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A user's manual

Hardcore, abundant and free: what is online pornography doing to sexual tastes—and youngsters' minds?

Sep 26th 2015 | From the print edition



IN 2003 Peter Morley-Souter, a British teenager whose hobby was drawing comic strips with his sister Rose, was sent a parody of “Calvin and Hobbes”, a strip about a six-year-old boy and his stuffed tiger, by a friend. It showed the titular pair having sex with Calvin’s mother. Mr Morley-Souter posted his response online: a cartoon showing his anguished expression as he stared at his screen (not shown), captioned “Rule 34: There is porn of it. No exceptions.”

Back then Rule 34 seemed an exaggeration, though one that held enough truth about the variety of smut to be found online that the phrase quickly caught on. Now it seems pretty close to reality. Images and videos on commercial pornography sites and fast-growing “tubes”—aggregators that host free amateur and professional content, making their money from advertising—are searchable by hundreds of terms, including the performers’ attributes, the acts depicted and the body parts featured. No kink or “squick” (an “icky” kink) is too obscure to have its own website, from adult-baby minding to zoophilia.

“The internet is for porn,” as the lyrics of a song from “Avenue Q”, a Broadway musical, put it—another exaggeration with a kernel of truth. Ogi Ogas and Sai Gaddam, two neuroscientists, have used a variety of sources to estimate how much of the web is dedicated to porn and how often that material is accessed. Their findings are presented in a book, “A Billion Wicked Thoughts”. They calculate that of the million most-visited websites, listed by Alexa, a web-analytics firm, 4% are dedicated to pornography. Many big non-specialist sites, such as Tumblr, where users curate images, show

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erotic content too.

Mr Ogas and Mr Gaddam also analysed all 434m searches entered into Dogpile, a site that returns results from all the biggest search engines, between July 2009 and February 2011. Almost 49m, or 11%, were of an obviously sexual nature. Another dataset containing three months' worth of searches by 660,000 customers of AOL, which the internet service provider (ISP) released in 2006, allowed them to establish that some seemingly innocent terms were more often searched for in strings of searches for sexual material—"college cheerleaders", for example. The sex of about a tenth of the AOL customers could be inferred from their other searches, which, together with data from Pornhub, the biggest commercial porn site, allowed the pair to compare the proclivities of men and women. Women seem less keen on porn than men: Pornhub says that a quarter of its visitors are women. But those women who do like porn mostly view the same stuff as men; far more visit Pornhub and the like than sites aimed at women.

Ever since Palaeolithic humans worked out how to paint and carve, new media have been used for sexually explicit representations. Some of the earliest photographs and films depicted disrobing or nude women. But they were pricey: in the mid-1800s, before the advent of negatives and half-tone printing, a photo of a naked prostitute cost more than engaging her for sex. Not until 1953, when Hugh Hefner launched *Playboy* with a nude photograph of Marilyn Monroe, did porn go mass-market. By the 1980s video had made it possible to watch X-rated films at home. Some attribute the victory of VHS over Betamax to Sony's refusal to allow pornographers to use its technology for mass production.

Brown paper ripper

The growth of smut unleashed a moral panic. Influenced by a left-right alliance of feminists and religious conservatives, a federal commission in 1986 concluded that pornography demeaned women, caused sexual violence and lasting damage to adolescents, and presented a "clear and present danger to American public health". But as time passed, those conclusions appeared alarmist. Women's status rose and rates of rape, domestic abuse and teenage pregnancy fell across the developed world. Several studies exploiting variations in the timing of more liberal pornography laws in different countries conclude that the greater availability of pornography could even have played a part in falling violence.

But, as Rule 34 and "Avenue Q" suggest, porn has now escaped the confines of girlie mags and skin flicks. The result is a new porn panic. Free material on tube sites and amateur blogs has led commercial pornographers to produce ever more extreme content to survive (see [article](#)). Many porn sites are hosted in Russia and other lawless places, leaving countries with age ratings and rules against ultra-violent and scatological images unable to enforce them. Portable devices make it easy to view porn in the privacy of a bedroom—or in the workplace or playground. Tech-minded teenagers can easily bypass content filters with the help of a VPN (virtual private network).

Some anti-porn campaigners reprise old arguments: in Iceland, which recently considered an (unworkable) ban on online porn, activists cited supposed links with sexual violence, harm to children and the degradation of women. Others, though, cite fresh concerns. On the NoFap Reddit forum ("fapping" is slang for masturbating), comments cite not moral objections or potential harms to others, but the effects on viewers themselves. Many members say they have watched pornography since their early teens and that they are addicted to it. Some say that without it they can no longer get an erection or reach orgasm.

The sharpest fears concern teenagers, now likely to see a vast amount of pornography long before becoming sexually active. Will they fail to understand how unrealistic it is? What are the pneumatic female stars and ever-ready, freakishly endowed male ones doing to their viewers' body images and self-esteem? Some who work with adolescents, including Meg Kaplan, a psychologist at Columbia University who treats those convicted of sex offences,

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Pornography



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think it likely that some sexual tastes are formed around puberty. That means ill-timed exposure to unpleasant or bizarre material could cause a lifelong problem.

A huge social shift raising profound concerns: you might think it would have triggered an avalanche of high-quality, well-funded research. You would be wrong. In 2013 the Office of the Children's Commissioner in England assessed the effects of porn on young people. On balance, it concluded, pornography did appear to influence them in negative ways, in particular by creating unrealistic beliefs about sex. The team used titles and abstracts to identify 2,304 papers, but on reading them discarded all but 276. It concluded that only 79 offered high-quality evidence.

Research funders in Britain and elsewhere are often reluctant to touch sexual topics, let alone porn. Programme officers at America's National Institutes of Health (NIH) advise applicants to avoid using the word "sexual" in funding requests, says Nicole Prause, a neuroscientist at UCLA—even when the topic is sexual functioning. No computer purchased with NIH funding may contain sexual images or films, raising the question of how sex researchers are supposed to go about their work. Dr Kaplan says she has been struggling for years to get funding from any source to study young sex offenders. Even research into normal sexual functioning is lacking, she laments. What hope is there of understanding how things can go wrong?

The best way to study the effects of porn would be to show it to a randomly selected set of people, with a control group watching other exciting stuff, such as car chases or sport. Subsequent differences in actions and attitudes could be tracked over time. In 1986 Neil Malamuth of UCLA used this approach to demonstrate that exposure to violent pornography hardened misogynistic attitudes, perhaps by normalising them—though only in men who already held them. But since then, ethics committees have clamped down on such studies. If even one rape defendant were to blame his crime on porn provided by a researcher—however unfairly—it would be a financial and public-relations disaster.



So most studies of pornography go no further than establishing correlations between how much people say they watch and their other characteristics. Various researchers have found that reported porn use is higher among those with relationship difficulties, erectile dysfunction and many other social and medical problems. Heavy users are more likely to have become sexually active early, to regard sex as a mere physiological function, like eating or drinking, and to have tried to coerce others into sex. But no one knows which came first: the porn or the problem.

Young people are particularly hard to study. Showing pornography to the under-age is illegal in most places, meaning that researchers must rely on self-reporting. But teenagers rarely talk openly to adults about anything, let alone embarrassing habits that they know are

frowned on. And asking only about direct exposure misses those who have not viewed porn themselves, but have heard about it from classmates. So the results of surveys, such as a pan-European one in 2010 which found that 14% of 9- to 16-year-olds had seen porn during the previous year, are likely to be underestimates. That survey also predated smartphones and iPads, which have made porn much easier to access, and the explosive increase in free material. Other researchers have asked university students when they first saw porn, but that relies on accurate recall and the results are guaranteed to be out of date.

Why do you think the net was born?

One of the most alarming assertions is that users can become dependent on porn in the same way that others are on drugs. In March ChildLine and NSPCC, two big children's charities, published a survey claiming that one in ten British 12- to 13-year-olds feared they were "addicted to porn". It soon became clear that it had been carried out by a market-research firm better known for brand-building exercises. Dozens of academics and sex educators signed an open letter saying it was not "indicative of actual harm but rather, provides evidence that some young people are fearful that pornography is harming them".

Better evidence suggests that porn addiction, if it exists, is very rare. Valerie Voon of Cambridge University studied 23 men whose use of porn had caused them serious problems: some had lost jobs or partners because of their inability to control their viewing, and others had spent enormous sums on porn sites or said they were unable to achieve an erection without pornography. Scans of their brains as they viewed pornography showed patterns typical of drug-takers looking at drug cues. Some displayed a classic sign of addiction: despite craving pornography, they seemed no longer to enjoy it. In another study of "attentional bias" they responded abnormally quickly to pornographic images—also typical of addiction. Similar patterns were not seen in controls. But even within this severely affected group, Dr Voon saw a wide variation in brain response.

Ms Prause has also scanned the brains of men and women who describe themselves as viewing too much porn. She found no connection between the number and severity of the problems they reported and the "drug-like" nature of their responses to pornographic images. Conservative attitudes or a religious family background may be the factors that increase the likelihood of reporting problematic use of pornography, she says. "With porn, people say they are addicted when they just like it."

"Clients are more alarmist than I am," says Ian Kerner, a sex therapist and author of "She Comes First: The Thinking Man's Guide to Pleasuring a Woman". Many view a lot of online porn, report low libido and erectile or orgasmic difficulties, and conclude that they are addicted to the stuff. But often their problems can be solved rather simply. Dr Kerner asked a dozen clients with erectile issues to abstain from online porn for a few weeks. They masturbated less: it took too much work to fantasise unaided, put on a DVD or buy a magazine. Several found that their libidos returned.

The most common effect of a porn habit, says Geoffrey Miller, a psychologist at the University of New Mexico, is a tendency to watch a bit less television. But some callers to "The Mating Grounds", his podcast about sex, are young men who have opted out of relationships and much else: working in low-stress jobs, smoking a lot of pot and watching a great deal of pornography. They ask how to turn their lives around and get a girlfriend. Mr Miller recommends some simple steps, starting with exercise and a better diet, and progressing to mindfulness exercises and brushing up on general knowledge, all of which "raises their mate value". Easy substitutes for real pleasures do not cause their problems, he says, but make it easier to stay stuck in a rut.

You'll know it when you see it

Some fear that users of online porn who start with vanilla fare will click through to more outré stuff and develop a taste for it. This could, conceivably, be a danger for adolescents. But adults' tastes seem to be pretty fixed—and quite mundane. Mr Ogas and Mr Gaddam

discovered that most of those searching for pornography have just one or two stable interests (body parts, sexual practices, performers' characteristics and so on). During the three months covered by the AOL data, 56% of those who searched for porn used terms in just one category. The average number of categories was two. Less than 1% searched for terms in ten categories or more. The top four categories were words relating to youth, breasts, vaginas and buttocks. The modal online sexual interest of a heterosexual male is "busty teen" or a variant, says Mr Ogas. "Men don't start searching for big breasts and work up to bestiality."

That is reassuring, as far as it goes. But even if porn usage does not change viewers' tastes, could it be affecting bedroom etiquette? In a study published last year, researchers at London University sought to find out whether porn played a part in young people's decisions to have anal sex. They interviewed 130 16- to 18-year-olds, some in groups and some alone. Both sexes regarded it as likely to be pleasurable for men but painful for women, at least if they were "uptight" or "naive". Many of the young men described pressing girlfriends to consent; young women said they continued to be asked, sometimes forcefully, even after repeated refusals.

The participants said that porn "made" men want anal sex—an explanation Cicely Marston, one of the researchers, describes as "partial, at best". The desire evinced by many young men to boast of sexual conquests seemed to be at least as influential. But porn's influence was evident in their understanding of sex more generally. The researchers asked them to name all the sexual practices they knew of. They listed many porn tropes, such as threesomes and gang bangs, and some scatological and extremely violent acts made notorious by particular clips and films.

Without longitudinal studies, though, it is hard to know whether there has been a broad shift in sexual practices, and if so, whether porn played a part. Cindy Gallop, an advertising executive, offers an intriguing, and disturbing, insight. In 2003, aged 43, she was pitching for an online-dating agency's account. To study the market, she signed up with several of its competitors. E-mails from men in their 20s flooded in.

Since Ms Gallop, too, was interested in no-strings sex, she found herself in a position to sample changing sexual mores up close. In 2009 she created a website, makelovenotporn.com, to debunk ten "myths from porn world" that seemed to have become common currency among young men, such as the idea that calling women filthy names during sex is a sure-fire way to turn them on. A four-minute TED talk she gave about her experiences was one of the most discussed that year, and has since been watched on YouTube more than a million times.



Ms Gallop is still receiving e-mails from all over the world. They suggest that young women,

too, have had their sexual sensibilities shaped by porn. Young couples thank her for sparking a conversation in which they discovered that neither had been enjoying things they had been doing in bed only because each thought the other expected them. She has since created makelovenotporn.tv, a video-sharing site aimed at making real-world sex “socially acceptable and socially shareable”, and hopes to set up another for sex-education materials, if she can find funding.

Some are responding to the flood of online porn by trying to dam it. In 2013 Britain's government forced ISPs to block adult content from new customers' computers unless they turned filters off. Since most customers did so, the government now plans to shut down adult websites that do not force users to prove that they are over 18, perhaps via an anonymised ID check with the electoral roll or credit-reference agencies. Since most porn sites are based outside Britain, it intends to make ISPs block websites that do not comply.

Filters at least stop children from seeing unsavoury stuff by accident. But anyone seeking porn can easily bypass them with a VPN, and wholesale blocking of legal material may break European rules that forbid ISPs from treating one sort of traffic differently from others. Denmark, where sex education has been compulsory since 1970, is taking a different approach. Rather than trying to pretend porn does not exist, or stop young people from seeing it, some Danish teachers are starting to discuss it in the classroom. “It's not a question of introducing pupils to porn,” says Christian Graugaard, a professor of sexology at Aalborg University who would like such lessons to go nationwide. “The overwhelming majority of both girls and boys have already encountered pornographic images in their early teens.” Porn can be used to talk about gender equality, safe sex and the meaning of consent, he says—and about how to have a happy sex life in the future. Since porn is all around them, he thinks, “it's important young people learn to be critical consumers.”

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