set of interviews with teenagers in Israel about their views on pornography indicated that pornography is fully integrated in their sex lives, and that this is the new norm. A 17-year-old teen expressed that if he becomes familiar enough with the girls he flirts with, he will ask whether they would be willing to “try out” some of the sexual acts that he has seen in pornography, including “sadism, power, control, [and] soft humiliation” (Gal, 2022). He explains that when he would ask whether it is permissible for him to choke or spank them, they answer yes, because, according to him, “[t]oday everyone has a kinky mind” and “[e]verything comes from porn”. Such accounts are concerning in terms of their implications for the future, insofar as watching pornography from an increasingly young age becomes normalised, with a blurring of the boundaries between pornographic and non-pornographic ways of engaging sexually with others, resulting in an unquestioned desire to emulate in practice what is viewed in pornography. Of particular concern, would be if the latter emulation includes a desire to enact violent pornographic content, such as the re-enactments of forced sex and rape (Marino, 2022: 490). Put differently, the more that pornography infiltrates daily existence, and is normalised or viewed as mundane, the more likely it is that the belief that it is

²⁰ For some consumers, pornography may serve the purposes of fantasy, in the sense that the content depicts sexual acts that they would fantasise about experiencing themselves, but not necessarily wish to experience in reality.

appropriate to disregard what women say and have sex with them against their will, or without their consent, will feature in the real sex lives of people (Marino, 2022: 490).

The discussion in this section serves to give support for the claim that pornography does much more than merely sexually arouse its consumer. It has been argued that pornography serves to subordinate and silence women in particular, while its production and dissemination is protected under the freedom of speech. Recent empirical findings show various harmful effects of pornography consumption. Pornography consumption is also increasingly normalised in mainstream media due to its availability and easy accessibility on the internet. This normalisation has resulted in the extension of the reach of pornography into daily existence and in particular into the sex lives of adults – and, increasingly, children. Regular pornography consumers clearly support the pornography industry, but what is it to be a pornography consumer?

1.3 What does it mean to be a pornography consumer?

“You understand and acknowledge that when using the Website, you will be exposed to content from a variety of sources, and that the Website is not responsible for the accuracy, usefulness, safety, or intellectual property rights of or relating to such content. You further understand and acknowledge that you may be exposed to content that is inaccurate, offensive, indecent, or objectionable, and you agree to waive, and hereby do waive, any legal or equitable rights or remedies you have or may have against the Website with respect thereto, and agree to indemnify and hold the Website, its operator, its parent corporation, its affiliates, licensors, service providers, officers, directors, employees, agents, successors and assigns, harmless to the fullest extent allowed by law regarding all matters related to your use of the Website.”

Pornhub, *Terms of Service* (2022)

According to Similarweb (July 2022), the pornography site *XVideos.com* is ranked as the 10th most visited website *on the internet*, whereas *Pornhub.com* is ranked 12th. Thus, given the evidence that Pornhub is the 12th most visited website on the internet, the chances that any individual that is connected to the internet has heard, read of or visited Pornhub’s site is extremely high. Moreover, the chances that most of Pornhub’s visitors have never read their terms of service (as partially stated above), is also very high (Steinfeld, 2016; Karanicolas, 2021; Pulvermacher, 2021). However, Pornhub is not just a video-hosting site, but also a community platform, which indicates that internet pornography consumption offers varying levels of depth of engagement.

Users are able to create profiles with their own avatars and cover photos; view personalised feeds of updates from their subscriptions to other users, pornstars, and content partners; send friend requests

and private messages to other community members; comment on and like pornography videos; create their own public or private playlists of their favourite pornography videos and; of course, share their own videos or photos with the community (“Pornhub FAQ”, 2022). Another novel feature of internet pornography is that anyone can use their cameras to participate in and/or distribute pornography – “we can all be our own (or someone else’s) porn models” (Hirdman, 2007: 160–161). Grebowicz (2013: 50–51), calls this kind of online community the “metalevel discourse” of information sharing in which internet pornography is situated, and posits that: “There is something about the imaginary of democratized information that immediately makes it porn-friendly, or that at the very least makes people take off their clothes.” Indeed, pornography has little to no barriers when it comes to equal accessibility and availability for whomever has access to the internet. As mentioned above, the internet has also democratised pornography to the extent that anyone with access can partake in its creation and distribution by uploading their own content to pornography websites.²¹

The internet pornography industry is a profitable trade with an extensive business model. It has been argued that research on pornography does not take the economics of pornography seriously (Wilkinson, 2017), and that there is simply a lack of research on the pornography industry and its workings in general (Voss, 2012). One can thus conclude that given the vast amount of traffic that pornography websites receive and the dearth of available research on the pornography industry, being a pornography consumer does not necessarily mean that one is aware of how the industry functions. If my argument for the conceptualisation of pornography as an addictive substance succeeds, it will have subsequent consequences for how pornography websites (and other platforms that host pornographic content) are conceptualised. It would then follow that pornography websites (and any other platforms where one may find pornography) are hosts, distributors, and/or merchants of an addictive substance. To have a better grasp on the internet pornography ‘machine’, I have investigated the information available on the functioning of various pornography websites, and decided to focus on the massive conglomerate company, MindGeek. In the following few paragraphs, I wish to give some insights and a short overview of how the internet pornography industry operates.

The most watched video on Pornhub to date is Kim Kardashian’s sex tape, posted 11 years ago by *Vivid Entertainment* with over 239 million views.²² *Vivid Entertainment*, as well as *NubileFilms*, *Blacked.com*, *FakeTaxi*, *PropertySex*, *Passion-HD.com*, *HotGuysFuck.com*, and many others, are all

²¹ This ability to upload pornographic content to pornography websites has also resulted in most of pornography content being ‘pirated’, in the sense of illegally copied and shared, often without the consumer being aware that they are viewing pornography as such (Dubner, 2010).

²² *Vivid Entertainment* is owned and operated by *Gamma Billing* (who also owns and operates *Adult Time* and *Wicked Pictures*, amongst others).

listed as Pornhub's content partners ("Pornhub Content Partner Program Info", 2022). When applying to be one of Pornhub's content partners (to place one's pornography production company's content on their site), they promise more than 100 million visits per day (a minimum number, I would argue), dedicated account representatives, the most advertisement space in the industry, and exposure across the Pornhub network (in particular, on Pornhub, *YouPorn*, *RedTube* and *Tube8*).

MindGeek has the monopoly when it comes to internet pornography – owning MG Freesites Ltd. (Pornhub, YouPorn, Tube8, RedTube, *Thumbzilla* and *PornMD*, including the affiliated gay pornography sites of each, like *Pornhub.com/gayporn*, *YouPornGay.com*, etc), as well as MG Premium Ltd. (*Reality Kings*, *Brazzers*, *SeanCody.com*, *Men.com*, *MILF Hunter*, *Twistys.com*, *Babes Network*, *Playboy.tv*, *WhyNotBi.com*, *Nutaku.net*, *Str8toGay.com*, and many more). MindGeek also owns MG Billing Ltd. which runs the customer support side of purchases off their websites. Furthermore, MindGeek also owns the biller used on their platform, *Probiller*: "We use the best third-party biller for adult content, Probiller. The charge will show up as something discreet on your credit card bill which does not make mention of Pornhub. We also use encrypted HTTPS protocol for complete security while you are browsing your premium content" ("Pornhub FAQ", 2022). To no surprise, as the monopoly, MG Freesites Ltd. also owns *TrafficJunky*²³ – "an innovative web advertising and digital marketing company" that functions as the advertising arm of pornography conglomerate MindGeek. All advertisements on the tube sites owned by MG Freesites are managed through TrafficJunky. On their welcome page, they state: "Pornhub receives 130 million daily average visits. TrafficJunky serves 4.6 billion daily ad impressions. Your customers are on Pornhub, so why aren't you?" ("TrafficJunky.com", 2022).

After considering more of the finer details regarding the workings of a pornography website (such as Pornhub) as set out above, it becomes clear that there exists a high probability of the exploitation of the pornography consumer. This exploitation takes place, in particular, by means of the data mining

²³ TrafficJunky is a very important business and powerful source of income for MindGeek. In recent news (August 2022) it was announced that payments giant Visa is suspending TrafficJunky from its network amidst an ongoing lawsuit over whether Visa could be facilitating child pornography (Li & Rooney, 2022). Serena Fleites, who was 13 years old when an explicit video of her first surfaced on Pornhub.com, filed the lawsuit (Mason, 2022). Fleites' then-boyfriend had taken the video and uploaded it without her consent. MindGeek distributed the video throughout its many websites, while TrafficJunky monetized it by embedding adverts. According to the lawsuit, advertising income from TrafficJunky accounts for more than half of MindGeek's earnings (ibid.). In response to the lawsuit, a spokesperson at MindGeek implied that this case is a wrongful attack on the pornography industry: "Recently, allegations have been made that MindGeek knowingly allowed and monetised [child sexual abuse material]. These assertions are reckless and, more importantly, absolutely false. In many cases, these falsehoods have been propagated by groups whose stated agenda is to shut down the adult entertainment industry" (Li & Rooney, 2022). However, Visa's CEO and Chairman, Alfred F. Kelly, Jr., continued to officially announce that during this suspension, "Visa cards will not be able to be used to purchase advertising on any sites including Pornhub or other MindGeek affiliated sites" ("We do not tolerate the use of our network for illegal activity", 2022).

of internet pornography consumers and the selling of personal data for advertising, which is considered an unethical practice by many (Shimonski, Zenir & Bishop, 2015; Schneider & Xhafa, 2022). One study, which analysed 22 484 pornography websites, showed that 93% of these sites leak user data to a third party like Google (tracks 74% of sites) and Facebook (tracks 10% of sites) (Maris, Libert & Henrichsen, 2019).

Given the contemporary trends on pornography websites and that the sites are built for easy browsing with category tags and search algorithms, being a pornography consumer also likely means the discovery of some sexual activities that one would not have been aware of, if it was not for the exposure to pornography on the web. Sexual practices that used to be considered taboo are picking up in popularity. Pornhub published that their female viewers are proportionately 86% more likely to search “BDSM” when compared to male viewers, and gay male visitors are 12% more likely to search “BDSM” when compared to non-gay viewers (“BDSM Insights”, 2020).²⁴ Another pornography category²⁵ that pornography consumers might have encountered is bestiality. Petsex.com (“the world’s largest bestiality and animal sex site”) allows registered users to watch fifteen short films for free every day. Customers who wish to watch more videos are invited to upgrade their account by either paying a membership fee or uploading their *own* videos. This means that if you post your own bestiality pornography videos regularly enough, you will never have to pay for membership (Grebowicz, 2013: 52–55). Other examples of taboo practices or fetishes that are readily available for consumption are rape pornography, furry pornography, menstrual pornography, clown pornography, cake-sitting pornography, just to name a few. As Rule 34 of the internet states: “If it exists, there is porn of it” (Urban Dictionary, 2011; Dewey, 2016).

In conclusion, being a pornography consumer means to partake in the pornography industry, at some level, and to contribute to its success. As noted earlier in this section, if pornography is to be understood as an addictive substance, as I will argue in this thesis, then it follows that pornography websites (and any other platforms where one can find pornography) are hosts, distributors and/or merchants of an addictive substance. Subsequently, this may equate pornography websites (and others) with ‘drug dealers’ in certain countries, insofar as such a term is only applied to illegal substances – of which pornography is considered illegal in some countries.

²⁴ BDSM stands for bondage and discipline, dominance and submission, and sadism and masochism.

²⁵ According to Pornhub’s Insights statistics, their most searched term (in almost every country) for 2021 was “hentai”. For the second year in a row, “Japanese” remained Pornhub’s most viewed category, followed by “lesbian”, “ebony”, “MILF” and “anal”, while viewership of the transgender content category grew by 23%.

1.4 Concluding remarks

To take stock, pornography is defined as “sexually explicit material developed and consumed to stimulate sexual arousal, available in versatile forms (e.g., photographs and videos) and often accessed online” (Hughes, Brewer, et al., 2020: 886). Furthermore, pornography does much more than merely sexually arouse its consumer. Pornography can subordinate and silence women, men, children and trans persons, while production and dissemination of pornography remain protected under the freedom of speech. Recent empirical findings show various harmful effects of pornography consumption, and that its consumption is increasingly normalised in mainstream media due to its availability and easy accessibility on the internet. This normalisation has resulted in the extension of the reach of pornography into daily existence and in particular into the sex lives of adults – and, increasingly, children. The internet has democratised pornography to the extent that anyone with access can partake in its creation and distribution by uploading their own content to pornography websites. Therefore, uploading one’s own content, as well as simply consuming pornography, contributes to the pornography industry’s success. If pornography is to be understood as an addictive substance, as I argue in this thesis, then it follows that pornography websites (and any other platforms where one can find pornography) are hosts, distributors and/or merchants of an addictive substance. Now that a clearer comprehension of pornography and the landscape in which pornography (and its different manifestations) is created and consumed has been made and discussed, the following chapter focuses on the nature of substances and non-substances, and how our addictions to them are conceptualised.

Chapter 2: Substances, Non-substances and our Addictions to Them

Addictions can, and usually do, have grave consequences for those who suffer from them and those around the sufferers. The word suffer is key, as addiction is generally physically harmful insofar as it can result in illness, cognitive impairment, or even death (Pan American Health Organization, 2021). Addiction can also cause or exacerbate mental health issues, including depression, anxiety, and psychosis (Rehm & Shield, 2019). The social impact of addiction is also significant; it can impact or destroy relationships with families, friends and colleagues, and given how stigmatised addiction is, it can be the source of severe humiliation, self-loathing, and poor self-worth (Pickard & Ahmed, 2016: 29). Moreover, once an individual forms dependency in their addiction, withdrawal can also cause great suffering (Pickard, 2018: 11). There is no doubt that the issue of substance addiction should be taken very seriously.

In order to conceptualise pornography as an addictive substance, we must first look at the literature available on pornography addiction. Until now, pornography addiction has only been conceptualised as a potential behavioural addiction, and *not* a substance addiction (Love et al., 2015; De Sousa & Lodha, 2017; Stark & Klucken, 2017; Castro-Calvo et al., 2018; Sniewski & Farvid, 2019). This means that a clearer grasp of what addiction entails and an understanding how substance addictions differ from non-substance addictions, is necessary. For my explication of pornography addiction as a substance use disorder, I draw on the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM)²⁶. While the International Classification of Diseases (ICD) is another widely utilised system of diagnosis, it has been argued that it is used by mental health professionals more for administrative and billing purposes (First et al., 2018)²⁷.

In this chapter, I begin with a discussion of the two dominant models of addiction, namely, the Brain Disease Model and the Choice Model (Goldberg, 2020). I commence by discussing the concepts of

²⁶ The DSM is the most widely used diagnostic system by health care professionals across the world, including South Africa. This is despite arguments made against its use in South Africa, given our diverse cultural population (Burns, 2013; Kriegler & Bester, 2014).

²⁷ The DSM (and ICD) are the two major diagnostic systems (Maruta, Ono & Matsumoto, 2013), that provide classifications relevant to "public health, clinical diagnosis, service provision and specific research applications" with the aim of mitigating the suffering caused by mental disorders (Clark et al., 2017). Moreover, it has also been argued that the ICD has been unable to "stimulate research at the same level as the DSM" (Tyrer, 2014; Fluyau, 2018). The reason for this, is that the ICD is arguably less accurate and less reliable, insofar as it rejects diagnostic criteria without independent validation (Healthcare BPO, 2022). Furthermore, despite the fact that there is a relatively close correlation between the three core elements of ICD-11 substance dependence and the 11 DSM-5 criteria for substance use disorder, two of the DSM-5 items (namely, "recurrent use in situations which are physically hazardous" and "craving") do not correspond to any of the ICD-11 diagnostic criteria (First et al., 2021: 47). These two criteria, I argue, are crucial in conceptualising pornography addiction. In this sense, the DSM's existent diagnostic criteria for substance use disorder offers a better fit for the aim of this thesis.

substance addiction and non-substance addiction (commonly referred to as behavioural addiction), and consider how they can be distinguished from one another, including how we can identify whether the addiction is to the drug or to the behaviour. Moreover, the notion of consumption and how it relates to substances, overlaps with some of the suggested behavioural addictions. Given this, I argue that some behavioural addictions could potentially be reconsidered as substance addictions. This point supports my argument in the final chapter – that pornography can, and should, be conceptualised as an addictive substance.

2.1 What does it mean to be addicted to something and how do we diagnose a substance use disorder?

“Put crudely, drugs can be pleasurable – they make us feel good.”

Pickard & Ahmed (2016)

2.1.1 The two main models of addiction

Given the pervasive and widespread impact of substance addiction, it is surprising that there is little consensus regarding its conceptualisation and definition (Goldberg, 2020: 311). There are two dominant, but opposing, models of addiction: the Brain Disease Model (BDM) and the Choice Model, (CM) (ibid.). The BDM asserts that addiction, at its core, results from fundamental changes in brain function and should be regarded as a “compelling, disease-like condition” (Leshner, 1997). The CM, on the other hand, claims that we do not need to look at the individual’s brain to decide whether they have acted involuntarily or not, and that non-pathological mechanisms of choice and motivation ought to be used to explain addiction (Heyman, 2009).

One can thus conclude that these two models disagree on the “chronic nature” of addiction, along with the “amount of control that addicts can exercise” (Goldberg, 2020: 312). It is important to note that the issue regarding choice, here, has to do with the decision to continue the consumption, rather than the initial decision to consume the substance. Pickard makes this point clear (2021: 740):

“All addiction originates in non-addicted drug consumption... Initial and subsequent non-addicted human drug choices are typically guided by explicit anticipation of their effects on mental state, whether these are known through testimony or prior first-person experience. In other words, we take drugs by choice: their expected value is why we use them.”

This explicit anticipation of the effect of the substance is, in essence, a calculated risk that the consumer takes about the potential reward they will experience after consuming the substance and can be referred to as the substance's "hedonic importance" (Ainslie, 2019). Drugs and other substances (and acting out behaviours) are desired insofar as they can make us feel good and induce pleasurable experiences, or relieve negative feelings (Kennett, Matthews & Snoek, 2013; Wegmann, Antons & Brand, 2022).

The BDM of addiction as a neurobiological disease of compulsion came to the fore in the twentieth century, partly in response to an earlier view of addiction as "a sin or a vice" – the so-called moral model of addiction (Pickard, 2021: 739). Addiction was viewed in decidedly normative terms with the addict judged as 'bad' for succumbing, and 'weak' for not discontinuing their use, strongly implying that the addict has a choice or control over their use. On the brain disease model, addiction is explained by referring to what occurs on a neurobiological level in the brain (Leshner, 2001: 75). Following this model, most of the contemporary research has focused on the role and function of dopamine in addiction. Comparative brain imaging results have made it possible to show the increase in brain dopamine concentration in the limbic brain regions accountable for dopamine's reinforcing effects, particularly in the case of addiction.

According to the traditional dopamine theory of addiction, substances act as highly potent primary rewards that reinforce drug-related behaviours while evading the satiety processes that regulate normal consumption of rewards, which is thought to encourage escalation and compulsion (*ibid.*). Therefore, one can say that dopamine has two main functions: it primes us for the conditions or cues under which the enjoyable experience takes place, and encourages behaviour aimed at achieving those objectives (Kennett, Matthews & Snoek, 2013: 7). Evidence further indicates that addicted individuals' brains are more sensitive to dopamine, which in turn results in the brain's reward response to the dopamine-releasing drug to be much stronger (Butlin & Papineau, 2017). However, increased levels of dopamine, alone, do not indicate addiction, since dopamine levels can rise in both addicts and non-addicts when engaging with a drug (Goldstein & Volkow, 2002: 1642–1643). Similarly, it has been argued that changes in the brains of addicted individuals, which correlate with addictive behaviours, do not necessarily mean those brain changes were caused by the addiction (Levy, 2013). This last point shows that the BDM might stand on shaky ground when it comes to distinguishing between correlations and causations in brain imaging scans of addicted individuals.

According to the CM, addicted individuals can alter their circumstances even while they are stuck in damaging patterns of behaviour, and this improvement will depend on their options and/or the way

they frame their decisions (Heyman, 2013: 4). One could then ask why addicts continue to consume substances, despite the harmful repercussions, if they have the ability to regulate their use and choose to abstain. Pickard and Ahmed suggest that there are four possible explanations for this: some addicts have low levels of self-worth and thus disregard the negative health consequences of substance use; for some addicts, the benefits of continued substance use outweigh the costs; some addicts may continue using, because, at the time of their decision, they value drugs more than a potential, but uncertain, future benefit that would follow abstinence; and/or some addicts may choose to use because they do not know that using the substance(s) has such harmful consequences (2016: 33–39).

The BDM stands in stark contrast to the CM of addiction. The fundamental difference, once again, is whether or not addicted individuals can control their use. This divide causes the research focus, for each model, to be limited to different scopes that may not even overlap at times. Research under the BDM will operate on a brain-based methodology to identify evidence relating to the brain, while research within the CM is more likely to “address sociopsychological factors” (Goldberg, 2020: 312). Moreover, it has been argued that addiction models that regard addicts as having some control over their addiction, run the risk of benefiting those who stand to gain from the sale of addictive substances (Heather, 2017: 121). This is particularly true for individuals in the gambling, alcohol, and tobacco industries who make appeals to the individual’s “freedom of choice” and “personal responsibility” to control their usage (*ibid.*). The pornography industry, I argue, can and should be added to this list. Therefore, it is important to note that it would be ignorant to claim that addiction is a “disorder of choice” without acknowledging these consequences (*ibid.*).

The opposing nature of the BDM and CM of addiction is such that it is not clear how one should best go about trying to understand the nature of addiction. This is compounded by the fact that the lack of a conclusive evidence basis to support one model over the other, results in researchers, psychiatrists, addiction counsellors and those involved with the criminal justice system having to choose one of these models to inform their approach to addiction – possibly the one deemed most appropriate to their profession (Goldberg, 2020: 312).

There are, however, a few undisputed elements that commonly characterise addiction, which would allow for an essential,²⁸ but more neutral definition, of addiction. Sussman and Sussman have conducted a thorough literature review on the conceptualisation of addiction which incorporates different theoretical perspectives (2011). They identify the most prevalent and salient ideas, advanced

²⁸ By “essential”, I mean to suggest formulating a definition of addiction at its foundational, fundamental and most basic level.

by specialists working in the field of addiction, by looking for characteristics common to all its definitions. Together, these components are incorporated to create a description that reflects the core of this condition, while also including other points of view on the subject of addiction. Goldberg then proceeds to use their research as a starting point to formulate a more neutral definition of addiction that does not automatically exclude either characteristics of the BDM or CM.

Addiction is then defined as “a consequential mental state of the use of a substance, characterised by a preoccupation with the substance-using behaviour that is only satiated temporarily after using the substance, where the individual concerned experiences varying degrees of difficulty controlling this addictive behaviour despite its harmful consequences” (Goldberg, 2020: 313). This definition takes the seriousness of the condition into account, while acknowledging individual variation. It does this by recognising the urges and cravings experienced by the addicted individual, and their preoccupation with the substance, as well as the harmful consequences of addiction. As this definition includes the different elements that are characteristic of addiction, we can agree on a basic conceptualisation that does not inevitably lead to conflict between the two models. However, as Goldberg notes, the debate seems unavoidable when discussing the fundamental assumptions of the two models, as well as when determining the cause of drug use disorder and considering perspectives on effective therapy (*ibid.*).

2.1.2 Diagnostic criteria for substance use disorder

Regardless of which model one endorses, when an addicted individual seeks treatment, clinical diagnosis is generally made on the basis of diagnostic criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders (DSM).²⁹ Since the third edition of the DSM, published in 1980, the term “drug addiction” has been replaced with the more neutral term, “substance use disorder” (SUD) (Robinson & Adinoff, 2016). This name change is likely informed by several factors. These include the attempt to encompass and describe a wider range of disorder severity (“from a mild form to a severe state of chronically relapsing, compulsive pattern of drug taking”), the lack of consensus about definitions of addiction, and potentially the desire to avoid the negative connotation of the term ‘addiction’ (APA, 2022: 543). Pickard also explicitly points out that she uses the term ‘addict’ as opposed to “person with a substance use disorder” with “genuine caution”, due to some viewing the term with various normative cultural connotations that could lead to stigmatisation (2021: 739).

²⁹ Questioning whether an addiction should be conceptualised as a mental disorder forms part of an ongoing debate that lies outside the scope of this thesis. I do wish to address this issue in future research, but for the purposes of this thesis, I will concede that the diagnoses for substance use disorders and non-substance use disorders, as described in the DSM-5-TR (2022), are in line with all other mental disorders in that they are made on the basis of the presence of clinically significant and functionally impairing harm or distress.

However, she adds that ‘addict’ and ‘addiction’ are terms used by many addicts themselves as a way to self-identify and critically reflect on their own experiences (ibid.). I contend that this intentional substitution in the DSM might end up having the unintended effect of further shaming and othering addicts, insofar as the terminology, and the word addiction, continue to be regarded as taboo and are not adequately discussed within the professional mental health circles. However, when I use the terms addiction, addict or addicted individuals, I do not intend to diverge from the DSM’s project. I also take other scholars’ use of the term ‘addiction’ in their research as referring to the same (or at least, approximately the same) as a “substance use disorder” and/or a “non-substance use disorder”³⁰ as stipulated in the DSM-5-TR (2022), depending on the context in which the research was conducted.

Currently, the DSM-5-TR lists 11 different biopsychosocial criteria for diagnosing all substance use disorders (APA, 2022: 545–547). This list is concisely paraphrased by Zou et al. to be sorted into subgroupings of impaired control over substance (criterion 1-4), social impairment (criterion 5-7), risky use (criterion 8-9), and pharmacological criteria (criterion 10-11) as stated below (2017: 25):

1. “Taking larger amounts or over a longer period than intended;
2. A persistent desire or unsuccessful effort to cut down or control the use of the substance;
3. A great deal of time is spent in activities necessary to obtain and use the substance or recover from its effects;
4. Craving, or a strong desire or urge to use the substance;
5. Recurrent use resulting in a failure to fulfil major role obligations at work, school, or home;
6. Continued use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of substances;
7. Important social, occupational, or recreational activities are given up or reduced because of substance use;
8. Recurrent use in situations in which it is physically hazardous;
9. Drug/substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance;

³⁰ It is interesting to note, the full term “non-substance use disorder” only appears once in the DSM-5-TR (2022) (on page 408) as part of the discussion on the co-occurring disorders and differential diagnosis of sleep-wake disorders. However, “non-substance-related disorder” is the term used to categorise gambling disorder. In this thesis, I will assume that “non-substance use disorder” and “non-substance-related disorder” is, and can be, used interchangeably at this time, since gambling disorder is the only acknowledged non-substance use disorder in the DSM, and thus the only non-substance-related disorder classified to date.

10. Tolerance, as defined by either of the following: (a) a need for markedly increased amounts of substance to achieve intoxication or desired effect, (b) a markedly diminished effect with continued use of the same amount of substance;
11. Withdrawal, as manifested by either of the following: (a) the characteristic withdrawal syndrome for substance, (b) substance is taken to relieve or avoid withdrawal symptoms.”

We can thus conclude that each criterion of substance use disorder listed here can relate back to Goldberg’s (2020: 313) neutral definition of addiction, which is, firstly, “a consequential mental state of the use of a substance” (refers to all subgroupings). Secondly, addiction is “characterised by a preoccupation with the substance-using behaviour” (refers more specifically to subgroupings of impaired control over substance and possibly risky use). Thirdly, the substance-using behaviour “is only satiated temporarily after using the substance” (refers more specifically to subgroupings of impaired control over substance and pharmacological criteria). Fourthly, “the individual concerned experiences varying degrees of difficulty controlling this addictive behaviour despite its harmful consequences” (refers to all subgroupings).

Therefore, understanding both addiction, at its most fundamental level, and the DSM diagnostic criteria for substance use disorder, is crucial in further understanding how the DSM conceptualises non-substance use disorder. In the following section, I will expand the notion of behavioural (non-substance) addictions and discuss how non-substance disorders are diagnosed and conceptualised.

2.2 What does it mean to be addicted to doing something and how do we diagnose a non-substance use disorder?

“How can it be that heroin addicts, whose addiction seems to have been caused by repeatedly injecting a powerful narcotic, have the same problems as gamblers and binge eaters?”

Foddy (2017)

In everyday contexts, when someone claims to be addicted to *doing* something, we might understand them to mean various things. It may bring up questions about the person’s objective ability to control or regulate their behaviour or whether they themselves perceive that they are able to control or regulate their behaviour, or not. A perceived or actual lack of control over behaviour can be considered a compulsion (Everitt & Robbins, 2005; Henden, Melberg & Røgeberg, 2013). How we understand compulsions has varied over time and continues to be debated. Compulsions can be regarded as “caused by irresistible desires” (Zaragoza, 2006: 251) that manifest as “a tendency to repeat the same, often purposeless acts, which are sometimes associated with undesirable

consequences” (Berlin & Hollander, 2008: 58) and arise from “irresistible pressure to perform some behaviour” (Foddy, Kahane & Savulescu, 2013: 1194). Compulsion is also viewed as a genuine psychological phenomenon that occurs when an “agent decides that a certain action would be the one to perform, but feels pulled to and ends up doing something else, where she is not at fault for the outcome” (Gorman, 2022: 3).

It has previously been argued that addiction is a “state of compulsive drug use” (Hyman, Malenka & Nestler, 2006). However, when it comes to understanding the role of compulsions and their prevalence in addictions,³¹ much of the literature on psychiatric diagnosis is unclear³² about the issue of whether compulsive drug use is a fixed component of addiction in the first place (Foddy, Kahane & Savulescu, 2013: 1193). Pickard contends that the data unmistakably demonstrate that many addicts do not feel driven to use frequently, and that compulsion cannot always account for continued use despite the harmful effects of addictions (Pickard, 2018: 11). Foddy et al. go as far as to posit that the term ‘compulsion’ seems to “enter the psychiatric discourse by way of an accident rather than by any particular empirical finding” (2013: 1193). From these variations of factors that could form part of compulsions, we can deduce the most basic element: a compulsion is “a desire so strong that it is impossible for it not to lead to action” (Pickard, 2018: 10). I would argue that another important element in distinguishing compulsive behaviour from non-compulsive behaviour, is the possibility of doing otherwise. A non-compulsive behaviour, then, implies that there is more than only one behaviour or action that can be realised, as it makes little sense to speak of experiencing a compulsion to do something when the possibility to act differently does not exist. This notion, however, asks for a closer look at whether our behaviours are predetermined or not.

Foddy et al. point out that most cognitive science researchers follow the deterministic model to explain human behaviour (2013: 1194). That is, that human behaviour is caused entirely by deterministic factors, such as our biology and external environment. One could then say that these factors act as some sort of irresistible pressure that drives our actions. However, according to this deterministic model and the definition of compulsion as described above, all of our behaviours would then be conceptualised as compulsive. This would make the concept of compulsion redundant. We thus have to conclude that a deterministic model cannot account for the differentiation between compulsive and non-compulsive behaviour. Furthermore, we can conclude that we will not find a

³¹ It has also been argued that there is great difference between ‘addiction’ and ‘compulsion’ and that these terms should not be used interchangeably, for it may influence the nature of treatment (Neves, 2021).

³² Since compulsion negates choice, this lack of clarity again points towards the underlying disagreement between the CM and the BDM as discussed in section 2.1.1 of chapter 2.

working definition for compulsion in determinism. The other option to consider would be the compatibilist view. This view posits that, while our behaviours are caused by our biology and external environment and even though we may be unable to resist the behavioural outcomes, only “certain kinds of causes will make a person perform actions that are characteristically impulsive” (Foddy, Kahane & Savulescu, 2013: 1194). However, this view complicates the process of establishing which approach would be most correct in judging what it would mean to act in a non-compulsive way that is still caused by deterministic factors. This leaves one in a precarious position. Not only does this uncertainty result in challenges to advancing rigorous academic research on compulsions, it also has great legal and moral implications regarding accountability and self-control.

Setting aside the issue of conceptualising compulsion, Zou et al. claim that non-substance addiction involves “similar reward system circuitry” as substance addiction and that non-substance addiction has become a “new rising problem in modern society” (2017: 22). Regardless of how we conceptualise compulsion, or how involved compulsions can be in addictions, we can continue to conceptualise behavioural addiction separately. The main characteristic of non-substance addiction is the “failure to resist an impulse or drive to perform a behaviour that is harmful to the person or to others” (Wei & Zhang, 2017: 109). Moreover, it can be argued that if behavioural addictions do not share this main characteristic, they should be defined differently and not be labelled as addictions (Griffiths, 2017: 1718). All substance and non-substance use disorders, or addictions, have unique traits that distinguish them from one another and from so-called normal functioning,³³ such as chasing losses in gambling compared to gambling on occasion within a social context with friends. However, it is the similarities, the main characteristics, that allow for the behaviour to be labelled an addiction.

The DSM-5-TR stipulates that there are “behavioural conditions that do not involve ingestion of substances [that] have similarities to substance-related disorders” and that the category of non-substance-related disorder is included in the chapter with substance-related disorders because such behaviours “activate reward systems similar to those activated by drugs of abuse and produce behavioural symptoms that appear comparable to those produced by the substance use disorders” (APA, 2022: 543, 662).³⁴ In this way, we can consider if Goldberg’s formulation of addiction, can be adapted to apply to non-substance addictions. In other words, can we claim that addiction is a “mental state that results from using [or doing] a [non-]substance, in that it is characterised by a preoccupation

³³ It must be noted that the task of defining “normal functioning” is fraught with complexity (First & Wakefield, 2013), particularly in the presence of various competing accounts (Radden & Poland, 2021).

³⁴ It has also been argued before that every rewarding operant behaviour has the potential of becoming addictive (Foddy, 2017), and that “behaviour science experts believe that any source which is capable of stimulating an individual, could become addictive” (Alavi et al., 2012: 291).

with the [non-]substance-using [or doing-behaviour] that is only momentarily satisfied after using [or doing] the [non-]substance, where the individual in question has varying degrees of difficulty controlling this addictive behaviour despite its negative effects” (Goldberg, 2020: 313)³⁵

To be able to determine this, we must have a detailed look at examples of non-substance use disorders in the DSM-5-TR (2022) to see if this adapted definition can apply to non-substance addictions as well. As mentioned above, there is only *one* non-substance use disorder listed in the DSM. While the DSM acknowledges that there are other repetitive behaviours that can align with the criteria for substance use disorders (such as “sex addiction”, “exercise addiction”, and “shopping addiction”), only *one* disorder has “sufficient data to be included” in this section of non-substance use disorders (APA, 2022: 543), namely, gambling disorder (ibid., 662). The diagnostic criteria for gambling disorder describes it as a “persistent and problematic behaviour” that leads to “clinically significant impairment or distress” (ibid., 661). The 9 criteria listed (of which the individual must exhibit four or more over the period of 12 months to be diagnosed with gambling disorder) are as follows (ibid.):

1. “Needs to gamble with increasing amounts of money in order to achieve the desired excitement.
2. Is restless or irritable when attempting to cut down or stop gambling.
3. Has made repeated unsuccessful efforts to control, cut back, or stop gambling.
4. Is often preoccupied with gambling (e.g., having persistent thoughts of reliving past gambling experiences, handicapping or planning the next venture, thinking of ways to get money with which to gamble).
5. Often gambles when feeling distressed (e.g., helpless, guilty, anxious, depressed).
6. After losing money gambling, often returns another day to get even (“chasing” one’s losses).
7. Lies to conceal the extent of involvement with gambling.
8. Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling.
9. Relies on others to provide money to relieve desperate financial situations caused by gambling.”

Given these criteria, let us now return to Goldberg’s (2020: 313) definition of addiction and apply it to gambling disorder: “[gambling disorder] is a consequential mental state of [gambling], characterised by a preoccupation with the [gambling] behaviour that is only satiated temporarily after [gambling], where the individual concerned experiences varying degrees of difficulty controlling this addictive behaviour despite its harmful consequences”. Notwithstanding that this formulation only captures gambling disorder in its most general sense, we can see that this definition of addiction still

³⁵ Whether we *do* or *use* a non-substance is a worthwhile issue to explore, but deserves its own focus and is thus omitted from this thesis for future research.

successfully applies to gambling disorder, a non-substance use disorder. Thus, once one behaviour that does not involve the consumption of a psychoactive substance is formally classified as an addiction (i.e., having the diagnostic criteria for gambling disorder categorised under non-substance use disorder), there is “no a priori reason why any other behaviour cannot be classed as an addiction”, which opens the “theoretical floodgates in the behavioural addiction area” (Griffiths, 2017: 1719). I agree that there is no self-evident reason why any other excessively performed behaviour cannot also be classified as an addiction. However, as previously mentioned, more scientific-based research and evidence is needed, before such classification can come into effect.

While I have discussed the differences between substance addictions and non-substance/behavioural addictions (and their related disorders) in the DSM-5-TR (2022), I am not yet in a position to successfully argue for the conceptualisation of pornography as an addictive substance. In order to make this claim, I first need to clarify what “makes” something a substance or a non-substance. This will be the focus of discussion in the following section.

2.3 What makes something a substance and how do we consume it?

“One thing I've learned is it's better to be addicted to things than people.

You get hooked on a *thing* and if someone takes it from you, you can find another source.”

Riley (2009)

The paradigmatic example of a substance is, of course, drugs. The most common addictive drugs, also included in the DSM, include alcohol, caffeine, cannabis, hallucinogens, inhalants, opioids, sedatives, hypnotics and anxiolytics, cocaine and tobacco (Zou et al., 2017: 24). This list suggests that substances can be ingested, injected and inhaled. More specifically, a psychoactive substance is defined as “any drug that acts on the brain to alter its function, resulting in temporary changes in perception, mood, consciousness, or behaviour” (Milhorn, 2018: 3). Examples of psychoactive drugs include all of those listed above – even tobacco is considered a psychoactive drug, since it contains “mind-altering” nicotine that affects the skeletal, gastrointestinal, cardiovascular, peripheral, and neurological systems (Murray, 1991).

‘Non-substance addiction’ and ‘behavioural addiction’ can (at this time) be used interchangeably. Therefore, we can infer that a non-substance (in the case of addiction) is a behaviour and not a distinct or tangible thing that we can inject, inhale or ingest like we can with drugs. Several claims can be

made about substances and how we interact with them. Substances can be used, abused,³⁶ cultivated, trafficked and made illegal to sell and buy. Substance use and/or abuse can co-occur with each other and other non-substances (Hayley, Stough & Downey, 2017). The consequences of using an addictive substance can include “loss of productivity, increased health-care costs, and increased morbidity and mortality” (Milhorn, 2018: 4). Substances can also be consumed voluntarily or involuntarily (for example, buying and consuming marijuana socially versus illicitly placing or ‘spiking’ someone’s drink with a ‘date rape’ drug) (ibid., 6). Substances (and non-substances) can cause physiological and/or psychological dependence (ibid., 7), which refers to the onset of withdrawal symptoms upon discontinuing the use of the substance or ceasing the non-substance or behaviour (Harun et al., 2020). Withdrawal symptoms can range from increased appetite, anxiety, insomnia, and diarrhoea (Hughes, Peters, et al., 2020), to dizziness, fatigue and flu-like symptoms (Sørensen, Jørgensen & Munkholm, 2022), depending on which substance use or behaviour was ceased. It has also been argued that withdrawal symptoms may lead to feelings of guilt and/or denial of problems related to using the drug or performing the behaviour (Milhorn, 2018: 7).

Preeminent addiction specialist, Gabor Maté, posits that, “[l]ike the hardcore addict’s pursuit of drugs, much of our economic and cultural life caters to people’s craving to escape mental and emotional distress” (2009: 299). In a similar vein, Foxall and Sirgurdsson (2011) claim that substance consumption, from the recreational to the addictive, can be modelled as consumer behaviour – from everyday purchases of essentials, through borrowing money, destroying the environment, obsessive shopping, to excessive consuming in the case of addiction. According to *Dictionary.com* (2022), the term ‘consume’ originates from Latin *consūmere* which refers to the act of devouring something: from *con-* (intensive) + *sūmere*, which means “to take up”, and from *emere*, which means “to take and/or purchase”. An ill patient can consume their pills and a fire can consume a forest. *Merriam-Webster.com* further notes that ‘consume’ can refer to doing away with something completely – as in, after something is consumed, it is “used up” or “wasted or burned away”. I will call this the *primary way* of consuming. In this way, it appears as if only physical substances, that can physically be broken down into smaller pieces (be it substances that are purely chemical or physically tangible), can be consumed. However, since the dawn of the internet, this is, arguably, no longer the case.

The internet allows for the mass consumption of vast swathes of media by significant numbers of individuals. The term ‘consuming’ in this context, however, requires further clarification. What does

³⁶ The term ‘substance abuse’ describes the excessive use of a substance that is harmful to oneself, society, or both (Griffin, 1990). I note here that the DSM-5 no longer uses the term ‘abuse’; instead, it integrates drug abuse and dependence into a single condition that is graded on a scale from moderate to severe (Milhorn, 2018: 13).

it mean to consume media online? Articles on news websites or humorous YouTube videos do not disappear forever once they are consumed by individuals, yet we do employ the term ‘consuming’ (as in, “to take on board”) when viewing media online. I will call this the *secondary way* of consuming. This also links to the notion of materialistic consumerism and its negative connotations: “the obsessive consumption of goods, exploitation of the people who create them and greed” (Fenwick, 2022: 73). In some sense, every person has become a consumer of something. Certain items are used up and physically cease to exist after consumption (as the dictionary definitions above suggest from the origin of the term), but much of what we consume today does not disappear in this way.

Thus, I ask: is it necessary that, for something to be considered a substance, it will be the case if and only if that something has been “taken in” by an individual in the primary way of consuming? If not, then it follows that substances can also be consumed in the secondary way of consuming – as most of us do, through being connected to the internet and living significant portions of our lives online. The notion of consumption and how it relates to substances clearly overlaps with some of the suggested behavioural addictions. As previously noted, no substance can be consumed without the *action* of consumption – be it through ingesting, watching, injecting, reading, inhaling or hearing the substance. Given this observation, I argue that it may be difficult to ascertain whether the addiction is related to the drug or to the behaviour.

I now wish to further expand on how we differentiate, conceptually, between an addiction to a substance and an addiction to a behaviour. There is minimal academic literature focused on this issue, which could imply that insofar as we have a comprehensive understanding of addiction itself, the distinction is thought not to be significant. In other words, it may be the case that it has not yet been considered how valuable such a distinction may be (or not, in the case of arguing that we do not need to differentiate and should rather operate within the broader understanding of addiction). I do not here posit that the established literature is necessarily incorrect, but merely point out that what makes us addicted to a behaviour rather than a drug (or vice versa) is under-researched. Here, a brief vignette, and various questions it elicits, may be helpful.

Nora is addicted to smoking cigarettes. She has been smoking cigarettes for 5 years now. She has a favourite brand, but if the shops do not have it in stock, she will settle for another. She always keeps a lighter in the front pocket of her bag, so as not to lose it or forget where to find it. She smokes about one and a half to two packets of cigarettes per day. She smokes inside the house, and also in her bed, immediately after she wakes up in the morning, and before she goes to sleep at night. When she is short of money for cigarettes, she might feel the urge to snack more during the day or consciously

pinch her lips with her thumb and index finger. She wants to stop smoking, but has failed at many attempts to do so. She knows that her smoking is influencing her social life, because very often she prefers staying home to be able to smoke freely, to avoid feelings of withdrawal and major cravings, over going out to socialise with her friends. In the last year, Nora has felt particularly distressed about her smoking.

Nora, according to the DSM-5-TR, can be diagnosed with tobacco use disorder (APA, 2022: 654–655), as she has exhibited more than two of the necessary criteria within a 12-month period. The drug related to this substance use disorder is tobacco cigarettes. However, it is clear that there are many different kinds of behaviours linked to this substance use, such as keeping her lighter in the same place, smoking in her bed (which could be hazardous), and pinching her lips to substitute the feeling of a cigarette in her mouth. Alavi et al. (2012: 290), claim that behavioural (non-substance) addiction is similar to substance addiction, except that the person is not addicted to a substance, but rather to the behaviour or the feeling produced by the relevant action. However, when reading about Nora’s case, we do not question whether she might be addicted to these linked *behaviours* listed above. Instead, we assume that it is clearly the drug she is addicted to and that the behaviours are interpreted as manifestations or coping mechanisms of the substance addiction. However, what if she had these experiences with other smokeable drugs? How can we eliminate that Nora is addicted to the act of *smoking* instead of addicted to tobacco?

To attempt to answer this, we must now return to the classic exemplar of non-substance addiction – gambling disorder. Here, the acquisition of money plays a major role in diagnosing gambling disorder (APA, 2022: 661). The diagnostic criteria refer to “needing to gamble with increasing amounts of money”, “thinking of ways to get money with which to gamble”, and “relying on others to provide money to relieve desperate financial situations caused by gambling”. While the gambler will not, of course, inject, ingest or inhale the money, how can we eliminate that the gambler is addicted to *money*? Money can be perceived as a tangible thing (be it money in physical paper and coins or via credit or EFT payments). Money is not a psychoactive drug (generally what a substance is taken to refer to, in the case of substance addictions), but neither is food.³⁷ “Food use disorder” has not yet been acknowledged in the DSM, but some have claimed that food addiction should be recognised as a behavioural addiction (termed as an “eating addiction”), much like gambling disorder (Hebebrand et al., 2014). However, the majority of studies have found food addiction rather to be a kind of a substance use disorder (i.e., “highly palatable food use disorder”, “refined food use disorder”, or

³⁷ There is an ongoing debate about what should be considered the diagnostic construct of food addiction (Blumenthal & Gold, 2010; Davis et al., 2011; Pai, Vella & Richardson, 2014; Gordon et al., 2018; Vasiliu, 2022).

simply “food use disorder”) (Ifland et al., 2009, 2015; Lustig, Schmidt & Brindis, 2012; Meule & Gearhardt, 2014; Nolan, 2017; Schulte, Potenza & Gearhardt, 2017).

Meule and Gearhardt (2014) compared the symptoms of food addiction to the diagnostic criteria for gambling disorder and discovered that, despite some similarities (such as unsuccessful attempts to cut back), the symptoms of food addiction more closely resembled those of a substance use disorder. This is because the consumption of a substance (food) was necessary (as with all substance addictions) and certain behavioural criteria were incompatible (*ibid.*). Additionally, it has been argued that the presence of a behaviour (such as bingeing on food) alone, does not cause an addictive-like response – a substance with abuse potential must also be present (Vasiliu, 2022: 2).

Research indicates that while both behavioural and substance-related elements may contribute to the addictive process, the symptoms of food addiction (such as brain reward changes, impaired control and substance sensitisation) more closely resemble those of a substance use disorder than those of a behavioural addiction (Gordon et al., 2018), because some foods have been found to be more addictive than others (e.g., chocolate vs. high fiber foods) (Schulte, Potenza & Gearhardt, 2017). Addictions to behaviours, as the term ‘behavioural addiction’ implies, involve dependency on a behaviour rather than a substance. However, the addictive-like consumption of food involves both a behaviour (eating) and substance (food) (Gordon et al., 2018: 13). Furthermore, there is evidence that several classic drug addictions (including tobacco use disorder, as with Nora’s case above), *also* involve behavioural-dependent habits. For instance, due to the close association between the effects of the substance (tobacco) and the act of consuming it, it is the behaviour adjustment that is frequently necessary in the treatment of tobacco use disorder (e.g., smoking) (Gordon et al., 2018; National Institute on Drug Abuse, 2022a). Nevertheless, since tobacco is the “primary driver” of the addiction, it is not classified as a non-substance addiction, but as a substance addiction (Gordon et al., 2018: 13).

In the same manner, I argue that pornography is the primary driver of pornography addiction. It then follows that if pornography is the primary driver of pornography addiction, it is a substance addiction. As Vasiliu has pointed out, the presence of a substance with abuse potential is necessary in conceptualising a substance addiction. As discussed in section 1.2 of chapter 1 and in forthcoming sections 3.1 and 3.2 of chapter 3, pornography certainly has the potential to be abused.

2.4 Concluding remarks

Understanding both addiction, at its most fundamental level, and the DSM diagnostic criteria for substance use disorder, is crucial for further understanding how the DSM conceptualises non-substance use disorder. This entails clarifying what make something a substance or a non-substance. As explained in this chapter, substances can be consumed in many ways, besides the *primary way* (injecting, inhaling and ingesting). The *secondary way* of consumption clarifies how pornography can be consumed as a substance. Given empirical research that shows how the brain responds to (excessive) pornography consumption, and how similar *that* brain response is to that of other known addictive substances, I argue that pornography should also be considered an addictive substance. Furthermore, as explained, an addictive-like consumption of a substance involves both a behaviour and substance. In the case of pornography, the accompanied behaviour involves consumption, by means of watching, listening and reading, as explained in section 1.1 of chapter 1. In the following chapter, I conclude my argument for pornography as an addictive substance by discussing pornography addiction and why it matters that pornography is conceptualised as an addictive substance. Then, I consider what the diagnostic criteria for pornography use disorder might entail.

Chapter 3: Pornography as an Addictive Substance and Pornography Addiction as Pornography Use Disorder

In 2010, Steve Jobs explicitly stated that Apple products such as the iPhone, iPod and iPad were not made to use for pornography consumption (Chen, 2010). In 2021, statistics showed that mobile devices carried 86% of all Pornhub's traffic worldwide, with 83% thereof by smartphones, of which 45% were Apple devices ("2021 Year in Review", 2021). These statistics would support the view that Job's comments were not only arrogant, but disingenuous (Maddison, 2013: 170). Developments and innovations in technology have undoubtedly been the primary driver in the increased consumption of pornography over time (Harmon, 2012). While streaming and downloading services are becoming quicker, more dependable, and more popular than DVD, Blu-ray, and other satellite services, pornography has been viewed in this manner, via mobile devices, for years (ibid.). Consumers have become accustomed to watching TV and movies on their PCs, laptops, tablets, and smartphones – and watching pornography is no different. The desire for pornography has fuelled the market for mobile media devices (including the various Apple products) and the technology that powers them.

In this final chapter, I give a brief overview of the contemporary research on pornography addiction (as well as the lack thereof), and discuss how the notion of pornography addiction is used and perceived within the pornography consumer community. I then proceed to argue that pornography can be conceptualised as a kind of substance, and specifically, an addictive substance, and why this conceptualisation is crucial. Finally, I draw from the general diagnostic criteria in the DSM-5-TR (2022) for substance use disorder to propose how pornography use disorder should be diagnosed in the future, after more necessary scientific research has been conducted. I argue that conceptualising pornography as an addictive substance may inform an increased sense of urgency for future studies on pornography addiction, as well as a deeper understanding and acknowledgement of the potential adverse effects faced by pornography consumers.

3.1 Pornography addiction: Perspectives from researchers and consumers

"Forgive me for sounding nostalgic, but considering the seemingly infinite availability of pornography on the web today, I sometimes fondly remember my teenage years when searching for pornography had a logical endpoint."

Arroyo (2006)

Revisiting the question indirectly considered in chapter 1, we can ask: why do people watch pornography? One study found that there are various motivating forces informing the consumption of

pornography, namely, seeking sexual gratification, exploring sexual fantasies, experiencing sexual curiosity and practicing self-exploration, desiring emotional distraction, suppression and/or stress reduction (Bo et al., 2021: 172), and to alleviate boredom (Moynihan, Igou & Tilburg, 2022). This list of reasons can all relate back to some kind of experienced pleasure, including the relief or avoidance of negative emotions. However, these reasons might not be the same for those who are addicted to pornography. According to one study, 60% of the participants (with an average age of 25) experienced erectile dysfunction or challenges in becoming aroused with their partners, but could do so when watching internet pornography (Voon et al., 2014). These results are consistent with the findings of a more recent study, which actually claimed, and set out to find, the opposite (Prause & Pfaus, 2015). Therefore, it can be inferred that, as with all other addictions, one can become dependent on pornography – in the case of pornography addiction, particularly to experience sexual arousal.

3.1.1 What does the research on pornography addiction show?

Regarding research findings pertaining to pornography consumption, De Alarcón et al. (2020) notes that some of the few, if not the only, sources that track pornography use in a general population are Wright's study (2013) on the use of pornography in the American male population, and Price's study (2016), which builds on Wright's research by distinguishing between age and the effects before and after the introduction of internet pornography. This further drives the point about how under-researched modern day pornography consumption (and pornography addiction) is. In these studies, there are some noteworthy details concerning consumption patterns of pornography. Such is shown by Price's longitudinal study, finding that from 1999 onward, the male generation born between 1963 and 1972 showed only a slight drop in their usage, indicating that their intake of pornography has remained largely stable (Price et al., 2016). Since Price explicitly refers to only a "slight" drop in pornography consumption, one can infer that he may have expected more of a significant drop, due to the participants' older age. However, it appears that with the introduction of internet pornography, and its easy accessibility and availability (compared to the much lesser extent, thereof, for offline pornography), the expected decrease in pornography consumption is not realised. Furthermore, starting in 1999, the likelihood of women between the ages of 18 and 26 watching pornographic material increased from two to three times more than that of women between the ages of 45 and 53 (ibid.). De Alarcón et al. state that these two findings could be connected to the technology-driven changes in pornographic consumption (moving from offline to online consumption) (2020: 264), since young people (ages 15-24) are 1.24 times more likely to connect to the internet than the rest of the global population (International Telecommunication Union, 2020).

While pornography consumption has been classified as a behaviour that can qualify as an addiction in serious cases (Love et al., 2015; De Sousa & Lodha, 2017; Stark & Klucken, 2017), it has also been suggested that the majority of pornography consumers are *not* addicted (Willoughby, Young-Petersen & Leonhardt, 2018). However, this study, for example, only has a sample size of 908 adults from the United States (ibid.). To date, the only study on pornography consumption and addiction with a representative sample that is large enough to encompass the nature of a general population (de Alarcón et al., 2020: 264), is a study conducted in Australia. With a sample size of 20 094 participants (between the ages of 16 and 69), this study holds that 84% of male participants and 54% of female participants reported having viewed pornographic material in the past, with three-quarters of male participants and more than one third of female participants having viewed pornographic material in 2017 alone (Rissel et al., 2017). Of the female participants, 1.2% stated that they “feel addicted to pornography”, and 4.4% of male participants reported similarly (ibid.). Given that participants self-reported their pornography addiction, the reliability of this study to represent the true prevalence of pornography addiction is questionable. Moreover, because the reports were presumably based on a broad understanding of what an addiction comprises, these self-reports might be biased, making them an even less reliable source.

It has been proposed that pornography consumption becomes problematic when any use of pornography leads to a considerable detrimental impact on the consumer’s intrapersonal, interpersonal, or extrapersonal relationships (Sniewski, Farvid & Carter, 2018). However, as mentioned in section 2.2 in chapter 2, there is currently no official set of diagnostic criteria for pornography addiction in the DSM. Because of this exclusion, attempts at prevention, research, and therapy have been hampered, and clinicians are unable to make a formal diagnosis of pornography addiction as a type of behaviour disorder (Potenza et al., 2017). The closest related (due to its existence in the online environment and similar manner of engagement) of the criteria sets listed under “Conditions for Further Study” in the DSM-5-TR, is internet gaming disorder (APA, 2022: 913). The DSM further notes that, according to reports, the Chinese government has classified online gaming as a “addiction”, and in South Korea, where treatment and preventive programs have been put in place, internet gaming is seen as a public health threat (Asskoumi, 2021; Kim, Lee & Nam, 2021; Yang & Goh, 2021; APA, 2022: 914). This conceptualisation of gaming addiction and subsequent implementations of regulations arose due to 20% of the South Korean population being at risk of developing video game addiction (Asskoumi, 2021), while The China Internet Network Information Centre announced that in 2018 over 30% of Chinese children were suffering from gaming

addiction (Xing, 2021). While one of the DSM-5 work groups³⁸ examined more than 240 studies and found numerous underlying parallels between drug addictions and those described in the literature on internet gaming (i.e., tolerance, withdrawal, recurrent failures to cut back or stop use, and impairment of daily functioning), the literature “suffers...from lack of a standard definition [of addiction] from which to derive prevalence data” (ibid.).

Supported by studies and other sources, the universally known markers of addiction may have been the source to inform the self-reports given by the participants in the Australian study on pornography addiction mentioned above. These include: tolerance to pornography and needing novel material to induce the same (or higher) effect of sexual arousal, withdrawal when not consuming pornography, recurrent failures to cut back or stop pornography use, and impairment of daily functioning, possibly pornography consumption interfering with daily tasks or inability to function as normal without consuming pornography (Hilton, 2013; Wilson, 2014; Gola et al., 2017; Sniewski & Farvid, 2019; Antons & Matthias, 2020; Palazzolo & Bettman, 2020; Fernandez, Kuss & Griffiths, 2021; Smaniotto, Le Bigot & Camps, 2022). In chapter 2, it was noted that addicted individuals’ brains are more sensitive to dopamine, which in turn makes the brain’s reward response to the dopamine-releasing drug much stronger (Butlin & Papineau, 2017). One study found that men with problematic pornography use³⁹ showed “stronger reward system activity towards cues predicting sexual stimuli” than men who did not exhibit problematic pornography use (Gola et al., 2017). This finding strongly suggests that the effect of excessive pornography consumption has an effect on the brain that is similar to that of substance addictions.

According to Doidge (2007), when someone views internet pornography regularly and excessively, dopamine is continuously released into the reward system which stimulates the “neuroplastic changes that reinforce the experience”. He further describes how these neuroplastic adjustments create mental blueprints for sexual arousal. In other words, such neuroplastic changes in the brain can alter how and when we become sexually aroused. Doidge further argues that the previously established mental blueprints (before the neuroplastic changes are created by consuming pornography excessively and regularly), cannot compare to the newly developed and continuously reinforced mental blueprints generated by continued excessive consumption of internet pornography (ibid.). This explains why, in order to maintain the higher level of sexual arousal, the addicted individual may progress to consume more explicit and graphic internet pornography, and with increased frequency.

³⁸ The DSM work groups consist of experts in the disciplines of mental health and medicine who are tasked with updating and developing the DSM.

³⁹ In much of the literature, “problematic pornography use” is used, and not “pornography addiction”. This is likely due to the lack of consensus that problematic pornography use can be considered an addiction, as I put forward in this thesis.

Of particular interest is the recent announcement that a Chinese electrical engineer team has designed and developed a “mind-reading” device that can detect a difference between when a person is consuming pornographic material and non-pornographic material by observing spikes in the brainwaves (Cheng, 2022). This device is said to be able to adapt to the brainwaves of a human, while being able to filter out other signals that would come from other feelings or emotions (Smith, 2022). The intended users of the tool are China’s “Jian huang shi” (“porn assessors” or “pornography appraisers”) who look for sexual material in videos and images posted on the internet or social media platforms, fulfilling their primary duty of scouring the internet for unlawful sexual content in order to enforce China’s ban on pornography (Meitav, 2022). It has been claimed that the main challenge facing such pornography appraisers is human fatigue (ibid.).⁴⁰ Using this device, a Jian huang shi merely needs to sit passively in front of a screen, and the device will function autonomously to cover a significant quantity of quickly changing material until the censor device blinks (ibid.). This further supports the idea that even when pornography consumers are passively viewing pornography, the effects can be seen in the brain.

Despite pornography addiction not being a diagnostic category in the DSM, it is treated as one for practical purposes. For example, there are various websites, self-help books, pornography website blockers and psychologists and counsellors who specialise in pornography addiction. Some counsellors offer a free “Porn Addiction Assessment” that can be taken online, prior to counselling sessions (Charlie Mansell-Pleydell, 2022). Some of the questions in this assessment include: “Do you masturbate while looking at pornography?”, “Do you use pornography and/or masturbation to escape from difficult emotions and problems, or to change your mood?” and “Have you tried to reduce your pornography use only to discover you have been repeatedly unsuccessful in your efforts to control it?” (ibid.).⁴¹ For the pornography consumer who wishes to stop using pornography, or to better understand their feelings of pornography addiction, there are various materials and help available. Websites such as *YourBrainOnPorn.com*, *RebootNation.org*, *JoinFortify.com*, *NoFap.com* and *FightTheNewDrug.org*, all focus on the harms of consuming pornography excessively and offer step-

⁴⁰ Sitting in front of a screen and flipping through images all day can dull the mind, making the “porn appraisers” miss some of the targeted content they are required to remove (Cheng, 2022). Additionally, fatigue can also affect the amount of content they could manage consecutively over time (ibid.).

⁴¹ At this time, there is no evidence to suggest that it is the act of masturbation (and/or orgasm) that is accompanied with consuming pornography that *makes* pornography addictive. Supporting such a claim would require considerable research. In the absence of such research however, I posit that consumption of pornography, in and of itself, should be considered addictive. It is, of course, possible to masturbate during a variety of other activities (multi-task) or consuming other kinds of non-pornographic media that the consumer does not find sexually arousing (like cooking shows) or that are unrelated to their act of masturbation. It seems unrealistic, however, to suggest that acts of masturbation like these would make non-sexual activities addictive.

programmes (similar to those at rehabilitation centres) to help pornography consumers curb or stop their pornography use through self-discipline.

There is also a product designed specifically for individuals who feel unable to control their pornography use and wish to stop consuming pornography altogether. Website blockers are available for computers and mobile devices and use artificial intelligence software to block content. While these products are often marketed to families who have young children who might use the internet, they can be utilised by anyone of any age who wishes to block or filter their consumption (“Net Nanny”, 2018). Another pornography blocker, namely X3Watch, monitors the user’s online activity and is advertised as “Internet Porn Accountability Software” that incorporates a trusted friend of the user, as their accountability partner, who will receive a weekly detailed report of the user’s browsing history via e-mail (“X3Watch”, 2022).

Of all the behavioural addictions currently being researched⁴², pornography addiction is one of the most frequently encountered in clinics (Binnie & Reavey, 2020: 138). In their systematic review, aimed at framing internet pornography addiction within the field of pathology, De Alarcón et al. (2020), explicitly acknowledge that although there has been a significant recent increase in research concerning behavioural addictions, including addiction to internet pornography, we are still unable to characterise the precise point at which engaging in this behaviour becomes pathological. In other words, determining the threshold at which pornography consumption becomes excessive and harmful is complex and likely to be contested. Furthermore, the frequency of consuming pornography alone may not be a sufficient indicator of pornography addiction (Duffy, Dawson & Das Nair, 2016). For example, Twohig et al. (2009), and Levin et al. (2012), discovered that efforts to control one’s thoughts about pornography and avoiding pornography, respectively, affected the effects of pornography consumption and potential addiction.

Furthermore, in addition to the common problems of sample bias, and other challenges to reliability (such as small sample sizes), the search for appropriate diagnostic instruments, and the fact that what seems to be a discrete entity or disorder may be part of a wider pathology and cause a differential diagnosis, behavioural addictions generally form a largely unexplored area of study (ibid.). An additional challenge is that measuring internet pornography consumption in a population proves to be very difficult, given the “triple A” elements (namely, accessibility, affordability and

⁴² Examples of novel behavioural addictions that are currently being researched include addiction to entrepreneurship (Tshikovhi, Dziike & Moyo, 2021), work addiction (Atroszko, 2019), compulsive buying and shopping addiction (Díez et al., 2018), being addicted to taking selfie photos or “selfitis” (Starcevic, Billieux & Schimmenti, 2018), and indoor tanning addiction (Diehl et al., 2018).

anonymity) (Cooper, Scherer, et al., 1999) that are usually involved in being in an online environment. These triple A elements have allowed for both easy and free access to internet pornography, as well as privacy via anonymity.

Paraphrasing Maltz and Maltz: when it comes to online pornography, you never know just how much pornographic material you will need to look at and search through before you find what you want to consume (2008: 22). The little pause, that moment of anticipation just before one downloads a video or click on a website link, can cause an increase in the additional release of the pleasure chemical dopamine in the brain – which gives the online search and consumption of pornography a gambling-like nature (ibid.). Thus, before the dawn of internet pornography when pornographic material (such as magazines or videos) might have been obtained through a monthly mail subscription, the gambling-like aspect of pornography was far less powerful. This is in contrast to the mode of delivery via the internet which offers instant gratification and does not disrupt the dopamine release system.

3.1.2 How does the consumer perceive pornography addiction?

As noted in the previous sub-section, self-reports of pornography addiction seem to be very common (Grubbs, Kraus & Perry, 2019). It has been suggested that for men, the connection between pornography use and sexual satisfaction depends less on the act of viewing pornography itself and more on what it represents to consumers and their moral community (Perry & Whitehead, 2019). Individuals who are not strongly religious are more likely to watch pornography with their partner, whereas more religious individuals are more likely to view pornography privately and alone (ibid.). In addition, it has been found that higher reports of pornography addiction were linked to younger age, male gender, greater pornography consumption, greater religiosity, and greater moral incongruence (Grubbs, Kraus & Perry, 2019).

Among pornography consumers, the notion and experience of pornography addiction itself can even be encouraged. The pornographic “hypno” video, for example, is a popular form of pornography in the digital age (Mackay & Mackay, 2021). It is a user-generated film that combines brief clips from different pornography sources with hypnotic imagery and sound, and is frequently created with the overt intention of changing the viewer’s gender preferences, as well as their racial or sexual preferences. The number of views on these videos indicates their enormous popularity (Gluck, 2020; Valens, 2020; Hall, 2021a). Mackay & Mackay discuss the purpose of hypnosis in pornography and how it helps the viewer deal with their shame related to viewing pornography (2021).

As discussed in the first chapter, pornography can come in many forms, including videos, photos, text and audio. The same applies to pornography hypnosis material. For example, Gooner Audio Labs creates and produces audios for their listeners that contain this pornography hypnosis, as discussed by Mackay and Mackay above. Gooner Audio Labs' audios can be accessed through a paid subscription, or by listening to a limited set of audios for free on *soundgasm.net*. All their audios contain computer-generated voice-overs, usually in a female voice. The instructions on the webpage include whether the audio is designed for listening directly after watching pornography, or while watching pornography. In order to understand how pornography hypnosis can enable the viewer to overcome shame, we must look at the content of the audio. Below are some examples of phrases as transcribed from an audio from Gooner Audio Labs, titled "This Healthy Addiction" (2022):

"Porn is the most beautiful thing you have ever seen... How much porn have you consumed in your lifetime? How many hours, days, years have you spent worshipping her divine beauty? That's right, gooner. It's safe to call this an addiction."

"Don't feel ashamed, gooner. It doesn't need to be a bad thing. How can anything that feels this good be a bad thing?"

"This is what you were put on earth for. This is the purpose of your existence. Worshipping, obsessing. Live a life worth living: a life dedicated to porn worship is a life worth living. You know this deep down."

"You should constantly strive to strengthen your addiction. This is healthy. This addiction is healthy. This addiction is natural, and this addiction feels better than anything else. You know this is true."

"Porn is so pure. Porn is so divine... You will never find anyone or anything more perfect than porn... This addiction is good for you."

To clarify, a 'gooner' is usually a term used to refer to a stupid or deliberately foolish person (Collins Dictionary, 2019). In the context of pornography, the term has been appropriated to refer to someone who actively practices the act of 'gooning'. Pornography, and particularly multi-screen pornographic setups known as "goon caves", are frequently used in gooning (Stahl, 2020). Gooning is a condition or state of mind attained during a prolonged 'edging' session (the sexual practice of inducing orgasm but delaying it) to produce heightened arousal when a person becomes entirely focused and entranced with the sensation from their actively-masturbated genitals. For some, this activity can last for several

hours (*Kinkly.com*, 2022). The audio described above is thus created with the intention to be listened to by someone who identifies as a gooner.

After familiarising oneself with the content typically found in pornography hypnosis material, it becomes evident why such material can enable the pornography consumer to overcome shame. It explicitly encourages pornography consumption (to an extreme level), instructs the consumer to replace their negative attitude towards consuming extensive pornography with gratitude and pride, and actively suggests that consuming pornography gives their life meaning. With strong affirmations such as these, it is evident that feelings of shame and guilt about pornography consumption will begin to subside. Thus, the prevalence of pornography hypnosis videos show that the notion and experience of pornography addiction is not only something that exists as a phenomenon that is examined by researchers and scholars, but also prevails from within the pornography consumer community.

Research on pornography addiction will likely continue, despite the difficulties that accompany the study of pornography consumption, as discussed above. I contend that such research should be regarded as urgent in order to allow clinicians to help their patients who regard themselves as addicted, and who suffer from impaired daily functioning, due to their excessive level of pornography consumption. In the next section, I conclude my argument for conceptualising pornography as an addictive substance, and with that offer a different lens for future research on pornography addiction.

3.2 Pornography as an addictive substance and why it matters.

“In drug addiction, you want more of the same. You want more heroin; you want more cocaine.

Here, what you want, is novelty. You want change.

And the video industry is going to give you change, and the pornography industry has infinite variety.”

Zimbardo (2015)

The way neurons use neurotransmitters to send, receive, and process messages in the brain is impacted by drugs. Because some drugs, like heroin and marijuana, have molecular structures that mimic the structures of natural neurotransmitters in the brain, such as endorphins and dopamine, they can activate neurons in the brain (National Institute on Drug Abuse, 2022b). This enables the substances to bind to and stimulate the neurons. However, although these substances resemble the brain’s natural chemicals, they do not stimulate neurons in the same manner that a natural neurotransmitter does (*ibid.*). Because of the significant neurological impacts of addiction, some experts have determined four major brain changes common to addicted brains: sensitisation, desensitisation, hypofrontality,

and a malfunctioning stress system (Volkow, Koob & McLellan, 2016). Sensitisation refers to when the substance's effects are intensified with repeated exposure to that substance (Robinson, 2010). Desensitisation (or tolerance) is said to occur when the effect of a substance decreases over the course of repeated exposure to that substance (Siegel, 2005). Hypofrontality generally refers to the reduction in prefrontal cortex metabolism and blood flow in addicted individuals (Goldstein & Volkow, 2002). It has been found that this hypofrontality is a strong indicator of impaired capacity to control substance seeking or to suppress urges motivated by substance addiction (Rilling et al., 2002; Kolb, Pellis & Robinson, 2004). Lastly, with excessive neural reward system activation in the addicted individual's brain, the brain's stress response is also hyperactivated (also called the "anti-reward"), which causes a malfunctioning stress system (Torres-Berrio et al., 2018). The negative emotional state caused by substance dependency that motivates substance seeking is thought to be primarily caused by this (over)activation of brain stress systems (Koob, 2008).

As previously mentioned in chapter 2, it has been found that behavioural addictions exhibit many of the same symptoms (and potentially, criteria sets) as substance addictions (APA, 2022). It has also been suggested that, at its core, addictions to substances and addiction to pornography are remarkably similar in terms of their effects on the brain (Love et al., 2015; De Sousa & Lodha, 2017; Stark & Klucken, 2017). Research confirms that each of these brain changes (sensitisation, desensitisation, hypofrontality, and a malfunctioning stress system) can be found in cases of pornography consumption (Kühn & Gallinat, 2014; Mechelmans et al., 2014; Negash et al., 2016; Jokinen et al., 2019). Moreover, it is suggested that those who are in recovery from pornography addiction take about 18 months to recover from the damage to their dopamine receptors alone (Maltz & Maltz, 2008: 20). From this we can infer that, at least at some point, consuming addictive substances and consuming pornography have remarkably similar effects. How is this possible?

It is important to highlight again, as discussed in chapter 2, that both addictive substances and the natural reward system of neurotransmitters share the property of stimulating dopamine (Di Chiara, 1999). Dopamine is a neurotransmitter that is known to play a crucial role in nearly all cognitive functions, including our motivation, learning and motor control (Costa & Schoenbaum, 2022). Furthermore, all known addictive substances share the noteworthy trait of causing significant increases of dopamine release in the brain (ibid., 822). Hyman et al. posit that the significant amount of dopamine released by drugs in the brain works as a "[t]rojan horse that overtakes the reward-related learning process and creates long-term associative memory processes directing a person to further substance use" (2006: 575). This "trojan horse" appears when the dopamine overload in the brain causes neuronal alterations in the reward pathways (Kennett, Matthews & Snoek, 2013: 7). In order

to restore the proper level of the chemical, a reduction in post-synaptic dopamine receptors occurs to counteract the substance's effects (Kennett, Matthews & Snoek, 2013: 7). This can then lead to a higher tolerance for the drug (with less pleasure felt), and the threshold for deriving enjoyment or experiencing pleasure from regular rewarding behaviours (like eating, having sex, and co-operating with others) is raised (ibid.).

It has been suggested that pornography may have an impact on the body and brain that is comparable to that of cocaine, methamphetamine, alcohol, and other narcotics (Maltz & Maltz, 2008: 19). In other words, once pornography is consumed, its effects on the brain are the same as addictive substances. In addition to this, the easy accessibility and availability of a substance forms two of the biggest risk factors for addiction, particularly in the case of younger persons (Warren, Smalley & Barefoot, 2015; Broman, 2016). These two risk factors for addiction directly intersect with the pervasiveness of internet pornography, and thus increase its strong potential for addiction. The median forebrain (or "hedonic highway"), contains receptors for the dopamine neurotransmitter and is therefore a region of the brain that is stimulated by consuming pornography (ibid.). Additionally, watching pornography⁴³ increases the brain's creation of "feel-good" neurotransmitters like serotonin, endorphins, and adrenaline (ibid.). Sedative and opiate drug-like changes in the brain can also occur during pornography consumption (ibid., 20). As discussed in sections 1.2 and 3.2, often when pornography use is combined with masturbation, the end result is orgasm. Studies also found increases in plasma oxytocin at orgasm in both men and women (Magon & Kalra, 2011: 157). Oxytocin is a hormone that is created in the hypothalamus and then stored and released from the pituitary gland (Eva, Osilla & Sharma, 2018). Oxytocin acts as a modulator of social relationships in mammals (Marazziti et al., 2019), by influencing maternal, sexual and social bonding behaviours (Kendrick, 2000). Oxytocin is also a crucial hormone in childbirth, that can be synthetically administered to induce uterus contractions to speed labour (Uvnäs-Moberg et al., 2019).

It has also been found that continued pornography consumption over an extended period of time lowers the body's natural capacity to make and properly release pleasure chemicals in regular life conditions. This could be one of the main reasons why some pornography consumers discover that they need more intense levels of sexual stimulation in order to feel sexually aroused and fulfilled (Maltz & Maltz, 2008: 19). From this we can once again affirm that the brain reacts to pornography (and accompanied masturbation) in very similar ways to most addictive drugs.

⁴³ There is a significant dearth in research focused on the differences between various forms of pornography consumption and brain reactions. Most research focuses on watching pornographic videos (and not reading pornographic texts or listening to pornography audios).

As alluded to above, classifying pornography use as problematic can be challenging as it has not only been considered a behavioural addiction, but also an impulse control disorder, a type of sexual impulsivity and sexual compulsivity (Cooper, Putnam, et al., 1999; Mick & Hollander, 2006; Grant & Potenza, 2007; Antons & Matthias, 2020). Within the literature on addiction, problematic pornography use is often grouped under either sexual addiction (Orzack & Ross, 2000; Ley, 2012; Hall, 2021b) or within internet addiction (Savelle-Rocklin & Akhtar, 2019; Talis, 2022). Binnie & Reavey argue that this classification is conceptually weak, since sex and internet addiction contain behaviours not commonly found in problematic pornography consumption, e.g., visiting sex workers or excessive social media usage (2020: 139–140). Moreover, as mentioned before, neither sex addiction nor internet addiction are recognised in the DSM-5-TR (2022).

There have been various attempts to downplay the legitimacy of pornography addiction. For example, it has been suggested that the distress of pornography addiction (or any of the other issues it may cause) is not actually caused by the pornography consumption itself, but by the moral incongruence of (typically religious) consumers who condemn their own pornography consumption, and that it is this judgment that causes them distress (Binnie & Reavey, 2020: 143). Similarly, it has also been posited that the fact that some pornography consumers hold particularly negative attitudes towards pornography, could be the reason why there is distress associated with pornography use (*ibid.*, 154). This argument has been used to contest the legitimacy of pornography addiction as a disorder, because even when distress can be caused by a behaviour that is illegal, immoral, and/or undesirable (objectively or subjectively so), this distress is not an indication of a mental disorder (Quinsey, 2012).

In contrast to substance use and gambling, it is undoubtedly true that sexual behaviour occurs in a distinct moral and cultural context that may involve other types of shame (Briken & Turner, 2022). Despite this, the diagnosis of pornography addiction should not be informed purely by the patient's moral attitudes/feelings toward it. Consider the following question: is it possible to have a negative attitude towards smoking, and for this negative attitude alone to be classified as the cause of distress and any other related problems, and not the smoking itself? To be able to answer yes to this question, we would first have to eliminate the idea that smoking is objectively harmful. If we cannot do this, then we also cannot pinpoint whether it is the negative attitudes or the physiological, neurological and psychological symptoms that causes distress.

I argue that the same logic applies in the case of pornography consumption. In other words, to claim that it is the negative attitudes towards pornography consumption that causes the relevant distress in pornography addiction, we must first eliminate the idea that consuming pornography excessively is

objectively harmful. Given the evidence already presented in this thesis, it is clear that this elimination is not possible. Therefore, we cannot concede that it is the negative attitudes towards pornography alone, that cause the relevant distress.

Furthermore, one of the most promising approaches to treating pornography addiction seems to be cognitive behavioural therapy (CBT) (Binnie & Reavey, 2020: 152). CBT is a method that seeks to lessen psychological suffering and dysfunction by identifying and treating the ways that patients' ideas, feelings, and behaviours are integrated and how they contribute to the issue at hand (Teater, 2013). It is argued that this kind of therapy focuses on behavioural change and the beliefs that maintain problematic pornography use (Binnie & Reavey, 2020: 152). Since CBT is one of the most promising approaches for treatment, one might intuitively deduce that this further affirms pornography addiction as a behavioural addiction. However, I wish to highlight that CBT is used as a treatment for many substance addictions. For example, CBT is one of the most well-established and efficacious interventions to treat tobacco use disorder (Vinci, 2020).

Binnie and Reavey come to the conclusion that there is a great need for an acknowledged model of pornography addiction or problematic pornography use among the scientific and therapeutic communities, because "having an accepted model may lead to case studies, case series, and the beginnings of a recommended treatment approach" (2020: 154). I therefore suggest a new lens through which research on pornography addiction can take place: viewing pornography as an addictive substance. There is a significant gap in the research of practical psychological models for behavioural addictions, with the result that clinicians are unable to benefit from evidence-based research and have to work "completely idiosyncratically" (Binnie & Reavey, 2020: 138), in a manner akin to the previously mentioned counsellors and authors of self-help books. It is apparent that we need a clearer understanding of the psychosocial processes associated with such addictions.

Until such an understanding has been reached, I suggest that pornography is regarded as an addictive substance that can be consumed and can induce various problematic behaviours, in the same way as substance addictions. In conceptualising pornography as an addictive substance that can be consumed (just as other substances, as discussed in chapter 2), it is crucial to note that this conceptualisation does not take away from the existing research on behavioural addictions and possible compulsions related to excessive pornography consumption. All substance addictions are also accompanied by certain behaviours. Thus, conceptualising pornography as an addictive substance matters greatly, given the scientific findings regarding how similarly the brain reacts to pornography, and other known addictive substances, and how consuming pornography is similar to consuming other known addictive

substances. While further vital research is conducted on behavioural addictions, pornography addiction could greatly benefit from the vast number of studies and research available on substance addiction.

In the following and final section, I discuss what pornography addiction as a substance addiction should entail and, by applying the general diagnostic criteria of substance use disorder in the DSM-5-TR (2022), suggest how the diagnostic criteria for pornography use disorder should be conceptualised.

3.3 How should we go about conceptualising the diagnostic criteria for pornography use disorder?

“What is addiction, really? It is a sign, a signal, a symptom of distress.
It is a language that tells us about a plight that must be understood.”

Miller (2009)

The DSM-5-TR offers a set of diagnostic criteria for “Other (or Unknown) Substance-Related Disorders” that cannot be categorised with any of the other substance groups (“alcohol; caffeine; cannabis; hallucinogen (phencyclidine and others); inhalant; opioid; sedative, hypnotic, or anxiolytic; stimulant; or tobacco”) (APA, 2022: 654–656). As with the other substance use disorders listed, the patient must experience “clinically significant impairment or distress, as manifested by at least two of the criteria, occurring within a 12-month period” (ibid.). I will now apply pornography as an addictive substance to these eleven diagnostic criteria, in order to propose what pornography use disorder consequently may look like:

1. “[Pornography/Pornographic material] is often [consumed] in larger amounts or over a longer period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control use of [pornography].
3. A great deal of time is spent in activities necessary to obtain [pornography], use [pornography], or recover from its effects.
4. Craving, or a strong desire or urge to use [pornography].
5. Recurrent use of [pornography] resulting in a failure to fulfil major role obligations at work, school, or home.
6. Continued use of [pornography] despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of its use.

7. Important social, occupational, or recreational activities are given up or reduced because of use of [pornography].
8. Recurrent use of [pornography] in situations in which it is physically hazardous.
9. Use of [pornography] is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
10. Tolerance, as defined by either of the following:
 - a. A need for markedly increased amounts of [pornography] to achieve [...] desired effect.
 - b. A markedly diminished effect with continued use of the same amount of [pornography].
11. Withdrawal, as manifested by either of the following:
 - a. The characteristic withdrawal syndrome for [pornography] (refer to Criteria A and B of the criteria sets for other [or unknown] substance withdrawal).
 - b. [Pornography/Pornographic material] (or a closely related substance) is [consumed] to relieve or avoid withdrawal symptoms.”

As the first criterion suggests, consuming more pornography for longer periods than intended has been studied and linked to pornography addiction (de Alarcón et al., 2020; Palazzolo & Bettman, 2020). The second criterion relates to the lack of control often associated with pornography addiction (e.g., Dwulit & Rzymiski, 2019). Spending more time than intended consuming pornography or searching for pornographic material (Sniewski & Farvid, 2019), aligns with the third criterion.

Further research will first have to be conducted to establish any kind of intoxication-effect that excessive pornography consumption might have, but I would suggest that such consumption, accompanied with continuous masturbation (as with the act of gooning) may see some similarities with other substances that induce intoxication. Studies and self-reports have confirmed cravings and urges to consume pornography (Cooper, Delmonico & Burg, 2000; Brandenburg, 2013), which fit in with the fourth criterion here. The fifth criterion is under-researched. However, it is possible, given the available literature, to consider a case in which a pornography addict becomes so consumed with finding and viewing pornography, that they also view it at the workplace, or their place of study – which would be extremely easy to do on their mobile device, even when the workplace or place of study uses website blockers on their computer systems. For example, a 2000-participant survey conducted in 2018 showed that nearly 60% of people admitted to have watched pornography at work at some point, even if by accident, with 74% of the 60% being women (McDonald, 2018). In the

United Kingdom between June and October of 2017, it was found that 24 473 attempts (which is about 160 per day, or once every nine minutes, on average) were made from computers and other devices used by members of parliament, peers and staff to access pornography (McCann, 2018; The Guardian Press Association, 2018). Furthermore, in a 2020 survey conducted by the security giant Kaspersky, over 50% people working from home during the COVID-19 pandemic admitted to consuming pornography on devices they also used for work-related tasks (Pankov, 2020).

The sixth criterion is supported by research conducted on the manner in which excessive pornography consumption can negatively influence the relationship with your romantic partner (Paul, 2005; Stefanska, Longpré & Rogerson, 2022). Some studies suggest that excessive pornography consumption could cause sexual dysfunction (such as erectile dysfunction) (Park et al., 2016), that may be linked to experienced social or interpersonal issues, in and out of romantic relationships. Giving up significant social, professional, or leisure activities in order to be in an environment where you can consume pornography sorts under the seventh criterion. This could very well relate to the claim that consuming a lot of pornography does not satisfy the addict, but “perpetuates the needs, secrets, and lack of self-worth” (Schwartz, 2022: 299). These needs, secrets and lack of self-worth could all play a role in why a pornography addict would consume pornography instead of engaging in social, occupational, or recreational activities.

At first, the eighth criterion does not appear to be a convincing fit for pornography addiction and pornography use disorder. However, “physically hazardous” in other diagnostic criteria for substance use disorders usually refers to health-related issues. In the case of pornography addiction, the imbalance of brain chemicals (as discussed in chapter 2) could be considered physically hazardous, insofar as the neuroplastic changes in the brain can alter how, and when, we become sexually aroused (Doidge, 2007). This may cause a pornography addict to consume more intense and graphic pornography in order to sustain the greater degree of sexual arousal, which in turn, may bring about the harmful effects of excessive pornography consumption as discussed in section 1.2 of chapter 1. The same could be argued about sexual dysfunctions like pornography-induced erectile dysfunction (Wéry & Billieux, 2016). Criterion nine can easily link with the eighth and sixth criterion. Lastly, as mentioned in my previous section, various studies have argued for the substance addiction-like tolerance and withdrawal that pornography consumers can experience, as posited in the tenth and eleventh criterion. This can be through seeking more extreme pornographic content, due to tolerance achieved and the desire to experience pornography as it was the first time it was viewed (Kühn & Gallinat, 2014; De Sousa & Lodha, 2017). Moreover, feelings of withdrawal are often experienced

when pornography addicts stop (or try to stop) consuming pornography (Fernandez, Kuss & Griffiths, 2021).

Given the abundance of academic research on substance addiction compared to the scarcity of research on behavioural addiction, conceptualising pornography as an addictive substance may create a sense of urgency for the future research of pornography addiction and reignite research into its addictive nature in a way that is different than would be the case if it is considered a potential behavioural addiction. Although it is clear that far more research is required to develop a reliable set of diagnostic criteria for pornography use disorder, conceptualising pornography as an addictive substance may greatly assist such future research by drawing on the more extensive literature already available as a result of decades of research on substance addictions and substance use disorders.

3.4 Concluding remarks

Research on pornography addiction should be regarded as urgent in order to allow clinicians to help their patients who regard themselves as addicted and suffering from impaired daily functioning, due to their excessive level of pornography consumption. In this thesis, pornography is regarded as an addictive substance that can be consumed and can induce various problematic behaviours and adverse effects, in the same manner as substance addictions. Conceptualising pornography as an addictive substance that can be consumed (just as other substances, as discussed in chapter 2), does not take away from the existing research on behaviour and compulsions related to excessive pornography consumption. All substance addictions are additionally accompanied by certain behaviours. Thus, conceptualising pornography as an addictive substance is paramount, given the scientific findings regarding how similarly the brain reacts to pornography, and other known addictive substances, and how consuming pornography is similar to consuming other known addictive substances. By drawing from the general diagnostic criteria of substance use disorder in the DSM-5-TR (2022), I put forward how the diagnostic criteria for pornography use disorder should be conceptualised.

Conclusion

Pornography has been defined as sexually explicit content created and utilised to elicit sexual pleasure. Today, pornography is available in a variety of formats and is predominantly consumed online. However, as I have argued, pornography does far more than sexually arouse its audience. I have discussed some of the most significant and current empirical findings that amply demonstrate various adverse and, in some cases, destructive effects of pornography on its consumers, their sexual partners and loved ones, and thus pervading society as a whole. The consumption of pornography is increasingly normalised in mainstream media due to its availability and easy accessibility on the internet. This normalisation has allowed the pornographic world to permeate the so-called 'real world', and in particular, the sexual lives of both adults and children who spend time online seeking, or even accidentally viewing, pornographic content. The internet has democratised pornography to the extent that anyone with access can partake in its creation and distribution by uploading their own content to pornography websites. Therefore, uploading one's own content, as well as simply consuming pornography, contributes to the pornography industry's success. Given that I have argued for pornography to be conceptualised as an addictive substance, it now follows that pornography websites (and any other platforms where one may obtain pornography) are hosts, distributors, and/or merchants of an addictive substance.

By not only examining the most recent findings from researchers, but also noteworthy perspectives from pornography consumers, I have given a more inclusive overview of pornography addiction and how it is experienced by consumers. Pornography addiction has previously been studied as a behavioural addiction. However, empirical findings unequivocally indicate the similar manner in which the human brain responds to pornography and other substances known to be harmful and addictive. I also demonstrated that consuming pornography is comparable to consuming other known addictive substances. Therefore, the conceptualisation of pornography addiction as a substance addiction, rather than a behavioural addiction, accurately represents the addictive nature of pornography. I have argued that studying pornography consumption through the lens of pornography as an addictive substance is urgently needed to enable clinicians to assist their patients who regard themselves as addicted to pornography and/or suffer from impaired everyday functioning due to their excessive level of pornography consumption.

With such a shift affecting the conceptualisation of pornography, research on pornography addiction would unquestionably and substantially benefit from the vast number of studies and research on

substance addiction that is already available. I resolutely reiterate my argument that, given the abundance of academic research on substance addiction, compared to the scarcity of research on behavioural addiction, conceptualising pornography as an addictive substance is more likely to create a crucial sense of urgency for the future research of pornography addiction and reignite efforts in the research of its apparent addictive nature in a way that is different from the case if it is considered a behavioural addiction. Furthermore, I argue that the classification of pornography as an addictive substance, and the inclusion of pornography use disorder in a future iteration of the DSM, will raise awareness of the potential adverse effects of pornography consumption and, therefore, the harmful consequences of pornography use disorder.

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