Nicola Döring

### Introduction

The term "internet sexuality" (or OSA, online sexual activities) refers to sexual-related content and activities observable on the internet (cf. Adams, Oye, & Parker, 2003; Cooper, McLoughlin, & Campbell, 2000; Leiblum & Döring, 2002). It designates a variety of sexual phenomena (e.g., pornography, sex education, sexual contacts) related to a wide spectrum of online services and applications (e.g., websites, online chat rooms, peer-to-peer networks). If an even broader range of computer networks – such as the Usenet or bulletin board systems – is included in this extensional definition, one speaks of "online sexuality" or "cybersexuality."

This article presents an overview of the current state of research in internet sexuality. Over 450 relevant academic papers (primarily peer-reviewed journal articles) published between 1993 and 2007 were identified in the databases *PsycInfo* (maintained by the American Psychological Association) and *Web of Science* (maintained by Thomson Scientific). Spanning a period of 15 years, these publications deal with pornography, sex shops, sex work, sex education, sex contacts, and sexual subcultures on the internet (cf. Döring, 2009).

# Pornography on the Internet

Explicit, potentially stimulating portrayals of sexual activity exist on the internet in the form of photos and photo series, video clips and films, comics, and texts. Online pornography is provided at websites both free of charge and for a fee. Websites with adult content can be found with the help of pornography search engines (such as www.sextracker.com) and directories (such as www.thehun.com). Pornographic

N. Döring (⊠)

Ilmenau University of Technology/Technische Universitaet Ilmenau Media Design and Media Psychology/Medienkonzeption und Medienpsychologie Ehrenbergstr. 29 (EAZ 2217), D-98693 Ilmenau, Germany

e-mail: nicola.doering@tu-ilmenau.de

material is also exchanged in peer-to-peer networks, online forums, and chat channels. Alongside erotica/softcore (i.e., portrayals of naked individuals, simulated sex) and hardcore pornography (portrayals of real sexual acts), illegal pornography constitutes a third form of sexually explicit content available online (albeit to a lesser extent). Online child pornography is extremely difficult to find for unsophisticated users, as it is illegal in most countries (cf. Schell, Martin, Hung, & Rueda, 2007). For this reason, child pornography is almost always sold or exchanged in closed circles (publicly accessible depictions of "teen sex" normally involve participants over the age of 18 years; Kuhnen, 2007; Lewandowski, 2003, p. 311). Violent pornography is primarily offered on specialized websites for a fee. Animal pornography, on the other hand, is relatively easy to find free of charge because it is legal in several countries (Lewandowski, 2003, pp. 311–313).

Unique to the internet is the immense quantity and extremely wide range of often free pornographic material accessible anonymously regardless of time or place. These three characteristics of online pornography (anonymity, affordability, and accessibility) are described as a "triple A-engine" that drives its use (Cooper, 1998). The digital format of internet pornography makes it easy for users to search for specific images, archive them in great volume on their home computers, and digitally modify them. The digital format of online pornography also allows users to conveniently produce and distribute their own images. The quantity of cyber pornography in relation to all other content on the internet is estimated at about 1% (Zook, 2007, p. 106). Although small in relative terms, this figure still represents many millions of files.

# Production and Content of Online Pornography

At present, very few studies have systematically investigated the types and characteristics of online pornography. Lack of critical attention has also been devoted to providing a differentiated account of the processes and parties involved in its production. The majority of pornography available online was professionally produced (Cronin & Davenport, 2001). In this way, most commercial internet pornography is a stereotypic product of the socio-economic working conditions of the so-called adult industry (Heider & Harp, 2002; Mehta, 2001; Lewandowski, 2003).

Some professional porno actors maintain their own websites in order to gain independent control over the conditions of production (Miller-Young, 2007; Podlas, 2000). Many amateurs also release their self-produced pornography on the internet (e.g., stories: www.asstr.org; photographs: www.altporn.net; videos: www.youporn.com). It is not uncommon for amateur pornography to contain authentic sexual encounters ("reality porn"; Hardy, 2008). In many cases amateur pornography is also marked by a deliberate effort to develop thematic and aesthetic alternatives to mainstream pornography's stereotypes ("alternative porn"). Innovative pornographic depictions (such as pornography made for and by heterosexual and homosexual women) are thus increasingly common on the internet (Attwood, 2007; Schauer, 2005). The emancipatory potential of the internet is contrasted by the greater ease with which illegal online pornography – such as depictions of sexual violence – can be distributed (Gossett & Byrne, 2002).

## Usage and Users of Online Pornography

Today, the use of pornography in the Western world is common: A representative study in Norway revealed that the majority of the male and female population between 18 and 49 years of age has used pornographic magazines (men: 96%, women: 73%), video films (m: 96%, w: 76%), or internet content (m: 63%, w: 14%) at least once previously (Træen, Nilsen, & Stigum, 2006, p. 248). In a convenience sample of students in Canada (average age: 20 years), 72% of male and 24% of female participants reported having used online pornography within the last 12 months (Boies, 2002), p. 82). As is the case with offline pornography, online pornography is primarily consumed by individuals in moments of solitude. However, both forms of pornography are also used to a certain extent by couples and groups of friends. The main reasons provided for the voluntary use of pornography are curiosity, sexual stimulation, masturbation, and enhancement of sex life with partners.

Wanted access to online pornography needs to be differentiated from unwanted exposure: A representative sample of adolescent internet users between the ages of 10 and 17 years in the United States revealed that 25% had unintentionally come across online pornography in the last 12 months. One quarter (6%) were very discomforted by the experience (Mitchell, Finkelhor, & Wolak, 2003, p. 9). Few studies have investigated how children and adolescents handle both voluntary and involuntary exposure to pornographic material on a cognitive and emotional level, however. There are various legal provisions, technical solutions (such as filtering software), and educational programs aimed at protecting children and adolescents from online pornography (Dombrowski, Gischlar, & Durst, 2007).

# Effects of Online Pornography

In academic studies the discussed effects of online pornography are overwhelmingly negative. It is argued, for example, that certain pathological inclinations can be exacerbated by access to deviant pornographic material: The availability of online child pornography is seen as encouraging the perception that pedosexual behavior is normal, as pedosexuals sometimes use such material to justify their own behavior or sway children to participate in illicit sexual acts (Quayle & Taylor, 2002, cf. section "Sexual Subcultures on the Internet"). The ubiquitous nature of online pornography can also lead to "cyberporn addiction," i.e., compulsive or addictive behavior associated with the use of online pornography (Daneback, Ross, & Månsson, 2006). An intensive preoccupation with online pornography can negatively impact the quality of heterosexual relationships, both sexually and emotionally (Manning, 2006). The use of online pornography in the workplace can impair performance and potentially result in employee dismissal (Cooper, Golden, & Kent-Ferraro, 2002). In addition, the use of online pornography is suspected to encourage negative attitudes toward marriage, family, and monogamy and to foster promiscuous and risky sexual behavior (Lo & Wei, 2005; Lam & Chan, 2007). In any event, studies have been unable to establish the

existence of causal relationships to support this final claim. While liberal attitudes toward sexuality may encourage an increased consumption of pornographic material, the body of evidence marshaled to argue that negative consequences result from pornography's use is far from authoritative (Barak, Fisher, Belfry, & Lashambe, 1999). Moreover, claims of negative effects are often based on simple stimulus–response or imitation models. Whether or not and in what manner pornographic images are imitated by its users depends on numerous factors though, particularly on the recipient's evaluation of such practices and interpersonal communication and consent (cf. Fisher & Barak, 2001). An empirical study of such processes has yet to be undertaken.

The potential positive effects of online pornography – such as increased pleasure, self-acceptance, and improved communication between sexual partners, in addition to the widening of traditional sexual roles and scripts – have been the subject of very little academic work to date (cf. Boies, 2002, p. 85; Jacobs, Janssen, & Pasquinelli, 2007; Innala, 2007). When the issue of pornography's effects is broached, the discussion is rarely couched in relative terms with a view to online usage of moderate intensity or other factors which co-determine an individual's sexuality.

## **Sex Shops on the Internet**

There are numerous sex shops on the internet. Sexual products – including toys, sexual aids, lingerie, condoms, aphrodisiacs, and erotica – are sold online by both mass-market retailers (such as www.amazon.com) and specialized sex shops (such as www.adultshop.com). The visibility and easy accessibility of sexual products on the internet might contribute to the increasing normalcy with which the use of such products is viewed, as large segments of the population can now familiarize themselves with and purchase such products discretely (e.g., older adults, Adams et al., 2003). Online sex shops geared toward women (such as www.annsummers.com; www.goodvibrations.com; www.marg.at) present dildos and vibrators as fashionable lifestyle products while communicating new images of female sexuality (Attwood, 2005).

In accordance with the Sexual Behavior Sequence Model, online sex shops can be classified as a sexual stimulus that triggers various physiological, affective, and cognitive reactions in the user depending on his or her predispositions. These reactions can prime the user for sexual activity and also impact the nature of the activities engaged in (Fisher & Barak, 2000, p. 579). There are currently no empirical studies available concerned with investigating the contents and forms of online sex shops (e.g., in contrast to offline sex shops), their clientele, the ways in which they are used, and their effects.

#### Sex Work on the Internet

While pornography on the internet has been the subject of a large number of studies, very little research has focused on the topic of sex work.

# Offline Sex Work

The internet now plays a central role in the marketing of sex tourism, prostitution, and other forms of offline sex work (e.g., strip clubs). Many feminists reject prostitution on the principle that it is a form of sexual exploitation. They argue that the internet encourages sex tourism and prostitution while lending it a patina of normalcy (Hughes, 2000, 2003; Jones, 2001); that online forums concerning prostitutes and the quality of their services impart a cynical view of women (e.g., www.utopiaguide.com; www.theeroticreview.com; Holt & Blevins, 2007); and that online communication with customers constitutes a new form of stress for prostitutes (Davies & Evans, 2007). It is posited that the internet is used in connection with forced prostitution and the sexual trafficking of children and women (Surtees, 2008, p. 56f).

Other feminists who recognize prostitution as a legitimate occupation – on the condition that equitable working conditions are present – have to some extent evaluated the internet in a positive light. The internet offers female and male prostitutes additional opportunities to market their services, work independently, network, or verify the identity of potential clients (Ray, 2007; Uy, Parsons, Bimbi, Koken, & Halkitis, 2004).

#### Online Sex Work

A new market for sex work has developed online with the advent of live sex shows broadcasted via webcam. A number of professional female sex workers have reported that their activity in online sex shows (which involves responding to customer wishes in front of the camera) is much more comfortable and safe than the prostitution they previously practiced on the street or in brothels (Podlas, 2000; Bernstein, 2007). On the other hand, a potential risk is faced by individuals who chose to enter into the seemingly unproblematic online sex business with excessive haste, overestimating the financial rewards while underestimating the negative psychological and social effects (Ray, 2007). The providers and consumers of online sex services have not been systematically identified, nor have the individual consequences for participants in the online sex business. The effects exercised by the easy accessibility of online sex shows on the social perceptions of women, men, and sexuality also have yet to be explored.

#### Sex Education on the Internet

Institutions, companies, groups, and individuals use the internet to obtain and provide information about sexuality, as well as to promote changes in attitudes and behavior (e.g., to increase awareness about safe-sex practices).

## Access to Online Sex Information

The majority of internet users occasionally search for sex information online (Gray & Klein, 2006). In a convenience sample of 760 Canadian students, 45% of females and 68% of males indicated they had searched for sex information on the internet within the past 12 months (Boies, 2002). The wide variety of content and the confidentiality with which it can be obtained are the main reasons indicated for engaging in such online searches. When assigned the task of finding online information about condom use and sexually transmitted diseases, test participants between the ages of 18 and 21 years in the United States were able to locate an appropriate website within 4 minutes – or five to six clicks – on average (Smith, Gertz, Alvarez, & Lurie, 2000). If an internet-capable computer equipped with filtering software designed to block pornographic content is used (cf. section "Pornography on the Internet"), the most restrictive settings block out 91% of pornographic content, although 24% of sexual information available online is also no longer accessible (Richardson, Resnick, Hansen, Derry, & Rideout, 2002).

## Quality of Online Sex Information

Which websites communicate scientific and well-founded medical or psychological sex information? How many websites disseminate questionable or even dangerous advice (e.g., sexual abstinence is an effective method of contraception during adolescence and homosexuality can and should be cured)? Numerous questions such as these have still to be answered. A few studies have dealt with the quality of selected information being offered online for sex education (e.g., in terms of scope, completeness, topicality, factual correctness, web design). Varying informational deficits were discovered in English language websites that presented information on contraception (Weiss & Moore, 2003) and sexually transmitted diseases (Keller, LaBelle, Karimi, & Gupta, 2004), as well as on Chinese websites presenting information on HIV (Li, Lu, Yong, & Zhang, 2006). There have been no systematic comparisons to error rates in other sources of information, though (e.g., print brochures, oral communications of medical personnel). To date, it remains an open question as to which measures best assure quality among suppliers of online sex information (e.g., quality seals) or how one might give online users greater competence as consumers of information in order to help them to evaluate the quality of online content more critically themselves. A collection of links with commentary ("webliographies") - selected by independent experts - could help to orient individuals searching for online sex information (e.g., Millner & Kiser, 2002).

# Types of Online Sex Education

In order to ensure sexual well-being and to overcome sexual problems, individuals need to be equipped with sex-related information (I), motivation (M), and behavioral skills (B) (the so-called IMB model of sex education: Barak & Fisher, 2001). For this

reason, online sex education covers a broad range of services, including, for example, multimedia training modules for sexual communication skills, regular visits of social workers and sex experts in online sex chats, e-card services designed to warn former sex partners of a possible STD infection (e.g., www.inspot.org), or laboratory results viewable online (Rietmeijer & Shamos, 2007). Control group studies confirm that online interventions lead to an increase in knowledge and changed attitudes (e.g., Lou, Zhao, Gao, & Shah, 2006); to date, changes in behavior have been researched with comparatively less frequency (e.g., Roberto, Zimmerman, Carlyle, & Abner, 2007).

Protected by the anonymity that an online forum provides, it is possible to discuss sexual experiences and to receive information and peer advice from a wide range of different people (Suzuki & Calzo, 2004). This form of online support also includes online self-help groups for sexual topics — with their attendant opportunities (e.g., round-the-clock help, no matter where one is located) and risks (e.g., excessive emotional demands; social conflicts; cf. Waldron, Lavitt, & Kelley, 2000). In scattered instances, the internet is also being used to support sex therapy via e-mail (e.g., www.therelationshipspecialists.com: Hall, 2004).

### Sex Contacts on the Internet

There are two forms of sexual contact on the internet: contacts initiated exclusively for computer-mediated exchanges (online sex) and contacts leading to real-world sexual liaisons (offline sex).

### Online Sex

When engaging in online sex, partners seek to stimulate one another sexually by exchanging explicit digital texts, images, and/or video – often while masturbating (Daneback, Cooper, & Månsson, 2005; Waskul, 2002). Cybersex partners can be found in various online chat rooms, online communities, online games, or virtual worlds (e.g., Second Life). Fleeting contacts between anonymous strangers are possible, as are more enduring online relationships. As with solo sex, a number of sexual risks are eliminated when engaging in cybersex, including physical violence, unplanned pregnancy, and the transmission of STDs. In contrast to solo sex, however, cybersex offers many of the gratifications associated with partner sex, including sexual and emotional intimacy. Due to its mediated nature and the opportunities it offers for anonymity, cybersex helps to lower inhibitions and also encourages particularly open communication. Sexual inclinations and preferences otherwise concealed in the real world due to the fear of rejection can be acted out on the internet. Participants experience this as liberating, and it often encourages self-acceptance (McKenna, Green, & Smith, 2001).

Online sex provides participants with the opportunity to collect new sexual experiences and engage in sexual activities with a diverse range of partners in a relatively safe and playful setting. Cybersex is not "disembodied" per se. Sexual stimulation

is experienced on a bodily level, and physical attributes and carnal reactions are also symbolically portrayed. Cybersex allows participants to present themselves in a much more favorable light than otherwise possible in face-to-face encounters. By projecting a specific persona in an online setting, individuals who are otherwise unexceptional in real-world settings can experience the lust and desire of others: Senior citizens can become young lovers; adolescents can be taken more seriously by portraying themselves as older. While age and skin color are frequently altered in online settings, virtual gender swapping is much less common: Only 1% of people regularly switch gender when going online (Cooper, Scherer, Boies, & Gordon, 1999).

Cybersex should not be classified as a deficient substitute for "real sex," but should instead be understood as a specific form of sexual expression that can play a legitimate role in the sexual and relational life of its participants (Carvalheira & Gomes, 2003; Döring 2000; Ross et al., 2004). The degree to which cybersex is experienced as satisfying and meaningful depends on the participants involved, as well as their behavior and relationships with each other. Women seem to have a stronger preference for cybersex than men (Cooper et al., 1999). In a sample of Swedish internet users who go online for sexual reasons, women in all age groups – aside from those aged 18–24 years – engaged in cybersex more often than men (25–34 years: w: 35%, m: 30%; 35–49 years: w: 37%, m: 25%; 50–65 years: w: 22%, m: 13%; Daneback et al., 2005). Cybersex is also particularly popular among gay and bisexual men (cf. Ross, Rosser, & Stanton, 2004). In a convenience sample of Canadian students (aged 20 years on average), 13% of males and 7% of females responded that they had visited a sex chat room within the past 12 months (Boies, 2002, p. 82).

Aside from its advantages, cybersex is primarily associated with three forms of risk:

- 1. Extreme usage patterns similar to addictive behavior can result among individuals who suffer from acute psychological afflictions (i.e., cybersex addiction; Schwartz & Southern, 2000). Not infrequently, these behaviors are accompanied by the excessive consumption of other sex-related internet content (online pornography, online sex shops; Daneback et al., 2006).
- 2. If married persons or individuals with a steady partner secretly engage in cybersex with a third party, this not infrequently is registered by the partner as an act of betrayal (so-called online infidelity) and may lead to a crisis or exacerbate existing problems in the relationship (Hertlein & Piercy, 2006; Young, 2006).
- 3. Cybersex is not always initiated based on mutual consent, which can result in unwanted sexual advances (i.e., "online harassment") among adults and adolescents (Barak, 2005), as well as the online sexual molestation of children: Adults may pose as adolescents in chat rooms intended for teenagers and initiate computer-mediated sexual interactions with under-aged persons. In a US-based random sample of 10- to 17-year-olds, 18% of girls and 8% of boys responded that they had experienced online sexual harassment in 2005; 7% of girls and 2% of boys experienced these contacts as very unpleasant (Mitchell, Wolak, & Finkelhor, 2007, p. 121).

# Offline Sex

In two recent surveys conducted in British hospitals, 7 and 5% of heterosexual women, 14 and 10% of heterosexual men, and 47 and 44% of gay men had used the internet to search for offline sex partners within the past 12 months (Malu, Challenor, Theobald, & Barton, 2004; Bolding, Davis, Hart, Sherr, & Elford, 2006). In a Swedish sample of individuals who use the internet for sexual purposes, 35% of men and 40% of women responded that they had had sex at least once with a person met online (Daneback, Månsson, & Ross, 2007). Particularly active were singles, women between 34 and 65 years of age, and homosexual/bisexual men.

Online profiles, photos, and various dating, chat, and social networking sites are used to identify potential sex partners; communication is undertaken by e-mail, chat, webcam, and/or telephone conversations. These means allow relevant criteria such as physical attractiveness, mutual personal interest, matching sexual preferences, and preferred safe-sex practices or HIV status to be clarified in advance. Prior to meeting in the real world, potential partners sometimes engage in online sex (cf. section "Online Sex") and/or telephone sex in order to test their sexual compatibility. Among a large number of potential partners a selection is finally made through this filtering process (Couch & Liamputtong, 2007; Padgett, 2007). The internet expands opportunities for sexual contact among people who live in geographic isolation, as well as among people who seek partners for specific sexual practices, who do not want to be visible on a public stage, or who have little access to typical locations where sexual partners can be met (e.g., people with physical impairments; ethnic minorities).

The online search for offline sexual partners shares the same risks as online sex, as both activities can lead to patterns of addictive behavior. Both of these forms of sexual activity can also be associated with unfaithfulness and relationship problems. Sexual harassment and the sexual abuse of children are further potential risks: Some child molesters, for example, attempt to contact underage children on the internet in order to meet with them in real-world settings (Malesky, 2007). Although some children have been molested by pedosexuals who use the internet to identify and meet their victims, the number of children abused in this manner is exceedingly small in relation to the high number of sexual attacks perpetrated in everyday social settings, despite the intense media attention called to the internet as potential source of abuse (Döring, 2007). All the same, the internet plays a role in sexual crimes against minors by family members and acquaintances (Mitchell, Wolak, & Finkelhor, 2005).

Beyond the aforementioned risks, the online search for offline sex is also presumed to foster the spread of sexually transmitted diseases (particularly HIV). This is because homosexual and heterosexual individuals who seek out sexual partners on the internet tend to be more sexually active, more willing to take risks (i.e., more frequently decline to practice safe sex), and more often affected by STDs (McFarlane, Bull, & Reitmeijer, 2000; McFarlane, Bull, & Reitmeijer, 2002; Liau, Millett, & Marks, 2006). Targeted preventive measures on the internet can help to ameliorate this self-selection effect (Bull, McFarlane, Lloyd, & Rietmeijer, 2004; cf. section

"Types of Online Sex Education"). The possibly increased risk of unplanned pregnancies has not yet been investigated. Likewise, there is lack of empirical evidence as to whether sexual attacks or violations of consent occur with greater frequency when contact between adults is initiated via the internet as opposed to other means. Last but not least, there is also a lack of data on the success or failure rates of online attempts to arrange for offline sex (e.g., problems with no-shows or misleading online self-descriptions).

On the whole, studies exploring the problems and risks associated with the online search for offline sex comprise the bulk of scholarship in this area. Virtually no publications describe this type of behavior as largely ordinary and harmless (Daneback et al., 2007). Even rarer are studies which expressly examine the benefits arising from this behavior as viewed by its participants – e.g., expanded opportunities for sexual enjoyment.

### Sexual Subcultures on the Internet

When a sexual minority is unfairly discriminated against (e.g., lesbians and gays), one rightfully welcomes the emancipation and empowerment that internet usage can bring. By providing an easily accessible platform for the establishment of contacts between individuals of similar creeds and sexual orientations, the internet can ameliorate social isolation, facilitate social networking, strengthen self-acceptance and self-identity, help to communicate practical information, and encourage political activism, among other things (e.g., Hillier & Harrison, 2007; McKenna & Bargh, 1998). To some extent, online sexual subcultures have also been subject to processes of commercialization (as seen with the outgrowth of online sex shops or commercial dating platform addressing specific sexual minorities). The internet is an important place of refuge for individuals who do not have access to urban subcultures by virtue of social restrictions or their place of domicile (such as homosexual youths in rural areas). The spectrum of sexual subcultures on the internet encompasses homosexuality and bisexuality (e.g., Heinz, Gu, Inuzuka, & Zender, 2002; Lev et al., 2005; Nip, 2003), transsexual and transgendered individuals (e.g., Gauthier & Chaudoir, 2004; Shapiro, 2004), cross-dressers (Hegland & Nelson, 2002), as well as sadomasochists, practitioners of fetishism and polyamory, or asexuals (e.g., www.asexuality.org).

By contrast, the use of the internet by some sexual minorities is often perceived as a danger, particularly by those viewed as rightfully ostracized for engaging in behavior harmful to themselves or others (Durkin, Forsyth, & Quinn, 2006). It is feared that the online presence of these deviant minorities could help to justify socially unacceptable forms of sexual behavior, strengthen the development of pathological disorders, or even encourage criminal activities. For example, posts which seek to legitimize the sexual abuse of children are circulated in online forums frequented by pedophiles, as recent research has shown (Malesky & Ennis, 2004). Online forums geared toward other varieties of sexual deviation with the potential for grievous harm (including amputation, cannibalism, and barebacking: Grov, 2004; Tewksbury,

2006) are also seen as a danger. On the other hand, due to the visibility of such subcultures on the internet, they can be addressed by research and interventions more easily.

### Conclusion

Although the number of studies on internet sexuality increases every year, there are still a number of research gaps: For example, English publications concerning sexual internet use in Islamic countries are missing. Studies on the growing numbers of older users are exceedingly rare. Quantitative data representative of the population at large are lacking for numerous aspects of internet sexuality. There is also a marked deficit of qualitative studies concerned with how online sexual activities are processed cognitively and emotionally by individuals, as well as with how such activities fit into an individual's sexual biography and impact relationships between sexual partners. Conspicuous is that virtually no studies have investigated how adolescents in fact could benefit in their sexual development from various forms of self-determined internet sexuality (e.g., online pornography, online sex). Additional academic work that critically engages with the current state of research in internet sexuality to expose gaps in research, uncover implicit ideological assumptions, and contribute to theory formation would be beneficial.

### References

- Adams, M. S., Oye, J., & Parker, T. S. (2003). Sexuality of older adults and the internet: From sex education to cybersex. *Sexual and Relationship Therapy*, 18(3), 405–415.
- Attwood, F. (2005). Fashion and passion: Marketing sex to women. Sexualities, 8(4), 392-406.
- Attwood, F. (2007). No money shot? Commerce, pornography and new sex taste cultures. *Sexualities*, 10(4), 441–456.
- Barak, A. (2005). Sexual harassment on the Internet. *Social Science Computer Review*, 23(1), 77–92.
- Barak, A., & Fisher, W. A. (2001). Toward an Internet-driven, theoretically-based, innovative approach to sex education. *Journal of Sex Research*, 38(4), 324–332.
- Barak, A., Fisher, W. A., Belfry, S., & Lashambe, D. R. (1999). Sex, guys, and cyberspace: Effects of internet pornography and individual differences on men's attitudes toward women. *Journal of Psychology & Human Sexuality*, 11(1), 63–91.
- Bernstein, E. (2007). Sex work for the middle classes. Sexualities, 10(4), 473-488.
- Boies, S. C. (2002). University students' uses of and reactions to online sexual information and entertainment: Links to online and offline sexual behaviour. *Canadian Journal of Human Sexuality*, 11(2), 77–89.
- Bolding, G., Davis, M., Hart, G., Sherr, L., & Elford, J. (2006). Heterosexual men and women who seek sex through the internet. *International Journal of STD & AIDS*, 17(8), 530–534.
- Bull, S. S., McFarlane, M., Lloyd, L., & Rietmeijer, C. (2004). The process of seeking sex partners online and implications for STD/HIV prevention. *AIDS Care*, 16(8), 1012–1020.
- Carvalheira, A., & Gomes, F. A. (2003). Cybersex in Portuguese chatrooms: A study of sexual behaviors related to online sex. *Journal of Sex & Marital Therapy*, 29(5), 345–360.
- Cooper, A. (1998). Sexuality and the internet: Surfing into the new millennium. CyberPsychology & Behavior, 1(2), 187–193.

Cooper, A., Golden, G. H., & Kent-Ferraro, J. (2002). Online sexual behaviors in the workplace: How can human resource departments and employee assistance programs respond effectively? Sexual Addiction & Compulsivity, 9(2–3), 149–165.

- Cooper, A., McLoughlin, I. P., & Campbell, K. M. (2000). Sexuality in cyberspace: Update for the 21st century. CyberPsychology & Behavior, 3(4), 521–536.
- Cooper, A., Scherer, C. R., Boies, S. C., & Gordon, B. L. (1999). Sexuality on the Internet: From sexual exploration to pathological expression. *Professional Psychology: Research and Practice*, 30(2), 154–164.
- Couch, D., & Liamputtong, P. (2007). Online dating and mating: Perceptions of risk and health among online users. *Health Risk & Society*, 9(3), 275–294.
- Cronin, B., & Davenport, E. (2001). E-rogenous zones: Positioning pornography in the digital economy. *Information Society*, 17(1), 33–48.
- Daneback, K., Cooper, A., & Månsson, S.-A. (2005). An Internet study of cybersex participants. *Archives of Sexual Behavior*, 34(3), 321–328.
- Daneback, K., Månsson, S.-A., & Ross, M. W. (2007). Using the Internet to find offline sex partners. *CyberPsychology & Behavior*, 10(1), 100–107.
- Daneback, K., Ross, M. W., & Månsson, S.-A. (2006). Characteristics and behaviors of sexual compulsives who use the Internet for sexual purposes. *Sexual Addiction & Compulsivity, 13*(1), 53–67.
- Davies, K., & Evans, L. (2007). A virtual view of managing violence among British escorts. Deviant Behavior, 28(6), 525–551.
- Dombrowski, S. C., Gischlar, K. L., & Durst, T. (2007). Safeguarding young people from cyber pornography and cyber sexual predation: A major dilemma of the internet. *Child Abuse Review*, *16*(3), 153–170.
- Döring, N. (2000). Feminist views of cybersex: Victimization, liberation, and empowerment. *Cyberpsychology & Behavior*, *3*(5), 863–884.
- Döring, N. (2007). Sex, solicitation of on Internet. In J. J. Arnett (Ed.), *Encyclopedia of children, adolescents, and the media* (Vol. 2, pp. 750–753). Thousand Oaks, CA: Sage.
- Döring, N. (2009). The internet's impact on sexuality. A critical review of 15 years of research. *Computers in Human Behavior*, 25(5), 1089–1101.
- Durkin, K., Forsyth, C. J., & Quinn, J. F. (2006). Pathological Internet communities: A new direction for sexual deviance research in a post-modern era. Sociological Spectrum, 26(6), 595–606.
- Fisher, W. A., & Barak, A. (2000). Online sex shops: Phenomenological, psychological, and ideological perspectives on Internet sexuality. *CyberPsychology & Behavior*, *3*(4), 575–589.
- Fisher, W. A., & Barak, A. (2001). Internet pornography: A social psychological perspective on internet sexuality. *Journal of Sex Research*, 38(4), 312–323.
- Gauthier, D. K., & Chaudoir, N. K. (2004). Tranny boyz: Cyber community support in negotiating sex and gender mobility among female to male transsexuals. *Deviant Behavior*, 25(4), 375–398.
- Gossett, J. L., & Byrne, S. (2002). "CLICK HERE": A content analysis of internet rape sites. Gender & Society, 16(5), 689–709.
- Gray, N. J., & Klein, J. D. (2006). Adolescents and the internet: Health and sexuality information. *Current Opinion in Obstetrics & Gynecology*, 18(5), 519–524.
- Grov, C. (2004). "Make me your death slave": Men who have sex with men and use the internet to intentionally spread HIV. *Deviant Behavior*, 25(4), 329–349.
- Hall, P. (2004). Online psychosexual therapy: A summary of pilot study findings. *Sexual and Relationship Therapy*, 19(2), 167–178.
- Hardy, S. (2008). The reality of pornography. Sexualities, 11(1-2), 60-64.
- Hegland, J., & Nelson, N. (2002). Cross-dressers in cyber-space: Exploring the Internet as a tool for expressing gendered identity. *International Journal of Sexuality and Gender Studies*, 7(2–3), 139–161.
- Heider, D., & Harp, D. (2002). New hope or old power: Democracy, pornography and the internet. *Howard Journal of Communications*, 13(4), 285–299.

Heinz, B., Gu, L., Inuzuka, A., & Zender, R. (2002). Under the rainbow flag: Webbing global gay identities. *International Journal of Sexuality & Gender Studies*, 7(2–3), 107–124.

- Hertlein, K. M., & Piercy, F. P. (2006). Internet infidelity: A critical review of the literature. *The Family Journal*, 14(4), 366–371.
- Hillier, L., & Harrison, L. (2007). Building realities less limited than their own: Young people practising same-sex attraction on the internet. *Sexualities*, 10(1), 82–100.
- Holt, T. J., & Blevins, K. R. (2007). Examining sex work from the client's perspective: Assessing johns using on-line. *Deviant Behavior*, 28(4), 333–354.
- Hughes, D. (2000). "Welcome to rape camp": Sexual exploitation and the Internet in Cambodia. *Journal of Sexual Aggression*, 6(1–2), 29–51.
- Hughes, D. (2003). Prostitution online. Journal of Trauma Practice, 2(3-4), 115-132.
- Innala, S. (2007). Pornography on the net: Same attraction, but new options *Sexologies*, 16(2), 112–120.
- Jacobs, K., Janssen, M., & Pasquinelli, M. (Eds.). (2007). C'lickme. A netporn studies reader. Amsterdam, NL: Institute of Network Cultures.
- Jones, C. (2001). Surfing the crime net: Sex tourism. Crime Prevention and Community Safety, 3(3), 53–57.
- Keller, S. N., LaBelle, H., Karimi, N., & Gupta, S. (2004). Talking about STD/HIV prevention: A look at communication online. AIDS Care, 16(8), 977–992.
- Kuhnen, K. (2007). Kinderpornographie und Internet (Child Pornography and Internet). Göttingen: Hogrefe.
- Lam, C. B., & Chan, D. K. S. (2007). The use of cyberpornography by young men in Hong Kong: Some psychosocial correlates. *Archives of Sexual Behavior*, *36*(4), 588–598.
- Leiblum, S., & Döring, N. (2002). Internet sexuality: Known risks and fresh chances for women. In A. Cooper (Ed.), Sex and the internet: A guidebook for clinicians (pp. 19–46). Philadelphia, PA: Brunner-Routledge.
- Lev, A. I., Dean, G., DeFilippis, L., Evernham, K., McLaughlin, L., & Phillips, C. (2005). Dykes and tykes: A virtual lesbian parenting community. *Journal of Lesbian Studies*, 9(1–2), 81–94.
- Lewandowski, S. (2003). Internetpornographie [Internet pornography.]. Zeitschrift für Sexualforschung, 16(4), 299–327.
- Li, D., Lu, H.-Z., Yong, X., & Zhang, A. (2006). Incomplete information about AIDS on Chinese websites. AIDS, 20(18), 2400–2402.
- Liau, A., Millett, G., & Marks, G. (2006). Meta-analytic examination of online sex-seeking and sexual risk behavior among men who have sex with men. *Sexually Transmitted Diseases*, *33*(9), 576–584.
- Lo, V.-H., & Wei, R. (2005). Exposure to Internet pornography and Taiwanese adolescents' sexual attitudes and behavior. *Journal of Broadcasting & Electronic Media*, 49(2), 221–237.
- Lou, C., Zhao, Q., Gao, E., & Shah, I. (2006). Can the Internet be used effectively to provide sex education to young people in China? *Journal of Adolescent Health*, 39(5), 720–728.
- Malesky, L. A., Jr., (2007). Predatory online behavior: Modus operandi of convicted sex offenders in identifying potential victims and contacting minors over the internet. *Journal of Child Sexual Abuse*, 16(2), 23–32.
- Malesky, L. A., Jr., & Ennis, L. (2004). Supportive distortions: An analysis of posts on a pedophile internet message board. *Journal of Addictions & Offender Counseling*, 24(2), 92–100.
- Malu, M. K., Challenor, R., Theobald, N., & Barton, S. E. (2004). Seeking and engaging in internet sex: A survey of patients attending genitourinary medicine clinics in Plymouth and in London. *International Journal of STD & AIDS*, 15(11), 720–724.
- Manning, J. C. (2006). The impact of Internet pornography on marriage and the family: A review of the research. *Sexual Addiction & Compulsivity*, 13(2–3), 131–165.
- McFarlane, M., Bull, S. S., & Reitmeijer, C. A. (2000). The Internet as a newly emerging risk environment for sexually transmitted diseases. *JAMA*, 284(4), 443–446.
- McFarlane, M., Bull, S. S., & Rietmeijer, C. A. (2002). Young adults on the internet: Risk behaviors for sexually transmitted diseases and HIV. *Journal of Adolescent Health*, 31(1), 11–16.

McKenna, K. Y. A., & Bargh, J. A. (1998). Coming out in the age of the internet: Identity "demarginalization" through virtual group participation. *Journal of Personality and Social Psychology*, 75(3), 681–694.

- McKenna, K. Y. A., Green, A. S., & Smith, P. K. (2001). Demarginalizing the sexual self. *Journal of Sex Research*, 38(4), 302–311.
- Mehta, M. D. (2001). Pornography in Usenet: A study of 9,800 randomly selected images. *CyberPsychology & Behavior*, 4(6), 695–703.
- Miller-Young, M. (2007). Sexy and smart: Black women and the politics of self-authorship in netporn. In K. Jacobs, M. Janssen, & M. Pasquinelli (Eds.), *C'lickme. A netporn studies reader* (pp. 205–226). Amsterdam, NL: Institute of Network Cultures.
- Millner, V. S., & Kiser, J. D. (2002). Sexual information and Internet resources. The Family Journal, 10(2), 234–239.
- Mitchell, K. J., Finkelhor, D., & Wolak, J. (2003). The exposure of youth to unwanted sexual material on the internet: A national survey of risk, impact, and prevention. *Youth & Society*, 34(3), 330–358.
- Mitchell, K. J., Wolak, J., & Finkelhor, D. (2005). Police posing as juveniles online to catch sex offenders: Is it working. *Sexual Abuse: Journal of Research and Treatment*, 17(3), 241–267.
- Mitchell, K. J., Wolak, J., & Finkelhor, D. (2007). Trends in youth reports of sexual solicitations, harassment and unwanted exposure to pornography on the internet. *Journal of Adolescent Health*, 40(2), 116–126.
- Nip, J. Y. M. (2003). The relationship between online and offline communities: The case of the queer sisters. *Media Culture & Society*, 26(3), 409–428.
- Padgett, P. M. (2007). Personal safety and sexual safety for women using online personal ads. Sexuality Research & Social Policy: A Journal of the NSRC, 4(2), 27–37.
- Podlas, K. (2000). Mistresses of their domain: How female entrepreneurs in cyberporn are initiating a gender power shift. *CyberPsychology & Behavior*, *3*(5), 847–854.
- Quayle, E., & Taylor, M. (2002). Child pornography and the Internet: Perpetuating a cycle of abuse. *Deviant Behavior*, 23(4), 331–362.
- Ray, A. (2007). Sex on the open market: Sex workers harness the power of the Internet. In K. Jacobs, M. Janssen, & M. Pasquinelli (Eds.), C'lickme. A netporn studies reader (pp. 45–68). Amsterdam, NL: Institute of Network Cultures.
- Richardson, C. R., Resnick, P. J., Hansen, D. L., Derry, H. A., & Rideout, V. J. (2002). Does pornography-blocking software block access to health information on the Internet? *JAMA*, 288(22), 2887–2894.
- Rietmeijer, C. A., & Shamos, S. J. (2007). HIV and sexually transmitted infection prevention online: Current state and future prospects. Sexuality Research & Social Policy: A Journal of the NSRC, 4(2), 65–73.
- Roberto, A. J., Zimmerman, R. S., Carlyle, K. E., & Abner, E. L. (2007). A computer-based approach to preventing pregnancy, STD, and HIV in rural adolescents. *Journal of Health Communication*, 12(1), 53–76.
- Ross, M. W., Rosser, B. R. S., & Stanton, J. (2004). Beliefs about cybersex and Internet-mediated sex of Latino men who have Internet sex with men: Relationships with sexual practices in cybersex and in real life. *AIDS Care*, 16(8), 1002–1011.
- Schauer, T. (2005). Women's porno: The heterosexual female gaze in porn sites "for women". Sexuality & Culture: An Interdisciplinary Quarterly, 9(2), 42–64.
- Schell, B. H., Martin, M. V., Hung, P. C. K., & Rueda, L. (2007). Cyber child pornography: A review paper of the social and legal issues and remedies and a proposed technological solution. *Aggression and Violent Behavior*, 12(1), 45–63.
- Schwartz, M. F., & Southern, S. (2000). Compulsive cybersex: The new tea room. *Sexual Addiction & Compulsivity*, 7(1–2), 127–144.
- Shapiro, E. (2004). "Trans" cending barriers: Transgender organizing on the internet. *Journal of Gay & Lesbian Social Services: Issues in Practice, Policy & Research*, 16(3–4), 165–179.
- Smith, M., Gertz, E., Alvarez, S., & Lurie, P. (2000). The content and accessibility of sex education information on the internet. *Health Education & Behavior*, 27(6), 684–694.

Surtees, R. (2008). Traffickers and trafficking in southern and Eastern Europe: Considering the other side of human trafficking. *European Journal of Criminology*, *5*(1), 39–68.

- Suzuki, L. K., & Calzo, J. P. (2004). The search for peer advice in cyberspace: An examination of online teen bulletin boards about health and sexuality. *Journal of Applied Developmental Psychology*, 25(6), 685–698.
- Tewksbury, R. (2006). "Click here for HIV": An analysis of Internet-based bug chasers and bug givers. *Deviant Behavior*, 27(4), 379–395.
- Træen, B., Nilsen, T. S., & Stigum, H. (2006). Use of pornography in traditional media and on the internet in Norway. *Journal of Sex Research*, 43(3), 245–254.
- Uy, J. M., Parsons, J. T., Bimbi, D. S., Koken, J. A., & Halkitis, P. N. (2004). Gay and bisexual male escorts who advertise on the Internet: Understanding reasons for and effects of involvement in commercial sex. *International Journal of Men's Health*, *3*(1), 11–26.
- Waldron, V. R., Lavitt, M., & Kelley, D. (2000). The nature and prevention of harm in technology mediated self-help settings: Three exemplars. *Journal of Technology in Human Services*, 17(2–3), 267–293.
- Waskul, D. D. (2002). The naked self: Being a body in televideo cybersex. *Symbolic Interaction*, 25(2), 199–227.
- Weiss, E., & Moore, K. (2003). An assessment of the quality of information available on the internet about the IUD and the potential impact on contraceptive choices. *Contraception*, 68, 359–364.
- Young, K. S. (2006). Online infidelity: Evaluation and treatment implications. *Journal of Couple and Relationship Therapy*, 5(2), 43–56.
- Zook, M. (2007). Report on the location of the internet adult industry. In K. Jacobs, M. Janssen, & M. Pasquinelli (Eds.), C'lickme. A netporn studies reader (pp. 103–124). Amsterdam, NL: Institute of Network Cultures.