Online Pornography:
Ubiquitous and Effaced

Susanna Paasonen

There is little doubt as to the centrality of pornography in terms of Internet history, its technical development, uses, business models, or legislation. In one overview after another, pornography is said to comprise a major part of websites and downloads, to take up the most bandwidth, and to generate the most profit of all web content. At the same time, pornography remains one of the more under-studied areas of Internet research. The lack of scholarly attention helps to support the circulation of unverified estimates concerning the volume and centrality of pornography. Furthermore, it illustrates a gap between the online phenomena that have become central objects of scholarly analysis, and the ubiquitous everyday uses of the medium (Cronin & Davenport, 2001, p. 34).

Pornography, Technology, and Moral Panics

The Internet, and web distribution in particular, have had considerable effects on the cultural visibility and accessibility of pornography. As porn distribution has branched and shifted online, consumers have the possibility of anonymous access to virtually endless variety of pornographies from the confines and comforts of their own home: from free porn sites to premium pay-sites, live shows and archives of literary erotica, a plethora of sexually explicit material is readily available. Pornography was certainly present already in pre-web bulletin board systems (BBS) and Usenet newsgroups in the form of both amateur representations and commercial images, and Usenet remains a central forum for peer exchanges (Mehta & Plaza, 1997; Barron & Kimmel, 2000; Mehta, 2001; Dery, 2007a; see Slater, 1998, on picture exchange on Internet relay chat). It was nevertheless the easy usability and the graphical interfaces of the World Wide Web which, since the first launch of Mosaic in 1993, marked a departure in ways of distributing and consuming pornography. While pornographic content has been central to a myriad of previous and parallel media technologies (video in particular springs to

mind), both the facility of accessing porn online and the broad range of available choices have worked to mark the Internet as *the* medium for porn.

Pornography has often been considered the first profitable form of online content production that suffered little from the dot.com crash of the early 2000s. It has been generally identified as an engine driving the development of media technology that is soon adapted to novel platforms and that generates fast profits (O'Toole, 1998; Lane, 2000; Filippo, 2000; Perdue, 2002). In this sense, it is hardly surprising that porn entrepreneurs were quick to make use of online distribution. These were initially independent operations whereas larger companies already operating on video and in print media branched out to the Internet after the mid-1990s (Perdue, 2002, p. 63). Pornography is quite justly known as a pioneering form of commercial content production and a driving force in the development of web technologies and business practices, from web hosting services to credit card processing, banner advertisement, web promotion, and streaming video technology (Filippo, 2000, p. 125; O'Toole, 1998, p. 285; Bennett, 2001, p. 381; Perdue, 2002). Porn also continues to take up considerable amount of bandwidth in web traffic due to the use of images and video. Some claim that porn comprises as much as 40 to 80 percent of all Internet traffic (Thornburgh & Lin, 2002, pp. 72–3; Perdue, 2002, pp. 33–5) although the development of peer-to-peer networks and file sharing has certainly made such estimates more difficult to verify. The overall profitability of porn production and distribution is undoubted, yet the variety of practices and business models, together with the difficulty of accessing reliable data concerning access and profit, make estimates difficult (Paasonen, Nikunen & Saarenmaa, 2007, p. 6).

According to the easily accessible statistics on the volume and use of online porn – such as those published by sites promoting filtering software (e.g. Net Nanny, CYBERsitter, Cyberpatrol, and Maxprotect), or sites promoting the protection of children and families like HealthyMind.com or FamilySafeMedia.com, arguably with some Christian-conservative undertones – porn comprises 14 percent of all websites and a quarter of all web searches. Studies published in peer review journals, however, offer much more moderate figures. According to a study by Spink, Partridge, and Jansen (2006), pornography comprises merely 3.8 percent of all web searches in comparison to 16.8 percent in 1997 (see also Jansen & Spink, 2006). The amount of pornographic sites or the total volume of the porn industry on a global scale is difficult to estimate due to conflicting information: as Coopersmith (2006, p. 2) points out, "gathering reliable data about web usage is inherently difficult because of its rapid growth, incomplete coverage of websites and poor research methodology." Estimates also seem to be published for certain ends in mind: sites promoting filtering software or lobbying for the regulation of adult content, for example, are likely to inflate their figures in order to feed both fears concerning the ubiquity of pornography and consumer interests towards their products. Filtering software, again, makes little distinction between hardcore pornography, sex education, and erotic poetry, conflating and equally filtering all. While estimates on the actual volume and role of porn in terms

of Internet content, economy, and usage vary drastically it is the more inflated figures that tend to be most widely referenced. The proportional volume of sites deemed "adult" was considerable in terms of all web content for a large part of the 1990s but as other forms of content increased, the relative volume of pornography has consequently decreased (Coopersmith, 2006, pp. 3–4). It seems, however, common knowledge that the Internet is awash with pornography.

Both the volume and the easy availability of online pornography has given rise to various moral panics, especially ones concerning children: children's exposure (voluntary and involuntary) to porn, online distribution of child pornography, and pedophile networking have all been widely addressed in the media as well as in academic studies (e.g. Freeman-Longo, 2000; Jenkins, 2001; Heins, 2001; Thornburgh & Lin, 2002; Levy, 2002; Greenfield, 2004; Kleinhans, 2004). Pornography, addiction, and the exposure of children to materials deemed "adult" have been associated with the medium at least since the 1995 *Times* article, which rather liberally categorized over 80 percent of all photographs online as pornographic and framed online pornography as a source of cultural anxiety concerning control and autonomy (Chun, 2006, pp. 77–80; Patterson, 2004, pp. 104–05). The theme of children dominates discussions of online pornography to the degree that database searches for anglophone articles on the topic result in numerous hits on pedophiles and sex crimes. While these are certainly issues of concern, it is noteworthy that the recurring co-articulations of Internet, pornography, and children work to frame online pornography in highly partial terms of social harm and risk. This says little of the actual range of online pornographies or their uses.

It should also be noted that the discourse of moral panics and danger is more active and prevalent in the US than in different European countries. While the Bush administration waged a war on porn online and offline, this should not be generalized as a global trend. As Kuipers (2006) illustrates in her comparative analysis of Dutch and US debates on online pornography, the construction of moral panics in the US involves "highly emotional and polarized debates, sustained media attention, the founding of organizations of distressed citizens, skewed and exaggerated representation of the nature and amount of pornography and sex on the internet and numerous attempts at government regulation" (p. 390). US debates are structured by the principle of freedom of speech on the one hand, and the practices of filtering, prohibiting, and shielding on the other. In contrast, education and professional guidance are central to Dutch responses to online porn. The notion of freedom of speech is not very dominant in the Netherlands, which is less rooted in libertarian discourses concerning the Internet (pp. 386, 391; White, 2006, on censorship and regulation in the US). In my view, the same goes for several other European countries.

Search engines routinely exclude pornography from their freely published listings of the most popular search terms. Studies of Internet economy and history, again, tend to pay little attention to pornography (for exceptions, see Lane, 2000; Perdue, 2002). The tendency to avoid and marginalize pornography as a topic

owes to the ethical and political questions associated with it – from the exploita-
tion of children and adult performers to the sexism of porn imageries, addictive
usage, and traffic in women (Hughes, 1999). During the "sex wars" of the 1980s,
feminist anti-pornography critiques defined pornography as exploitation of and
violence against women – as a form of sexist harassment and objectification (e.g.
McKinnon, 1987; Dworkin, 1989). Other anti-pornography advocates saw porn
as decaying the moral fiber and family life of the nation, and the two camps were,
in spite of their drastic political differences, occasionally aligned. Opposing voices
championing freedom of speech, again, argued for pornography as a form of
fantasy while also defending gay, lesbian, and queer forms of pornography (e.g.
Califia, 1994; Rubin, 1995). These debates, often caught in an unfortunate
"tired binary" (Juffer, 1998, p. 2) similar to that described by Kuipers in the
context of online porn, were waged largely in the US but they continue to shape
discussions on sexually explicit media as ones of either for or against on an inter-
national scale. This is also perhaps why scholars have been far less interested in
commercial mainstream porn catering to male consumers than in various subcultural,
artistic, independent, and amateur pornographies that are seen to shape and even
subvert the codes and conventions of pornography (e.g. Kibby & Costello, 2001;
Villarejo, 2004; Jacobs, 2004; Waskul, 2004; Halavais, 2005; Jacobs, Janssen, &
Pasquinelli, 2007). All in all, discussions on online pornography are still difficult
to detach from the binary logic structured around the anti-pornography and anti-
anti-pornography camps, moral panics, and debates concerning censorship and
freedom of speech (Ess, 1996). This also speaks of the dominance of North American
perspectives in studies of both pornography and the Internet.

Netporn and Alt Porn

Online porn has meant unprecedented visibility of sexual subcultures, diverse sexual
preferences, niches, and tastes. European scholars in particular have discussed this
proliferation under the term *netporn*, denoting "alternative body type tolerance
and amorphous queer sexuality, interesting art works and the writerly blogosphere,
visions of grotesque sex and warpunk activism" (Jacobs, Janssen, & Pasquinelli,
2007, p. 2). This definition marks netporn apart from porn on the net – the latter
referring to the circulation and reproduction of pornographies from print or video
online, and the former to experimental and artistic practices representing alterna-
tive aesthetics, politics, and economies, such as free sharing or activist uses of
the profits generated. Some identify netporn as exchanges and networked
experiences specific to the Internet that resist the commodity logic of the porn
industry (Shah, 2007). Others consider netporn an umbrella term for the diversity
of pornographies that have mushroomed online since the 1990s.

   Of the practices categorized as netporn, alt porn (also referred to as "alternative"
"indie" and "alt.porn") has received most scholarly attention to date. Alt porn,
as represented by the well-known and commercially successful sites SuicideGirls

and BurningAngel, features female models with tattoos, piercings, punk and Goth coiffures. Alt porn sites incorporate the softcore pornographic into the subcultural, inviting users to read the models' blogs and profiles and to join a community based on shared cultural codes, music, lifestyle, or general attitude (Mies, 2006; Attwood, 2007; Magnet, 2007). In her analysis of SuicideGirls, Magnet (2007) argues that its articulations of female sexuality and agency are conditioned and dominated by maxims of profit. While alt and indie porn sites have been seen to challenge the porn industry in terms of their ethics, aesthetics, and economies (Mies, 2006), the two are not necessarily antithetical. Cramer and Home (2007, p. 165) go as far as to call indie porn "the research and development arm of the porn industry." In a more moderate phrasing, Attwood (2007) points out that the porn industry has turned towards alt porn when seeking out new audiences and uses for its online platforms.

   The example of alt porn helps to illustrate both the dominance and the insufficiency of dualistic thinking when addressing online pornography. The alternative and the mainstream, the commercial and the non-commercial, the amateur and the professional – in addition to the already mentioned divisions between the anti-porn and anti-anti-porn stances – structure debates on porn at the very moment when such boundaries and opposites have become elastic indeed. So-called mainstream porn incorporates various fringes and extremities into its menu in order to attract new groups of users. *Hentai*, pornographic Japanese anime, which regularly displays fantastically exaggerated BDSM (bondage-domination-sadism-masochism) and non-consensual sex, is one example of this. As Dahlqvist and Vigilant (2004) illustrate, *hentai* was considered too extreme for video distribution in the 1990s, whereas it has since been incorporated as a niche into the diet of mainstream web porn sites. The bizarre catches the eye, attracts attention, and – perhaps – makes the visitor a paying user. Addressing this fragmentation of the mass market and the overall genre of pornography, Dery (2007b) argues that online pornographers aim to grab users "by their eyeballs" by showing them images amazing in their novelty, eccentricity, or extremity in order to mark themselves apart from that which is already familiar.

   In her analysis of the rhetoric of freedom and choice related to online pornography, Chun (2006) shows that porn sites offering endless subcategories and special preferences simultaneously form micro-markets and increase the visibility of fetishes and kinks that were previously deemed subcultural or highly marginal (also Bennett, 2001, p. 384). Porn distributed in newsgroups and BBSs was difficult to index whereas portals, meta-sites, and search engines have enabled a broad variety of categories for users to choose from and "all these categories are one click away from each other" (Chun, 2006, p. 106). Such development is evident in the rise of the genre which Langman (2004) has titled "grotesque degradation," with its extreme and often aggressively sexist sub-genres – including sites advertising "painful anal," "cum guzzling sluts," or scatophilia. This logic of differentiation means that "the mainstream" is far from being something stable or unified but is instead constantly divided into endless categories, choices and preferences that online users

need to navigate (Patterson, 2004, pp. 106–07). This also means that discussions of pornography as an assumedly unified and homogeneous entity are increasingly difficult and unconvincing.

Amateurs Abound

In addition to alt and indie porn, web distribution has increased the visibility of all kinds of marginal pornographies as the authors of artistic erotica, shoe fetish image galleries, vegan or fat porn are all making use of the web as a publishing platform (Tola, 2005). In comparison to magazine, video, or DVD publishing, the web is much more flexible and affordable for small producers (Lane, 2000, pp. 223–7; Thornburgh & Lin, 2002, pp. 82–3). Female porn entrepreneurs, often performing on the sites they run, have found novel forms of agency on the web, redefining the conditions of their work across the hierarchies of gender and race (Podlas, 2000; DeVoss, 2002; Miller-Young, 2007). For similar reasons, amateur pornographies have flourished online. Amateurs have been making porn in a range of media (still film cameras, Polaroid, or digital cameras) for decades whereas the "video revolution" of the 1980s – with easy-to-use video cameras and recorders – gave rise to amateur porn as a genre that was soon incorporated by the porn industry (O'Toole, 1998, p. 180; Patterson, 2004, pp. 110–11; Esch & Mayer, 2007, p. 10). Amateur pornographers can run their own sites and share their images and videos either privately or openly among anonymous users in forums ranging from newsgroups to professionally run websites with membership fees, streaming videos, and interaction possibilities (Lane, 2000, pp. 209–12; Patterson, 2004, pp. 110–19; Coopersmith, 2006, p. 2).

User-generated content has become increasingly central to business and site concepts of the so-called Web 2.0 (an industry-coined concept broadly describing the rise of wikis, blogs, podcasts, social networks, and communities in which users are content producers – or, according to the neologism, "produsers"). This is reflected in the high visibility of amateur pornographies and other sexually explicit representations produced – and partly also circulated – outside the porn industry. It also involves the blurring of the very notion of the pornographic: sexualized personal profiles on dating sites (according to popular practice men, for example, often choose to represent themselves through pictures of their genitalia) or explicit personal online exchanges (Attwood, 2006, pp. 79–81) can be seen as exemplifying the ways in which pornographic imagery or terminology provides templates for individual expressions of desire and arousal. As Mowlabocus (2007) points out, gay male pornography has become integral to gay self-representations online, particularly on dating sites. To the degree that these representations can be viewed as pornography – that is, as images viewed for arousal without any other interaction involved, all this involves a certain self-commodification (also McLelland, 2006, p. 81).

Amateur representations draw from the conventions of commercial pornography but they are more than mere approximations or imitations thereof. As the

"documentary aura" of 1970s hardcore porn films "complete with wrinkles and wayward pubic hairs" (Patton, 1991, p. 375) has given way to increasingly stylized, polished, and airbrushed video productions, particularly in the US, claims for the realness of the sexual acts and the people performing them are made elsewhere. The rawness and realness of amateur porn – the idea that the performers are not actors and that they assumedly do what they do because they like doing it – is an attraction that the porn industry has tapped into by appropriating "amateur" as a sub-genre. The rise of "gonzo porn" since the late 1980s (i.e., videos shot by male director–performers claiming to show everyday sexual adventures as they occur) and diverse reality site and video concepts in the 1990s similarly speak of the attraction and centrality of "the real" in pornographic depiction (Esch & Mayer, 2007). The attraction of realness and immediacy is equally central to online live shows such as those performed on webcams (Bennett, 2001, pp. 387–8; Chun, 2006, pp. 102–04).

In his studies of Usenet alt.fetish groups, Sergio Messina has titled the amateur porn images distributed in them as *realcore* – that is, as a genre that stands apart from the traditional markers of hardcore and softcore in its authenticity and overall realness (in Dery, 2007a). According to Messina, realcore is about the real desires of the performers who also desire to be seen: hence the audience has an integral role in the circuits of desire and pleasure involved in amateur porn. Since such pornographies exist outside the "complex" of the porn industry – in the sense of large production companies, casting agencies, star performers, commodity logic, and distribution networks – they are also considered more ethical and less problematic as consumable images. The same applies to alt porn and other variations of "netporn."

Porn exchanges have been active in peer-to-peer (P2P) networks, although these have also been heavily regulated due to the possibilities of exchanging child pornography (Greenfield, 2004; Phillips, 2005; Coopersmith, 2006, pp. 14–15). Jacobs sees P2P practices in general as challenging both the normative codes of porn and the clear division of porn performers and their audiences (in Tola, 2005; also Juffer, 1998, p. 11). Such blurring of the boundaries marking porn producers and performers apart from consumers and viewers can be seen as a more general trend evident within amateur porn. For some, this represents the democratization of pornography: anyone can produce their own pornography and, if they so desire, make a business out of it (Coopersmith, 2006, pp. 10–11). There is, however, no guarantee that audiences will find the content or that profits are actually made as most users browse for free porn.

Experiences of porn consumption are embedded in particular frameworks that are economic, aesthetic, social, as well as technological. These vary drastically between different media, as well as different online pornographies and their platforms: amateur image swapping one-on-one differs from distributing the same images in newsgroups, or uploading them to an amateur porn image gallery or a personal profile in an adult dating service. As Klastrup (2007) points out in an extra-pornographic context, online platforms of distribution, storage, and publication

involve codes and terms that shape and inspire both amateur productions and the ways of interpreting and interacting with them. These specificities need to be accounted for, if we are to understand some of the "social life" that these texts have.

Methodological Challenges

In discussions of online pornography, mainstream commercial pornography catering primarily to male heterosexual consumers and following the generic codes and conventions, as developed from print to screen, is positioned as the norm, yet it is rarely investigated or analyzed in itself. Given the scholarly attention directed towards alternative and independent pornographies, as well as extreme and abusive imageries, this aversion appears both striking and telling. The mainstream is, perhaps, assumed to be something too familiar and obvious to necessitate closer analysis. According to this logic, further investigations could only repeat that which we already know about pornography. At the same time, the shortage of actual studies addressing mainstream online porn means that this knowledge is based on assumptions and ad hoc discoveries.

Pornography tends to be generic even for a popular genre. With some risk of generalization, pornographic depiction draws on a limited and stylized range of terminology, characters, scenarios, and acts. Since these are easily recognizable, they are also easy to access in the sense of requiring little preparation on the part of the user. This leads to certain predictability as one video or image bears close resemblance to countless others. Furthermore, porn relies on clearly cut divisions and hierarchies. The roles of the seducer and the seduced or the dominant and the submissive are easily recognizable, and intertwined with identity categories such as age, gender, class, or ethnicity (Paasonen, 2006). Studies of pornography that limit themselves to stating this, or interpreting relations of control directly as ones concerning social power, however, largely miss the generic modality and specificity of pornography. While making claims for the realness of the bodies, acts, and pleasures shown, pornography is fundamentally unrealistic – or fantastic – in its hyperbolic display. Highly stylized and standardized, porn contrasts fantasy scenes with actual bodies, resulting in a highly carnal and visceral relation between the text and its consumer (Patton, 1991, pp. 378–9). The development of pornography as a genre has been addressed in the framework of film studies (centrally Williams, 1989). The new technologies of production and distribution call for closer investigations of how the genre has been shaped by networked communication. In any case, considerations of online pornography *as content* should pay special attention to its particular modalities and historically constructed specificities and characteristics, rather than providing readings that are either literal or make use of pornography as a cultural, social, or political metaphor. This is also a methodological question, and one necessitating more critical attention in studies of the Internet.

It is not exaggerated to claim that debates on pornography – popular, journalistic, and academic – are heavy with political investments, be these conservative-Christian, feminist, queer, or libertarian in character. Anti-pornography feminists oppose porn as a form of sexist oppression whereas other anti-porn advocates oppose it as something obscene, morally corrupt, and generally offensive. Some see pornography as emblematic of mass culture and the logic of sameness (and hence as predictable, repetitive, and generally poor content) and yet others as contributing to the general sexualization of culture, and as harmful to minors. Defenses of pornography, again, range from arguments for freedom of speech and trade to the importance of sexual fantasy and play, identity politics, and the visibility of diverse sexualities. The plethora of available online pornographies guarantees that virtually any stance on porn can be backed up with multiple examples supporting one's argument.

Anyone studying pornography is, quite justly, bound to face the question as to why she has chosen to study the examples she has, and to what degree her findings are to be generalized. This is due both to the range and diversity of different pornographies, and to histories of purposeful sampling: anti-pornography authors, for example, have been accused of using decontextualized BDSM imageries as evidence of porn as violence (Rubin, 1995, pp. 245–6). Similarly, reading online pornography as symptomatic of late modern capitalism and masculinity in crisis, Langman (2004) focuses on extreme and misogynistic examples to prove his point. Authors approaching online porn from a more positive angle, again, tend to focus on examples that challenge gender normativity, porn clichés and the commodity logic of the porn industry (Villarejo, 2005; Dery, 2007a; Shah, 2007).

One solution to the problems of focus and representativeness has been found from relatively large sampling enabling quantitative analysis. Following this principle, Mehta's (2001) study of pornography on Usenet in the mid-1990s involves a content analysis of 9,800 randomly selected images coded according to acts performed and the age of the performers, presented in statistical terms. Large samples, rather than analysis of singular sites, make it possible to argue something about general trends and conventions. This is also why I initially launched my own investigations into online porn through a sample of 366 email porn spam messages: rather than seeking out any particular kind of pornography, I chose to study the examples sent to my university account (Paasonen, 2006). While partial, I found such sampling justifiable in terms of both scope and method. The overall question concerning method and analysis is, however, considerably more complex.

Content analysis and other forms of "grounded theory" mean that the researcher theorizes on the basis of the research material, as analyzed though coding. This implies certain objectivity, "just looking" at what there is to be found, rather than approaching research material through a preconceived framework. Yet, given the political and affective investments involved in pornography and public debates concerning it, how is such neutrality to be achieved? Or, given the diversity of different forms of online pornography, can one come up with representative

samples (Buzzell, 2005, p. 32)? Large sampling is no guarantee for representativeness as such. In a 1995 study descriptively titled "Marketing pornography on the information superhighway: A survey of 917,410 images, descriptions, short stories, and animations downloaded 8.5 million times by consumers in over 2,000 cities in forty countries, provinces, and territories," Rimm addressed an exhausting volume of online pornography harvested mainly from BBSs with the aid of "linguistic parsing software," which meant analyzing image descriptions, rather than the images themselves. As critics of the study have pointed out, it tended to "inflate the prevalence of certain acts and underestimated others" while also suggesting that Internet "technology brings to the surface the perversity lying within us all" (Mehta, 2001, p. 696; Chun, 2006, p. 84). Certain problems are also involved in analyzing and making claims about images and animations that one has actually never seen.

Content description is to a degree already an interpretation that is filtered through the values, premises, and personal investments of the researcher in question. What one scholar identifies as violent pornography, another does not, and this influences both the coding and the results. Some might label the ubiquitous sites featuring "teen" and "barely legal" young women as child porn whereas others would decline to do so. Identifying elements such as the age or ethnicity in porn images is often difficult (due to low image resolution, cropping, partial focus or possible mutual partners) and can necessitate creative readings (see also Mehta, 2001, pp. 699–700). Due to the role of interpretation and reading, there is a need to integrate methods of textual analysis – such as representational analysis, iconography, or close reading – into the palette of social sciences research methods (Paasonen, 2007). There is, however, relatively little discussion to date on research methods and their various implications in studies of pornography. Methodological discussions are bound to become increasingly pertinent as online pornography becomes less under-studied than it is today. As several researchers have already pointed out, this broadening of scholarly attention towards online pornography should also mean hearing from its consumers – their choices, preferences, and experiences (Lillie, 2002; Buzzell, 2005; Attwood, 2005; McKee, 2006). A focus on pornographic texts, independent of the exact method used, produces knowledge about their forms, conventions, and relative prevalence. While researchers can interpret their meanings and implications, such investigations cannot account for the meanings attached to them in experiences and acts of consumption.

Local and Global

In addition to methodological issues, more attention needs to be paid to the international variations, traffic, and economy of online porn: currently, case studies tend to be much too focused on US examples. It is hardly breaking news that pornography is business on a global scale: that products and capital circulate, that people move and that business is networked. Online distribution has helped to

efface some of the meanings of location as people access porn from servers around the world and upload their own contributions virtually independent of their physical whereabouts. In addition to global circulation and access to porn, local productions address smaller niche audiences (in terms of language and cultural context as well as sexual preferences). Hence Italian or Finnish users have the choice of accessing porn that is locally produced and features well-known performers as well as semi-amateur "girls next door," or browsing pornographies produced elsewhere and distributed in a range of languages. The US continues to dominate porn production and distribution but it is countered by local practices and business strategies: in Europe, companies network in order to resist US dominance on the market.

From the perspective of the porn industry, online distribution has obvious benefits. It necessitates no manufacture of physical products (such as DVDs or magazines) and bandwidth expenses replace those involved in retail. Online distribution also enables bypassing local legislation as content deemed illegal in one country can be hosted on a server situated elsewhere. Locally, the question is then one of regulating access – something that has been done with child pornography but less with other kinds of pornographies in Western countries. In a global perspective, the regulation of online pornography (and of the Internet in general) varies considerably, as do understandings concerning the category of pornography (Kuipers, 2006; Paasonen, Nikunen, & Saarenmaa, 2007, pp. 15–16). At the same time, the proliferation of online pornographies, mainstream and fringe alike, questions the very notion of the pornographic. All this makes context specificity imperative when producing knowledge about online pornographies, their aesthetics, audiences, or economies. Rather than contributing to the dichotomous dynamics prevalent in popular media discourses, academic studies should be committed to accounting for the diversities and possible complexities involved.

In terms of porn use, the Internet has opened up a maze of options that necessitates some navigation skill. Porn addiction has become a central theme of public debate and concern, even if forms of addictive or compulsive use most often associated with the Internet – namely porn and gambling – are hardly specific or native to the medium in question (e.g. Cooper et al., 1999; Putnam & Maheu, 2000; Schneider, 2000; Griffiths, 2000). The discourse of addiction has perhaps worked to simplify the specific dynamics involved in searching and browsing for online porn. As Patterson (2004) points out, the experiences of accessing membership sites and searching for free porn vary considerably. Whereas the former mainly involves choosing from a relatively limited selection, the latter involves searching, frustration, waiting, and delay. While online porn promises immediate gratification, the actual pleasures of surfing for porn are different and based on the desire for something new. This perpetual movement is crucial to the experience and pleasure of web browsing (pp. 109–10; also Lillie, 2002, p. 38). The continuous motion from one document to another is not necessarily initiated by

the user herself since pornographic sites have been long known to make use of pop-ups and to "mouse-trap" users by forwarding them to forever new pages as they try to close the browser window (Chun, 2006, pp. 124–5; Coopersmith, 2006, p. 9). Furthermore, hyperlinks often lead to directions unintended by the user: to use one example, meta-site links for free porn in virtually any category are likely to lead to any number of pay-sites (Bennett, 2001, p. 385).

It is not sufficient to consider the Internet a platform or "container" for pornography that has merely taken up the functions of magazines, DVDs, or VHS tapes in the distribution and consumption of porn. Rather, "sexual desires are being mediated through the pleasures of the technology itself, and the particular fantasies it has to offer" (Patterson, 2004, p. 119). In the case of online porn, these involve possibilities of interaction, anonymity, realness, and transparency – the interaction of bodies, interfaces, and network technologies that give rise to particular kinds of expectations and experiences (Lillie, 2002, pp. 37–41; also Uebel, 2000). Uses of Internet porn are by and large private, yet the medium also enables new kinds of interactions, intimacies, intensities, and exchanges that are social in nature (Lillie, 2002; Reading, 2005). These experiences and possibilities mark a departure from pornographies distributed in other media. At the same time, it is important not to overemphasize the differences between "traditional" porn and "cyberporn." Digital and network technologies have opened up new forms of circulation and exchange while also incorporating and appropriating familiar aesthetics, commodity forms, and practices of usage. Consequently, considerations of online pornography need to pay attention to intermedial ties and developments in order not to detach digital exchanges from their historical contexts.

Research methods, local contexts, and intermedial connections all represent challenges to studies of online porn. In addition, the movements of porn economy remain a challenge to scholarly analysis, online as well as offline, since information on the economies of porn enterprise is hard to come by. It also seems that the volume of free pornography currently available is compromising the success of commercial sites that have previously been seen as impervious to economic oscillations. Not only are DVD sales on the decrease, but also commercial porn sites are finding it difficult to compete with free user-generated pornographies. At the time of writing, YouPorn, the pornographic version of the video publishing service YouTube launched in 2006, was the highest-ranking adult site. Necessitating no subscription fees, with users sharing videos among themselves, YouPorn – like its multiple competitors with similar business concepts – makes its profits on advertisement revenues and premium membership fees. The massive popularity of such sites represents a shift in the economies and perhaps also in the aesthetics and ethics of online porn. Pornographic content production may not be the most popular example in discussions of produsage, Web 2.0, or participatory culture. Given the central role of pornography in the development of online business and web technologies, these recent developments may nevertheless be telling of fundamental transformations in commercial content production and distribution more generally.

References

Attwood, F. (2005). What do people do with porn? Qualitative research into the consumption, use and experience of pornography and other sexually explicit media. *Sexuality & Culture*, 9(2), 65–86.

Attwood, F. (2006). Sexed up: Theorizing the sexualization of culture. *Sexualities*, 9(1), 77–94.

Attwood, F. (2007). No money shot? Commerce, pornography and new sex taste cultures. *Sexualities*, 10(4), 441–56.

Barron, M., & Kimmel, M. (2000). Sexual violence in three pornographic media: Towards a sociological explanation. *The Journal of Sex Research*, 37(2), 161–8.

Bennett, D. (2001). Pornography-dot-com: Eroticising privacy on the Internet. *Review of Education/Pedagogy/Cultural Studies*, 23(4), 381–91.

Buzzell, T. (2005). Demographic characteristics of persons using pornography in three technological contexts. *Sexuality & Culture*, 9(1), 28–48.

Califia, P. (1994). *Public Culture: The Culture of Radical Sex*. Pittsburgh: Cleis Press.

Chun, W. H. K. (2006). *Control and Freedom: Power and Paranoia in the Age of Fiber Optics*. Cambridge, MA: MIT Press.

Cooper, A., Putnam, D. E., Planchon, L. A., & Boies, S. C. (1999). Online sexual compulsivity: Getting tangled in the net. *Sexual Addiction & Compulsivity*, 6(2), 79–104.

Coopersmith, J. (2006). Does your mother know what you *really* do? The changing nature and image of computer-based pornography. *History and Technology*, 22(1), 1–25.

Cramer, F., & Home, S. (2007). Pornographic coding. In K. Jacobs, M. Janssen, & M. Pasquinelli (eds.), *C'Lick Me: A Netporn Studies Reader* (pp. 159–71). Amsterdam: Institute of Network Cultures.

Cronin, B., & Davenport, E. (2001). E-rogenous zones: Positioning pornography in the digital economy. *The Information Society*, 17(1), 33–48.

Dahlqvist, J. P., & Vigilant, L. G. (2004). Way better than real: Manga sex to tentacle hentai. In D. D. Waskul (ed.), *Net.seXXX: Readings of Sex, Pornography, and the Internet* (pp. 91–103). New York: Peter Lang.

Dery, M. (2007a). Naked lunch: Talking realcore with Sergio Messina. In K. Jacobs, M. Janssen, & M. Pasquinelli (eds.), *C'Lick Me: A Netporn Studies Reader* (pp. 17–30). Amsterdam: Institute of Network Cultures.

Dery, M. (2007b). Paradise lust: Pornotopia meets the culture wars. In K. Jacobs, M. Janssen, & M. Pasquinelli (eds.), *C'Lick Me: A Netporn Studies Reader* (pp. 125–48). Amsterdam: Institute of Network Cultures.

DeVoss, D. (2002). Women's porn sites – Spaces of fissure and eruption, or, "I'm a little bit of everything." *Sexuality & Culture*, 6(3), 75–94.

Dworkin, A. (1989). *Pornography: Men Possessing Women*. E. P. Dutton, New York.

Esch, K., & Mayer, V. (2007). How unprofessional: The profitable partnership of amateur porn and celebrity culture. In S. Paasonen, K. Nikunen, & L. Saarenmaa (eds.), *Pornification: Sex and Sexuality in Media Culture* (pp. 99–111). Oxford: Berg.

Ess, C. (1996). Philosophical approaches to pornography, free speech, and CMC. Cyberspace as Plato's *Republic*: Or, why this special issue? *Computer-Mediated Communication Magazine*, 3(1). Retrieved February 28, 2008, from http://www.december.com/cmc/mag/1996/jan/ed.html.

Filippo, J. di (2000). Pornography on the web. In D. Gauntlett (ed.), *Web.Studies: Rewiring Media Studies for the Digital Age* (pp. 122–9). London: Arnold.

Freeman-Longo, R. E. (2000). Children, teens, and sex on the Internet. *Sexual Addiction & Compulsivity*, 7 (1/2), 75–90.

Greenfield, P. M. (2004). Inadvertent exposure to pornography on the Internet: Implications of peer-to-peer file-sharing networks for child development and families. *Applied Developmental Psychology*, 25(6), 741–50.

Griffiths, M. (2000). Does Internet and computer "addiction" exist? Some case study evidence. *CyberPsychology & Behavior*, 3(2), 211–18.

Halavais, A. (2005). Small pornographies. *ACM SIGGROUP Bulletin*, 25(2), 19–22.

Heins, M. (2001). *Not in Front of the Children: "Indecency," Censorship, and the Innocence of Youth.* New York: Hill and Wang.

Hughes, D. (1999). The Internet and global prostitution industry. In S. Hawthrone & R. Klein (eds.), *CyberFeminism: Connectivity, Critique and Creativity* (pp. 185–21). Melbourne: Spinifex.

Jacobs, K. (2004). The new media schooling of the amateur pornographer: Negotiating contracts and singing orgasm. Retrieved February 28, 2008, from http://www.libidot.org/katrien/tester/articles/negotiating-print.html.

Jacobs, K., Janssen, M., & Pasquinelli, M. (2007) Introduction. In K. Jacobs, M. Janssen, & M. Pasquinelli (eds.), *C'Lick Me: A Netporn Studies Reader* (pp. 1–3). Amsterdam: Institute of Network Cultures.

Jansen, B. J., & Spink, A. (2006). How are we searching the World Wide Web? A comparison of nine search engine transaction logs. *Information Processing and Management*, 42(1), 258–9.

Jenkins, P. (2001). *Beyond Tolerance: Child Pornography on the Internet.* New York: New York University Press.

Juffer, J. (1998). *At Home with Pornography: Women, Sex, and Everyday Life.* New York: New York University Press.

Kibby, M., & Costello, B. (2001) Between the image and the act: Interactive sex entertainment on the Internet. *Sexualities: Studies in Culture and Society*, 4(3), 353–69.

Klastrup, L. (2007). From texts to artefacts: Storytelling version 3.0. Paper presented at the NordMedia 2007 conference, Helsinki, 16–19 August.

Kleinhans, C. (2004). Virtual child porn: The law and the semiotic of the image. In P. Church Gibson (ed.), *More Dirty Looks: Gender, Pornography and Power*, 2nd edn. (pp. 71–84). London: BFI.

Kuipers, G. (2006). The social construction of digital danger: Debating, defusing and inflating the moral dangers of online humor and pornography in the Netherlands and the United States. *New Media & Society*, 8(3), 379–400.

Lane, F. S. III (2000). *Obscene Profits: The Entrepreneurs of Pornography in the Cyber Age.* New York: Routledge.

Langman, L. (2004). Grotesque degradation: Globalization, carnivalization, and cyberporn. In D. D. Waskul (ed.), *Net.seXXX: Readings of Sex, Pornography, and the Internet* (pp. 193–216). New York: Peter Lang.

Levy, N. (2002). Virtual child pornography: The eroticization of inequality. *Ethics and Information Technology*, 4(4), 319–23.

Lillie, J. (2002). Sexuality and cyberporn: Towards a new agenda for research. *Sexuality & Culture*, 6(2), 25–47.

MacKinnon, C. (1987). *Feminism Unmodified: Discourses on Life and Law*. Cambridge, MA: Harvard University Press.

Magnet, S. (2007). Feminist sexualities, race and the Internet: An investigation of Suicidegirls.com. *New Media & Society*, 9(4), 577–602.

McKee, A. (2006). The aesthetics of pornography: The insights of consumers. *Continuum: Journal of Media & Cultural Studies*, 20(4), 523–39.

McLelland, M. (2006). The best website for men who have sex with men: Cruisingforsex.com. In A. McKee (ed.), *Beautiful Things in Popular Culture* (pp. 79–86). Oxford: Blackwell.

Mehta, M. D. (2001). Pornography in Usenet: A study of 9,800 randomly selected images. *CyberPsychology & Behavior*, 4(6), 695–703.

Mehta, M. D., & Plaza, D. (1997). Content analysis of pornographic images available on the Internet. *The Information Society*, 13(2), 153–61.

Mies, G. (2006). Evolution of the alternative: History and controversies of the alt-erotica industry. *American Sexuality Magazine*. Retrieved February 28, 2008, from http://nsrc.sfsu.edu/MagArticle.cfm?Article=631&PageID=0.

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'Lick Me: A Netporn Studies Reader* (pp. 205–16). Amsterdam: Institute of Network Cultures.

Mowlabocus, S. (2007). Gay men and the pornification of everyday life. In S. Paasonen, K. Nikunen, & L. Saarenmaa (eds.), *Pornification: Sex and Sexuality in Media Culture* (pp. 61–72). Oxford: Berg.

O'Toole, L. (1998). *Pornocopia: Porn, Sex, Technology and Desire*. London: Serpent's Tail.

Paasonen, S. (2006). Email from Nancy Nutsucker: Representation and gendered address in online pornography. *European Journal of Cultural Studies*, 9(4), 403–20.

Paasonen, S. (2007). Strange bedfellows: Pornography, affect and feminist reading. *Feminist Theory*, 8(1), 43–57.

Paasonen, S., Nikunen, K., & Saarenmaa, L. (2007). Pornification and the education of desire. In S. Paasonen, K. Nikunen, & L. Saarenmaa (eds.), *Pornification: Sex and Sexuality in Media Culture* (pp. 1–20). Oxford: Berg.

Patterson, Z. (2004). Going on-line: Consuming pornography in the digital era. In L. Williams (ed.), *Porn Studies* (pp. 104–23). Durham, NC: Duke University Press.

Patton, C. (1991). Visualizing safe sex: When pedagogy and pornography collide. In D. Fuss (ed.), *Inside/Out: Lesbian Theories, Gay Theories* (pp. 373–86). New York: Routledge.

Perdue, L. (2002). *Erotica Biz: How Sex Shaped the Internet*. New York: Writers Club Press.

Phillips, D. (2005). Can desire go on without a body? Pornographic exchange and the death of the sun. *Culture Machine/InterZone*. Retrieved February 28, 2008, from http://culturemachine.tees.ac.uk/InterZone/dphillips.html.

Podlas, K. (2000). Mistresses of their domain: How female entrepreneurs in cyberporn are initiating a gender power shift. *CyberPsychology & Behavior*, 3(5), 847–54.

Putnam, D. E., & Maheu, M. M. (2000). Online sexual addiction and compulsivity: Integrating web resources and behavioral telehealth in treatment. *Sexual Addiction & Compulsivity*, 7(2), 91–112.

Reading, A. (2005). Professing porn or obscene browsing? On proper distance in the university classroom. *Media, Culture & Society*, 27(1), 123–30.

Rimm, M. (1995). Marketing pornography on the information superhighway: a survey of 917,410 images, descriptions, short stories, and animations downloaded 8.5 million times by consumers in over 2,000 cities in forty countries, provinces, and territories. *Georgetown Law Journal*, 83(5), 1849–934.

Rubin, G. (1995). Misguided, dangerous and wrong: An analysis of anti-pornography politics. In G. Dines & J. M. Humez (eds.), *Gender, Race and Class in Media: A Text-Reader* (pp. 244–53). Thousand Oaks, CA: Sage.

Schneider, J. P. (2000). Effects of cybersex addiction on the family: Results of a survey. *Sexual Addiction & Compulsivity*, 7(1), 31–58.

Shah, N. (2007). PlayBlog: Pornography, performance and cyberspace. In K. Jacobs, M. Janssen, & M. Pasquinelli (eds.), *C'Lick Me: A Netporn Studies Reader* (pp. 31–44). Amsterdam: Institute of Network Cultures.

Slater, D. (1998). Trading sexpics on IRC: Embodiment and authenticity on the Internet. *Body & Society*, 4(4), 91–117.

Spink, A., Partridge, H., & Jansen, B. J. (2006). Sexual and pornographic web searching: Trend analysis. *First Monday*, 11(9). Retrieved February 28, 2008, from http://www.firstmonday.org/issues/issue11_9/spink/index.html.

Thornburgh, D., & Lin, H. S. (2002). *Youth, Pornography, and the Internet*. Computer Science and Telecommunications Board, National Science Council. Washington, DC: National Academy Press.

Tola, M. (2005). Re-routing the (a)sex drives of Big Dickie: Interview with Katrien Jacobs. Retrieved February 28, 2008, from http://www.networkcultures.org/netporn/index.php?onderdeelID=1&paginaID=13&itemID=70.

Uebel, M. (2000). Toward a symptomatology of cyberporn. *Theory & Event*, 3(4). Retrieved February 28, 2008, from http://muse.jhu.edu/journals/theory_and_event/v003/3.4uebel.html.

Villarejo, A. (2004). Defycategory.com, or the place of categories in intermedia. In P. Church Gibson (ed.), *More Dirty Looks: Gender, Pornography and Power*, 2nd edn. (pp. 85–91). London: BFI.

Waskul, D. D. (2004). *Net.seXXX: Readings of Sex, Pornography, and the Internet*. New York: Peter Lang.

White, A. E. (2006). *Virtually Obscene: The Case for an Uncensored Internet*. Jefferson: McFarland.

Williams, L. (1989). *Hard Core: Power, Pleasure, and the "Frenzy of the Visible."* Berkeley: University of California Press.