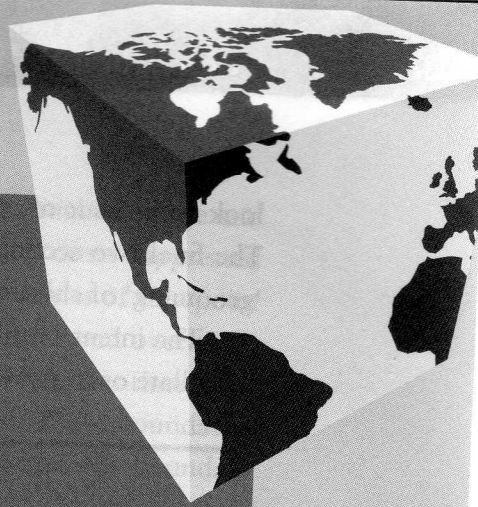


# 5



## SEX AND TECHNOLOGY

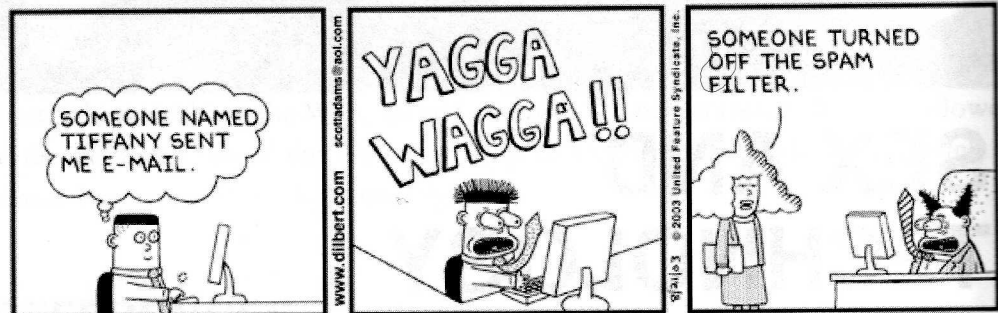
### INTRODUCTION

This is a difficult topic to cover in a book such as this, because of the sensitivities of some readers. However, sex is a part of human life, and technological developments and sex have a long combined history. The chapters in this book are written to be mostly self-contained, and this one in particular can be missed out should a reader or course organizer feel that the material is not necessary. In addition, due to the sensitive nature of some of the topics in this chapter, it is written as self-contained sections, allowing parts to be skipped over. The ubiquity of references to online matters involving sex requires that the topic be covered in a book such as this.

We begin with a discussion of the nature of what we term 'sexual material'. Even this definition itself is not clear cut. A brief overview of the nature of sexual material in different cultures and different times in history is presented, followed by some details on legislation in various Western countries, and international agreements regarding availability of sexual material. Next we

look at the issue of controlling access to material, by topic type and by viewer type. The final two sections cover the separate issues of child pornography and online 'grooming' of children by molesters.

The intent of this chapter is to inform and provide a basis for discussion, not to titillate or to provide a road map for finding sexual material online.



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## THE NATURE OF SEXUAL MATERIAL

### One Man's Art...

Nudity or being only partially clothed is variously acceptable or unacceptable in different cultures. Depictions of nudity or partial nudity in art (two-dimensional art, such as a painting, or three-dimensional art, such as a sculpture) may follow cultural norms for 'real bodies' or may deviate from them. The acceptability of various depictions may even vary within a society, being restricted to particular classes or castes. Often, though not always, there are differences in restrictions for the genders. In this book, we are concerned primarily with the impact of technology, and particularly computer and networking technology, on cultural attitudes and laws. Dependent on culture, background, age and attitude, one person's 'art' is another's 'erotica' and a third's 'obscenity'. Through the rest of this chapter we consider, where useful, this categorization of material: art is generally accepted and is usually held to be suitable for universal viewing, although sometimes restricted

by age or class; erotica is acceptable, but viewed as definitely sexual in nature and is usually restricted; obscenity is not generally acceptable and is often suppressed in some fashion. There are, of course, boundary areas and differences of viewpoint within cultures and times as there are differences between cultures and over time. Some people may be under the impression that there is a simple shift over time, with less and less being considered obscene, but this is not the case. These boundaries ebb and shift and flow and, even within a single person's lifetime, the boundary can shift either way.

Erotica: socially acceptable sexual material

Pornography: socially unacceptable sexual material

## The Medium and the Message

When the term 'online pornography' is mentioned, the category 'nude images of females' is probably what is evoked for most. However, this is not the sum total of what we are considering in this chapter. Material of a sexual nature can be in a variety of forms: textual material: written depictions of romance, love, sex and 'sexually stimulating topics'; sound files; images; video (with or without audio). Sometimes the mode of transmission is also relevant: is the material available whole; is it encrypted; is it for sale or for free; can it be downloaded and kept or is it 'streamed'; is it a 'live transmission' or a recorded piece; is it 'interactive' or a 'set piece'; is it a single sequence or an edited piece?

## Use of Technology to (Re)Produce Sexual Material

From fresco painters in classical Rome via the printing press, the telephone and the computer bulletin board to the Internet, technological means of communication have always been used (some might say abused) to produce and disseminate sexual material. The debate about the influence of easily available sexual material has a

history just as long. There were schools of philosophy (the ascetics, for instance) in classical times that eschewed pleasure, including material which might inflame sexual desire. The Marquis de Sade's literary efforts were initially suppressed (though not entirely successfully). Work now regarded as 'classic' has been restricted in distribution; Lady Chatterly's Lover was deemed obscene in some countries, as much for the depictions of sex between a noble lady and a servant as for the actual language and explicit nature of the text. Some, such as Tierney (1994), even see desire for easily accessed sexual material as a primary driving force behind technological innovation. The adoption of new technology by the 'sex industry' is seen as a perversion of the initial 'Garden of Eden' purity by others, such as the United Kingdom's Viewers and Listeners Association whose founder Mary Whitehouse became synonymous in the United Kingdom with complaints about sex, violence and swearing on television and radio. Sensational reporting of the prevalence of sexual material on the Internet and usenet in particular (Elmer-Dewitt 1995, based on the work of Rimm of Carnegie Mellon University) is still quoted by pundits and politicians alike in their support of censorship of the online world, despite both the methods and data having been shown to be completely spurious.

## **Techno-Sex**

In this section, we consider how computer and communication technologies have been adapted to use with sexual material.

### **Telephones**

#### **Voice calls**

A 'call-girl' was originally a prostitute with whom arrangements were made by telephone. Particularly for business men, it made sense to make arrangements by phone rather than wander into a red-light district.

#### **Premium-rate voice calls**

The development of 'premium rate' telephone services (i.e. services where the cost of the call is much higher than the normal 'connection charge') has led to a

variety of telephone 'information services' providing sports scores and so on (see Chapter 2). These types of services were also quickly adopted by the sex industry for both interactive and broadcast types of service. Most consumers know, of course, that the provided service is pure fantasy. The broadcast 'sounds of sex' are often no more real sex than that in soft-porn videos (or in many feature films). The self-described 'tall skinny blonde with large breasts' talking dirty down the phone line is as likely to be an overweight lady with grey hair as to be the woman of one's dreams. However, the 'fantasy' is what this is all about. As the providers in the sex industry know well, sex happens as much in the brain as the body.

### **Premium-rate SMS**

While fixed-line telephones have been around and ubiquitous for most of a century with few technical developments directly affecting users, the mobile, or cell, phone continues to see developments. Originally seen as a gimmick, short messaging service (SMS) has become a big hit and the source of much of the service's revenues. An even more recent development has been premium-rate SMS. Subscribing to receive information, such as sports scores, or 'semi-interactive' services, such as requesting new ring tones, were seen as the ways premium-rate SMS might be used.

However, when combined with cheap television broadcast by cable or satellite, premium-rate SMS has led to an interesting recent development. There are a number of channels in the United Kingdom which make their income from a combination of premium-rate SMS and telephone calls, as well as by selling advertising. The channels consist of a number of scantily clad women on picture-in-picture segments of a screen. There are constantly-running adverts for phone-sex lines running in another small part of the screen. The bulk of the screen is taken up by premium-rate text messages making comments on the activities of the women on-screen. Requests to reveal further pieces of anatomy, or to show feet or shoes or for interaction between the women (tickling or kissing) are sent in and some of these are acted upon. The women on-screen encourage multiple messages (whether from one individual or from multiple viewers doesn't matter since each message costs any sender the same and makes the station their profit). In many ways this can be seen

as the television/telephone equivalent of a table-dancing club. The attraction for the viewer is the privacy of watching from one's home (see the discussion in the next section on the illusion of privacy afforded by technological access to material). Such premium rate telephone services in the United Kingdom are self-regulated by The Independent Committee for the Supervision of Standards of Telephone Information Services (ICSTIS), which is more likely to receive complaints about 'spam' text messages rather than sex-related services like this.

### **MMS and camera phones**

The development of digital photography has led to an increase in the invasion of privacy with 'voyeur' pictures of people in gym or swimming-pool changing rooms, or 'angle shots' showing semi-nudity in public, such as a shot taken on a staircase looking up a woman's skirt. However, even with very small digital cameras, it is still the case that the photographer is fairly obviously doing something wrong. There is an even bigger problem with camera-enabled mobile phones in that the user appears to be simply using the phone to send a text message or look up a piece of information held in the phone's memory when in reality they may be taking a picture and even sending it out immediately as a multimedia message. This has become a serious enough problem that some gyms and even schools have banned the use of mobile phones in changing rooms, or even the entire premises. There are proposals to criminalize such invasions of privacy in the United States through the draft Video Voyeurism Prevention Act.

Short Messaging Service (SMS): a short piece of text passed between digital mobile phones  
Multimedia Messaging Service (MMS): pictures passed between 2.5G or 3G mobile phones

### **Internet 're-diallers'**

When many users connected to the Internet via a standard modem, by making a voice telephone call to an ISP, malicious programs (see Chapter 11) could change

the phone number to a premium-rate number, even an international premium-rate number. This was particularly a problem with sex sites informing users that they were being 're-directed to our pay server', while changing the default access number, not just the access number for that session. Users receiving quarterly bills for phone services could be hit with enormous bills (tens or hundreds of times their usual bill) after such incidents. This was a particular problem in Australia, with online newsletter Australian IT ([australianit.news.com.au](http://australianit.news.com.au)) regularly reporting on it: on 21 August 2003, it reported that the Australian Telecommunications Industry Ombudsman received 921 complaints about such Internet re-dialling systems in the first quarter of 2003, rising to 1039 complaints in the second quarter. The move of many users to broadband connections has reduced the problem but not removed it. Regulators are still struggling with the problem.

Re-dialler: a program which surreptitiously changes the number used to dial up an ISP, usually to a premium-rate phone number

### 2.5G, 3G mobile phone services

In internal discussions, and sometimes openly, mobile phone operators are expecting provision of sexual material to become one of their big money-spinners. However, they are also wary of the possible costs that may come with 'moral outrage' and hence are rather shy about discussing these ideas in public. As with Internet-based material, it is the 'illusion of privacy' that they are hoping will encourage use of these technologies.

### BBS

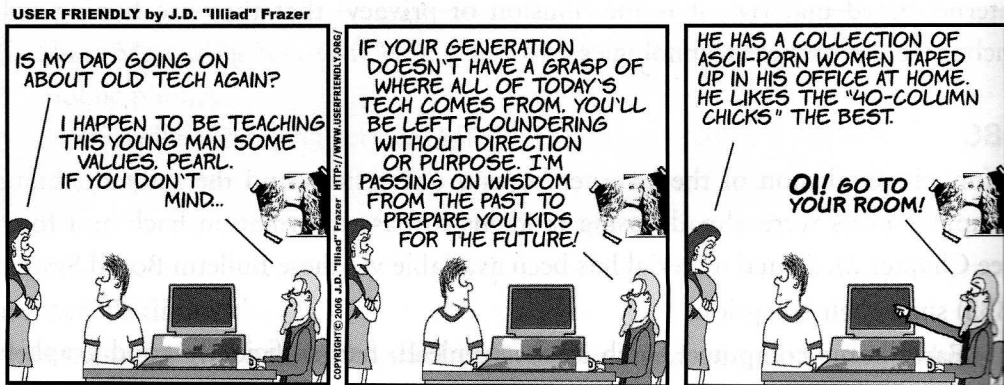
Before the explosion of the Internet beyond universities and the military, home computer users were already using modems to pass information back and forth (see Chapter 2). Sexual material has been available via these Bulletin Board System (BBS) since their inception.

Early home computers, such as the Apple II, had sufficiently good graphics and the technophile owners of such machines were capable of buying or putting

together image scanners before they became a common peripheral. This led to the scanning of both professional sex-magazine images and 'amateur' polaroid material and its posting on BBS. However, the slow rates of early modems kept this activity highly restricted to specialist BBS on the whole. Since a good quality (in purely technical terms) image would take up as much space as hundreds of long text files, the owners or operators of many BBS would not carry such material, not through any moral dislike of it, but simply to discourage hogging of the limited connections to their machines. Those BBS that carried usenet newsgroups would also often restrict themselves to non-binary groups for the same reason. BBS dedicated to various sex-related topics emerged, sometimes 'advertised' via the relevant no-binaries newsgroups.

The development of lossy compression formats such as JPEG, which is particularly good for digital photographs, and the benefits and limitations of graphics formats would require a whole chapter by themselves (see Chapter 3 for some information). Users have obviously been forgiving of the limitations of the technology in their quest for sexual material online.

Bulletin Board System (BBS): an early intermittent networking system allowing owners of home computers to dial in to local servers or each other's computers and pass files around





### Mailing lists

Unlike the semi-public activity on usenet, mailing lists can be much more private. Participants can be vetted and to some extent controlled, by the administrator of the list. Participants therefore may well be more open on such lists. However, the private nature of controlled-subscription mailing lists (as opposed to open-subscription ones such as the 'sf-lovers mailing list', the forerunner of one of the highest volume usenet newsgroups) mean that little is known of the details of mailing lists with sexual content, except to note that their existence is apparent from public references on usenet and web pages.

### Usenet news

Although the infamous Rimm survey (Elmer-Dewitt 1995) was wrong in its estimation of what proportion of usenet usage is devoted to sex, there is quite a lot of sexual material available on usenet. Usenet was, and continues to be, a huge arena. The fact that only a very small percentage of that traffic is sexual material still allows for huge amounts of material to be available. Before the Web, usenet was the medium of choice for distributing a great deal of material. Of course, system administrators with either moral or commercial grounds for not carrying all of usenet have often deliberately not carried the obviously sexual newsgroups, and the binaries groups have simply too much traffic for many sites, even today.

### FTP

To avoid the restrictions on binaries newsgroups, early sexual material in binary form was often placed on FTP sites and the location posted to suitable newsgroups. Sites allowing 'anonymous' uploading (i.e. uploading of material without a specific username on that machine) did exist and some sites which did not intend to allow this did so inadvertently, thus becoming temporary havens for sexual material, the existence of which might be publicized through private or public email lists or via usenet.

### Sexual spam

With the growth of personal Internet use and the profitability of paid-for sexual material on the Web, spam has become a means of advertising sex as much as

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it has for hydraulic materials, medication and computer software. There are two reasons why sexual spam is a specific problem. The first is that while adverts for 'gearboxes for 4X4 vehicles' are annoying, they are not usually offensive for their content, simply for their unsolicited presence in one's inbox. Adverts with subject lines such as 'Teens being rammed' (and that's a relatively tame one compared with some subject lines that appear in the authors' inboxes) can be highly upsetting for some people. There is evidence that some people are being put off using email and the Internet simply because of the sexual spam that comes their way when they first go online. There is a particular problem with children and such spam, which is discussed in the section on protecting children from online sexual material. As with spam in general, so long as some people respond, spammers will keep wanting to send it out. The reluctance of some users to search directly for the material is also likely to mean that sexual spam retains its popularity with the advertisers longer than other spam content. The second reason why sexual spam is a particular problem is that it may reinforce the view that the Internet is awash with sexual material. This can lead to a puritan backlash, such as that following the Rimm report, which can lead to unsuitable attempts at regulation.

### **The Web**

The biggest boon to online sex, of course, was the twin development of the Web and personal Internet access from home. As with all other areas of e-commerce, these were the drivers for an explosion in commercial sites offering sexual material. As with other areas of digital download e-commerce, though, the availability of free material (originally only through usenet then through the free archives of such older material) produced difficulties for those wishing to cash in on sex on the Web. Some commentators have posited that sex is one of the driving forces behind the development and availability of web technology. While it is almost certainly the case that some people have gained much wealth from providing sexual material over the Web, it is also true that it is not a universally easy way to make money. Initial interest by existing print publishers of sexual material (such as Playboy) has not been continued with much enthusiasm. Like the record companies, they see the Web and Internet access as much as a threat as an opportunity. Particularly

as many see the Web as a place to find free material, they may be right in that it may undercut their business, particularly as the illusion of privacy is even more secure for downloading than for having material physically delivered. However, the existing organizations may well have a head start on their competitors for delivering more 'technologically advanced' forms of sexual material such as video and live multimedia.

### **Blue movies**

The video recorder, outside the television broadcast industry, was originally a corporate and military tool for training purposes, replacing the more awkward cine-projection. The 'Umatic' format was particularly prevalent in military circles and, as with cine-projection before it, a circle of unofficial 'blue movie' distribution took advantage of the accessibility of the technology and the demand for the material. Many commentators attribute the success of home video recorders to blue-movie sales and rentals. This ignores the fact that it was video recorders, rather than players, that succeeded in the marketplace. Since there was little use for the recording feature for sexual material (before cheap video camera availability) this seems a dubious premise. While the availability of blue movies is undoubtedly a factor in the success of 'home video', it is only one factor among many and probably not the deciding factor.

Satellite and cable broadcasts, first analogue and now digital transmission, with their wide range of channel availability, have led to some interesting issues. Again, some of these involve protecting children from unsuitable material, dealt with later in this chapter. The development of encrypted channels and the protection of 'copyrighted sexual material' owes as much to the sex industry as to Hollywood blockbusters. As with home video, it is probably overstating things to say that sex is the prime reason for success in subscription and pay-per-view services, but it is undoubtedly a factor.

DVD has replaced video tape as the medium of choice for 'physically shipped' home entertainment these days. Despite the possibilities of multiple soundtracks offered by digital broadcasting, this has not really caught on. Nor is it much of an issue in blue-movie DVDs: few consumers are that bothered if the soundtrack is in

Swedish: the plots are so thin that not understanding the words doesn't matter much to most viewers. One aspect of mass-market DVD players, however, does seem to be primarily for the sex market and that is the 'multiple angle' viewpoint. There seem to be three possible uses for this: martial arts films where, particularly in the Far East, there is interest in seeing special stunts from multiple angles; sports material where multiple angles again allow a choice of viewing; and blue movies. Few, if any, martial arts or sports DVDs seem yet to take advantage of this feature, yet it is on almost all mass-market DVD players and the authors therefore assume that it is seen as a necessity for truly professional blue-movie production for DVD distribution.

### **Computer games**

Since the early days of interactive computing (Spacewar on the PDP-1 at MIT), games have always been available (see Chapter 3). What wasn't mentioned in that chapter though, is that sexual elements have been present in some games from quite early on. OnLine Systems published an adventure game called Softporn. In adventure games such as this, the usual 'goal' of the game is to collect various objects and combine or use them in specific locations to complete set tasks. In fantasy settings, this might take the form of finding armour and a weapon and killing a monster. In Softporn, the goal was to find two women and persuade them to have sex with you (in one case, this involved finding a way to obtain a condom as a subsidiary goal). While OnLine Systems made their name from flashy (for the time) use of graphics, Softporn was a text-only adventure, but that didn't stop it from selling well and receiving top marks in reviews. These reviews can still be found online, although care is needed when searching for Softporn on the Web: system administrators may not believe your explanation.

Such adult entertainment has been a constant section of computer games for home use ever since, including such well-known titles as Leisure Suit Larry (also from OnLine Systems), which was released in 1987 and, despite qualms by some computer-store owners about displaying it on their shelves, this graphical sex adventure was named Best Adventure/Fantasy Role-Playing Game of the Year by the Software Publishers Association and spawned six direct sequels and at least one 'upgraded' version of the original with higher-resolution graphics. Improving

graphics on PCs and home machines such as the Commodore Amiga and the Atari ST led to more graphically oriented games such as strip poker with various opponents available. In more modern times, there are still sexual computer games, although the availability of more material online seems to have diminished their presence in the marketplace. However, the spirit of the original Softporn and Leisure Suit Larry hackers is still alive, particularly in the world of gaming pinup Lara Croft. Despite a variety of rumours and April Fool jokes, there are no built in 'cheat codes' to turn Lara Croft nude in the Tomb Raider games. However, graphical adventure games such as Tomb Raider consist of two main elements for their graphics: the shapes and the 'skins' and it is possible to download a patch for the game which substitutes topless and nude skins as overlays for various Tomb Raider games, as well as a patch for the end of one of the games for a full-motion video (FMV) of Lara in the shower. Eidos and Core Design have not made particular efforts to suppress the availability of these patches, although they refuse to endorse them, of course.

### **Peer-to-peer technologies**

As mentioned in other chapters, the development of a variety of peer-to-peer technologies has taken the Internet back much closer to its roots than the web culture of servers and clients. ISPs offering 'always on' service but not allowing the running of web servers have been bypassed by peer-to-peer systems. The most high-profile use of peer-to-peer networking has been the sharing of music, but sexual material of all forms (graphics, sounds and text) is also available on peer-to-peer systems, usually as a parallel distribution channel for material available elsewhere. Companies interested in providing paid for material via peer-to-peer systems regard sexual material in the same way those trying to make money from the Internet in other ways do: unless they have a particular legal or cultural normative problem, the marketplace demand dictates that they try to supply it. As we see in the sections on attempts to control the content of the Internet, whether that be to keep sexual material unavailable or to prevent distribution of music and movies, the architecture of the Internet is now a constant battleground of control against freedom and peer-to-peer distribution of sexual material is just one front line.

## Anonymity: Reality and Illusion

In the English-speaking countries of the developed world (the United States, Canada, the United Kingdom, the Republic of Ireland, Australia and New Zealand), there is a certain amount of sexual prudishness extant in society that differs from the legal situation. Although the law allows for a variety of sexual material to be legitimately available, the societal norms still restrict how comfortable many feel in publicly purchasing such material. The promises of sex magazines and subscription-only sex channels on television to 'deliver discreetly' and that 'our name will not appear on your credit card bill' show how important some level of anonymity is to at least some of the 'consumers' of such material. This 'anonymity' is obviously limited: in particular, a consumer's access to such material is anonymous with respect to friends, neighbours, and possibly family or partner. It is anonymity to a similar extent that gives Internet users a sense of security when accessing pornographic content online in these countries. However, this sense of anonymity can be misleading. In other European countries, the purchase and utilization of sexual material is both lawful and less often subject to societal censure. In other parts of the world, however, access to material regarded in Europe as non-sexual (or completely harmless though very mildly sexual) may be unlawful or strongly disapproved of by society. In countries such as Iran, with strong puritanical Islamic legal codes, even pictures of women with their hair on display may be regarded as obscene. Thus pictures available in places such as the Internet Movie Database ([www.imdb.com](http://www.imdb.com)), drawn from publicity stills or 'celebrity photos' of film stars in revealing dresses, swimwear or similar, are at least socially forbidden and sometimes illegal.

We consider in Chapter 4 the technical status of the user with respect to their ISP and law-enforcement agencies, so we will not reiterate the discussion of the legal aspects of anonymity here. Instead we consider the 'social' aspects of access to online material, and consider whether online access to sexual material has increased the amount 'consumed' or the number of individuals 'consuming' it.

The consumer of sexual material who wishes to hide that consumption, but has no access to computer-based material, must find a way to source that material.

Where the material is legal, there will be legitimate outlets for it, but the consumer must physically visit such outlets, at least in an initial instance although following a first visit it is possible that all further transactions might be carried out by mail and phone, having obtained sufficient information on contact details. Delivery of materials by mail entails the physical presence of a magazine, video tape or DVD. Discovery therefore remains a possibility, the likelihood dependent on who the consumer is trying to hide the consumption from: inadvertent exposure to neighbours or occasional visitors is unlikely, but the chance of exposure to those sharing accommodation must be quite high. Compare this with the chances of exposure from online surfing. The evidence is still there, of course, in caches, proxy records or ISP traces. However, the inadvertent discovery of these is less likely and some straightforward precautions such as clearing browser cache and history before exiting conceals activity from a casual inspection.

Thus we might posit that there will be a segment of society who will be deterred from buying magazines with sexual content, or visiting sex shops, simply on the basis of embarrassment from the possibility of being seen by a known acquaintance, or even simply from the necessity of interacting with the shopkeeper. For those thus deterred, sexual material online could make the difference between consumption and non-consumption. It is a matter of debate whether access to such material has any effect on the consumer, and whether such effects are universally positive or negative, or varied. We simply note here that it is likely that the 'apparent anonymity' of access to material online is likely to increase the number of consumers, possibly only marginally.

### **Accessing Sexual Material at Work**

Viewing sex web sites or receiving sexual material by email at work has become one of the commonest reasons given for dismissal of employees. A survey for the human resources magazine *Personnel Today* in 2002 reported that 69% of all dismissals in the previous year had been for surfing sex sites on the Web.

Being the boss is no protection either, as Michael Soden found out in 2004. He was the CEO of the Bank of Ireland. Two of his earliest acts as CEO had been to update the company's computer usage policy, including tightening up the rules on personal use of company computers and Internet connections, and to outsource the IT department to HP. When his work PC was subject to regular maintenance work by the IT department they discovered sexual content on it that contravened the company's acceptable usage policy. Soden swiftly resigned. The case was not over, however, as the Bank of Ireland and HP then argued over Soden's severance package. This might seem strange since Soden had breached company policy but it seems there is one rule for low-level staff, who are frequently dismissed with a worrying lack of due process, and another for executives. The Bank of Ireland claimed that it was not the fact of his breach of company policy that forced Soden's resignation but the fact that it became public knowledge and that was down to the now HP-employed IT staff. Hence the severance package and the Bank's claim that it was HP who should pay it. Full details can be found at [www.theregister.co.uk/2004/11/22/hp\\_porn\\_row/](http://www.theregister.co.uk/2004/11/22/hp_porn_row/).

## Anon Servers

With home computers and commercial ISPs, one can be assured of relative anonymity for online activities. Who is to know that fluffybunnydemon@flubundem.net is in fact a highly respected professor of English literature at an Ivy League university. (Note that flubundem.net is not registered at time of writing and the authors know of no one who meets this description; it is simply an invented example.) In the 1980s and early 1990s, however, when access to the Internet was mostly restricted to universities, the military and some workplaces, posts to usenet were pretty much directly identifiable. In that case, a highly respected university professor posting to soc.support.transsexual, for instance, to discuss issues relating to gender confusion, was not something that such a person might see as conducive



to their career or stability in their personal and professional lives. Thus were born the 'anon servers'. These servers were primarily used to allow e-mail and usenet anonymity. The two were rather intertwined given the existence of various mail-to-news gateways for those with email access but no (or restricted) usenet service. In addition to providing remailer anonymizing services, various sites also acted as unrestricted usenet servers. In order to get around restrictions placed on university or company servers (which frequently did not carry the recreational or alternate (rec and alt) hierarchies, or did not carry the sex-related groups in those hierarchies), users simply had to point their news programs at the remote servers instead of their local one. The end-to-end architecture of the Internet allowed such redirection with little interference before the introduction of strong firewalling operations in response to the explosion of the number of Internet sites and the prevalence of viruses and other attacks. Today, of course, commercial ISPs carry all the newsgroups with legal content and few in Western democracies rely solely on their work or university for access, removing much of the widespread desire for the anonymizing services simply to access sexual material online. Anonymizing services still exist, however (see Chapter 4).

## Online Sex and Real Relationships

A recent report by Divorce Online ([www.divorce-online.co.uk](http://www.divorce-online.co.uk)), an online information service about divorce matters in the United Kingdom, indicated that online activities formed a significant part of the petition for a divorce in at least half of cases. The primary activities cited were infidelity with someone the partner had met online or excessive use of pornography downloaded from the Internet. Other possibilities include 'addicted' levels of use of online chat rooms or games. The interesting aspect to note here is not that online activities are causing the breakdown of marriages, but that online activity has become so integral to daily life that it is being cited as the route to activities leading to divorce. As with much else, it is likely that much (or even all) of this activity would take place without Internet access, but Internet access is now the primary route. As mentioned above, however, the 'apparent anonymity' of Internet pornography use and the ease of

finding people with similar interests online might be leading to people 'escaping' marital problems with online activities rather than attempting to work them out. Thus, some might see Internet access as responsible for the breakdown of social order in some way. Others see it as an empowering technology 'saving' people from continuing with failed relationships they have no means of escaping. Whether as a user or a provider of these services, it is for individuals to decide their own viewpoint in the light of their morals. Further developments in this area are likely and society will continue to develop mechanisms for dealing with the effects.

### **The Future of Online Sex: TeleDildonics?**

In his 1991 book *Virtual Reality*, Howard Rheingold considered the way forward. Virtual reality is still mostly a dream more than a decade later and the haptic (physical sensation) interface is still quite rare and primitive. His book is still regarded as a seminal work, however, and his term 'teledildonics' is still an interesting concept.

While we do not subscribe to the view that technological and networking development is primarily driven by sex, it is undoubtedly a factor. Demand for broadband access is being driven by the desire for video on demand, and some of that demand is for 'anonymous' access to a variety of blue material. When suitable haptic devices become available, will we see the online chat rooms and live videocams of the sex industry move across into 'virtual touch'? How will governments react to this development? Will it be regarded as a way to discourage physical prostitution and thus be gently encouraged, or will more puritanical views hold sway, and the practice of virtual prostitution be outlawed alongside its real-world counterpart in some countries? It is difficult to say, but it is certain that whatever developments do emerge, some people will see a way to use them for sexual gratification, and others will try to use that as a means to make money.

It is already the case that many people are engaging in what is called 'cybersex' by some, which involves (mostly textual, sometimes webcam-based) interactions describing actions and feelings, usually accompanied by masturbation on one or both ends of the connection. This is little different to similar activities involving

telephones except that (as usual with the Internet) there are a wider range of both professional and ordinary people available to engage with.

Teledildonics: the use of virtual reality and haptic interfaces to enable remote sexual contact

## REGULATING SEX IN CYBERSPACE

In this section, we consider the general question of regulating sexual content on the Internet at all, not how and whether to distinguish between types of user. In particular, there is the separate question of children using the Internet (see the next section). In the offline world, the debate about sexual material has been raging for centuries, possibly even millennia. A combination of social normative pressure and legal restrictions on publishing formed the background to an ebb and flow of availability and censorship of material. Few attempts are being made in the Western democracies to restrict access to online pornographic material. For instance, despite restricting the commercial import and distribution of so-called 'hardcore' material (including the US version of Playboy, for instance), for many years the UK government has made no serious attempt to block such material from being downloaded into the United Kingdom. Modern efforts at censorship of material are still primarily aimed at broadcast providers, where the UK government has straightforward regulatory control, rather than attempting to control the international and widespread providers of material previously banned. The United Kingdom has an interesting status in that the possession of the material itself is not illegal, rather it is the distribution which is banned. Thus while the United Kingdom may not play host to sites serving hardcore material, the surfers who download this material are breaking no law and the social anonymity they enjoy avoids any normative backlash either. The architecture of the Internet and the worldwide credit-card system allow access to a worldwide market.

Censoring the Internet, even for text material, is quite difficult (see Chapter 4). The relatively strong encryption built into modern web browsers to encourage confidence in online commerce, means that it may not be possible for governments to monitor the content of downloaded material. There have been attempts by various ISPs to restrict the language used in textual transmissions, although this can be rather hit-and-miss. For instance, when Genie tried to ban some words from their email and discussion areas they found that their large community of Vietnamese-speaking users were unduly hit since the two-letter encoding system that had been developed to represent Vietnamese characters included the pairs 'it' and 'sh', often juxtaposed. Automated systems for scanning textual communications are possible, but the sheer amount of transmission is likely to overwhelm even the best funded of these.

Automated scanning of binary material is even more difficult, even if actual material being transmitted is not encrypted. The monitoring system must be able to identify the format of a binary transmission (a gif, a jpeg, a tiff, a gzipped tarball or a zipped archive) and then it must be able to quickly and automatically 'scan' the file to see if it is sexual material which violates local law, currently an almost impossible proposition. Just as China is attempting to block access to 'subversive' textual information, so Saudi Arabia is attempting to block access to sexual material. The tools for 'The Great Firewall of China' and the access restrictions in Saudi Arabia are being developed both in-house and elsewhere. It is rather ironic that some of the same people who decried the US government for their attempts to block exportation of encryption code in the 1990s are now protesting against the export of monitoring and blocking software to repressive regimes. While the Internet retains its dual nature of an end-to-end architecture running on concentrated expensive physical international and national backbones, it is difficult to predict which way the see-saw will tilt. However, most governments have realized that they cannot control everything on the Internet and they are placing their monitoring and restricting resources where they believe they are most needed. In the Western world, this is seen to be protecting children, whereas elsewhere it may be preventing anyone from accessing sexual material or 'dangerous' concepts such as democratic freedoms.

## Ethics vs Professionalism

There are a significant number of web sites which offer sexual material online. Many of these are substantial companies with large sites including significant security measures to ensure that only paying customers get access to the databases of still images and digital movies. This means that such sites require system administration services, either by employing people directly or by buying in services from professional administration companies. Neither the British Computer Society (BCS) nor the Association for Computing Machinery (ACM) codes of conduct and practice (see Chapter 10) give any advice on whether working directly for a sex site or for a company that supports their activities is consistent with professional conduct. Provided the material is legal in the jurisdiction from which it is offered, the codes would suggest there is no problem. Are there other concerns that should come into play, however? Some would suggest there are.

- It is often alleged that all sexual material is degrading and that involvement in its production, publication or distribution degrades the integrity of the people involved.
- There are risks involved since it is possible some of the material hosted may be illegal.
- Material sourced from other countries may be being produced under duress.
- There are persistent rumours that many online sex sites are used for money-laundering purposes due to the high volume of transactions and the worldwide nature of the business.
- What is legal in the jurisdiction in which one works may be illegal elsewhere and allowing downloads by customers in those countries may be a crime there.
- It is argued that free availability of sexual material is healthy and reduces sexual crime.

- It is a lucrative business and therefore may pay very well.
- Would you be happy explaining to your parents what the company you work for does?

Similar concerns are raised in a number of other areas of business (the weapons industry, for instance) and should be kept in mind when considering jobs.

## **NOT IN FRONT OF THE CHILDREN: PROTECTING CHILDREN FROM SEX ONLINE**

So far, this chapter has focused on the activities of consenting adults, both as the receivers and the subjects of sexual material available technologically. In these last two sections, we consider the problem of children's involvement, either as receivers or as subjects. In this section, we focus on the question of children with Internet access. The final section deals with the even more sensitive issue of child pornography.

The Internet is seen by many parents and educators as a wonderful tool to expand their children's minds. Against the violence and mindless activity offered by computer games (as some people see it), the availability of so much information and interactive possibilities seemed a blessing. However, not all material available online is necessarily suitable for children or so most parents believe. There are a few who argue that nothing should be kept away from children and that 'if they're old enough to ask the question and understand the answer' then they should be able to access the information. However, most people in the West, apparently including most politicians, believe that it is appropriate not to expose children to concepts they are not ready for, to avoid confusing them. We do not attempt to enter into this argument here, we merely consider this majority view that validates attempts to restrict access and see where these attempts lead us.

## Restricting Access to Broadcast Media

Films, television and (to a lesser extent) radio all have to deal with the issue of material deemed unsuitable for some age ranges. For films, this led to a rating system which differed between countries in its considerations but was fairly uniform in its method of policing: since cinemas are, generally, ordinary commercial premises, often needing a license of some sort from a local jurisdiction to operate as an entertainment provider, the requirement to police access to films based on their rating was passed on to the film theatre. This form of self-regulation is interesting, since the commercial operation would tend to militate against imposing audience access restrictions which lower profits (a market force). However, the forces of social norms, law and architecture push cinemas in the other direction, since allowing too many minors into adult movies may lead to public opprobrium, including boycotts particularly by parents, to a withdrawal of the license to operate, or to distributors not providing films due to public pressure to keep the rating system working. Thus the film-rating system, a combination of law and self-regulation, has mostly worked for decades. It has kept up with public attitudes to a great extent, and although there have been times when the ratings offices have been out of step with public opinion, the system has had sufficient flexibility to allow it to cope.

The issue of television and radio was more difficult. As with Internet access, viewing of television and listening to the radio mostly took place within private homes. A different compromise was reached with television in the United Kingdom, with the concept of a watershed, sometimes coupled with audio-visual warnings. Anything shown before 9pm is expected to be suitable for children; after 9pm, it is not quite 'anything goes' immediately, but a sliding scale of more 'adult' material being shown much later was adopted. Again, this system is far from perfect but, given the constraints of society wishing to allow adult-oriented entertainment but allowing children freedom to watch and listen, led to a suitable compromise. The implementation of this system has been primarily by a complex of legal and social pressures, with some market influence. Attempts to introduce architectural restrictions have been very limited, primarily to two attempts. The first was the

V-chip technology which was supposed to implant television sets with a sub-channel identifier which would prevent viewing of programs with adult content unless a PIN was entered. The extra cost imposed on both purchasers and broadcasters seems to have killed this idea, showing that without legal mandate the market often overrules architectural restrictions. The second is a similar method based on the set-top box for digital satellite broadcasts in the United Kingdom, which include some PIN entry to allow parents to restrict viewing access based on broadcast information about classification. Without the legal requirements imposed on cinemas, this is limited to social demand and only followed by the larger broadcasters such as BSkyB and the re-broadcast terrestrial channels. The fact that the capabilities of the set-top boxes generally are sufficient for this to be a very low cost addition, seems to make the difference from the V-chip's failure.

V-chip: an embedded part of new televisions and other broadcast reception equipment allowing age restrictions as to what may be watched, depending on the classification of the broadcaster

## Surfing to a Naked Beach

We now turn to access to sexual material online and address the separate issues of inadvertent and deliberate access by children to unsuitable material. There have been some efforts by parts of the online sex industry to self-regulate against both types of access.

Following (Elmer-Dewitt 1995), the first of a series of laws was passed in the United States attempting to force architectural changes to the Internet in an effort to protect children from either inadvertently or deliberately accessing sexual material. The Communications Decency Act (CDA) was struck down in 1997 following the Supreme Court's decision in *ACLU (American Civil Liberties Union) vs Reno*. The court ruled that attempting to censor online material that is lawful conflicts with the First Amendment to the US Constitution which grants freedom of speech.



In 1996, a portion of the online sex industry did attempt to self-regulate, partly in response to the threat of action under the CDA, but also to protect themselves against further legal restrictions on their activities. The method they chose was to require a valid credit card number from a consumer, even in cases where there was no charge for the service being offered. The principle was that the credit-card system was the only suitable identification system in place which could be used in this way. However, there are two problems with this attempt at self-regulation. First, not all providers of online sexual material took part and indeed, since many of the purveyors were not based in the United States, there was little reason for them to do so. Secondly, even for those taking part, the system itself was far from perfect in two ways: children may well have access to their parents' details and there was no further authentication in the system, particularly where no payment was taken; and many legitimate adult users either did not have a credit card or did not wish to give that information out, in case charges were made which they would then have to query. This lack of trust in the system completely undermined it and given the lack of universality it was later dropped by most as an authentication mechanism, though it remains the most common payment method. However, self-regulation is not completely dead and there are two other self-regulatory systems we must consider: pre-loading warning messages and ratings systems. First, however, we follow the succession of legal wranglings in the United States following the overturn of the CDA.

In 1998, the US Congress passed the Child Online Protection Act (COPA) in an attempt to impose similar restrictions to the CDA but taking into account the court ruling in 1997 on the unconstitutionality of the CDA. Once again the ACLU – together with two similar organizations dedicated to online issues: Electronic Privacy information Centre (EPIC) and the Electronic Frontier Foundation (EFF) – challenged the new law and succeeded in having it overturned. This was followed by yet another attempt with Children's Internet Protection Act (CIPA, also referred to as CHIPA) and by other tacks such as restricting federal funding of libraries to those where restrictions are 'voluntarily' placed on Internet access to prevent access to sexual material.

In addition to the 'adult free speech' issue, the courts have also considered the fallibility of filtering and other censorship mechanisms. Studies have shown that filtering mechanisms suffer substantially from both false positives and false negatives. False positives, where non-sexual material is blocked, most commonly occur when dealing with health issues. False negatives are where sexual material is passed though without detection. While the imperfect nature of censorship methods such as film ratings have been accepted by the courts, the evidence of false positives blocking important health information combine with the high level of false negatives allowing substantial amounts of material through, has mostly led to the discrediting of such schemes in the current architectural setting of the Internet. Separately to the constantly overturned laws such as CDA and COPA, the federal funding of libraries is still a live issue and nowhere near as clear-cut, particular with the softening of the system to allow authenticated adults to request the removal of filters. A recent new twist, however, has led to some library workers complaining of the effect of constantly being subjected to patrons' use of library Internet access to view sexual material.

Now we return to the self-regulation schemes used by some of the online sexual material providers. First, we consider the 'warning page' approach. This has a number of possible technical implementations but the basic premise is that before entering a site containing sexual material deemed unsuitable for minors a page is displayed which contains no such material, but only a warning that the site contains such material. A positive step, often displayed as an 'I am over 18 and my viewing of such material is legal in my physical location' link to select, is required of the user. Sometimes a separate link for 'I am under 18' is displayed which redirects the user to an innocuous site such as a children's television channel or a search engine.

The other main avenue for self-regulation is the Platform for Internet Content Selections (PICS). The concept is quite simple and is technically feasible to implement. However, there remain problems. The biggest problems are that of differing perspectives as to what should be filtered and where to perform the filtration. For instance, lesbian and gay support and political lobbying groups feel

that information on sexuality should be freely available to teens, with frank discussions. More conservative elements of society view this as 'promoting deviance' and wish to suppress it. In the United Kingdom, for instance a law banning 'promotion' of 'alternative sexuality' in schools has long been a contentious issue. In Malaysia, images of women in health pamphlets promoting breast-feeding as a way to improve infant health were unacceptable. If a filtering system is available, should upstream providers filter things out entirely from certain portions of the Internet (educational establishments, for instance)? In writing this book (and particularly this chapter) for example, the authors have of necessity had to access material of a sexual nature online, in order to verify the information provided. Since the authors are based at a UK University, their Internet access at work is provided via the joint academic network (JANET), the UK educational Internet service. Personal viewing of sexual material via JANET is prohibited under the terms and conditions. Academic freedom, however, requires that researchers' legitimate access not be denied. With an architecture that identifies material as sexual in nature, some might feel that JANET should entirely block access. Such are the difficulties involved even in this simple idea of self-identification and self-regulation.

Platform for Internet Content Selection (PICS): a voluntary ratings system for web sites used by ISPs and computer-based restriction on the availability of material to certain users

### **'Satisfy Her in Bed': Sex Spam to Minors**

As has been mentioned in previous chapters, children's access to the Internet has increased markedly in recent years. Whereas few children had access initially, there were strong moves to provide many UK schools with access in the late 1990s. Libraries were also encouraged to provide access to the Web as a way of supplementing their printed matter, and home Internet access became not only

more common, but children were more likely to have their own computer (separate from a parental machine) and to have Internet access on it. As with all other aspects of raising children, the line between allowing them to grow and develop while keeping them safe raises questions about how (or whether) to supervise their Internet activity. The apparent freedom of online activity can be both a benefit and a danger. In the preceding section, we considered the active pursuit of information and the difficulties that presents in restricting children's access to material which is suitable for their developmental stage. In this section, we consider the passive receipt of unsuitable material.

The problem of spam is beginning to seriously undermine the utility of email as a communication medium for all (see Chapter 13). In terms of children, a recent study by Symantec ([www.symantec.com/press/2003/n030609a.html](http://www.symantec.com/press/2003/n030609a.html)) showed that a significant proportion of children were put off the use of email by the bombardment of sexual material. In some cases, this constant stream can harm their development and it is likely to cause an undue association of the Internet with sex. Particularly for adolescents, this association could well have the unfortunate consequence of deterring them from appropriate use of the Internet. Parental monitoring of children's communications is a difficult subject. While some parents do not feel it is unreasonable to open their children's letters or occasionally listen to their phone calls (with or without the child's knowledge), others feel it is a violation of the child's rights. In terms of email, children's groups generally recommend a 'light touch' monitoring of their online activities. Such a light touch in phone usage might be checking the phone bill for premium-rate service usage, number and frequency of calls to specific numbers and so on.

In terms of Internet use, this can be a little more problematic. Frequently, parents have less understanding of the working of the technology than the children themselves do. In addition, the end-to-end nature of the Internet can make monitoring highly difficult, as has been mentioned before. Attempting to ban use of certain technologies is often pointless since there are often other means to the same end. Close communication between parents and children is coming to be seen as the primary way of protecting children online, together with suitable use of

'protective technology' such as spam filters designed to keep inappropriate material out of their inboxes.

## Online Friendships

One of the interesting things about the Internet is best summed up by the New Yorker cartoon with the caption 'On the Internet no one knows you're a dog'. The text-oriented nature of much of the Internet allows one to hide one's gender, age or disability. This is seen by many as one of the 'great levellers' of the age, particularly in regard to disabilities or physical variances (being overweight, very short or of a particular ethnic group). In addition to the question of lack of social and physical context to textual material, however, there is also the difficulty that some will abuse this apparent anonymity. This is particularly distressing when considering contacts between children and adults pretending to be children.

There have been a number of cases where child molesters have befriended children online, frequently in web-based chat rooms. Often they pretend to be much younger than they are, frequently very close in age to the group they wish to prey upon, though that is not always the case. There have been enough documented cases where a molester has lured a child to a meeting to lead to public concern over the issue. In a number of cases, the child has avoided molestation either because they realized the problem as soon as the meeting occurred or a parent accompanied the child to an initial meeting and realized the problem. In these cases, however, it was difficult to press charges since no actual crime had taken place. This has led to attempts to introduce, in the United Kingdom, a new offence of 'online grooming'. This was included in the Sexual Offences Act 2003, which came into force on 1 May 2004. The new offence will have to be tested in court, and may well fall at the hurdle of 'reasonable doubt' since it rests on proving the intent of the adult to commit an offence. Where the online discussions include mentions of sexual activity this can probably be proved, but otherwise it might be difficult to show to the standard required in court.

The use of the Internet to perform this 'grooming' has received much attention in the press and has led (at least in part) to the formation in the United Kingdom

of the Child Exploitation and Online Protection Centre (CEOP, [www.ceop.gov.uk](http://www.ceop.gov.uk)) and the National High Tech Crime Unit ([www.nhtcu.org](http://www.nhtcu.org)), which supports the national crime and criminal information services and is now part of the Serious and Organised Crime Agency (SOCA). Similar groups exist in many other countries, including the Crimes Against Children section of the FBI.

These law-enforcement agencies' operations include officers pretending to be children or offering to arrange sex with children, in online communications in order to attract so-called 'predatory paedophiles'. A high-profile case in the United Kingdom saw Luke Sadowski convicted under existing laws of trying to procure a child under 16 years old for sex. On his arrest, he was found to be carrying a teddy bear, a pair of handcuffs and a replica handgun. Under the existing laws, however, Sadowski was given only an 18-month sentence and was not placed on the Sex Offenders' Register. The Sadowski case derived from cooperation between US and UK law enforcement officials engaged in attracting paedophiles to 'honey trap' web sites.

The public outrage over 'online grooming' masks the fact that these are only a small percentage of child abuse cases. In most cases, the victims of child abuse know the perpetrator well and online contact is, at most, a minor medium of communication in the crime, if present at all. Since online communications are still very new, society must of course monitor such abuse, but high-profile witch hunts against online activity may well be masking the real social problems already in existence, allowing society to feel as though it is tackling a problem while really it is only attacking a very small part of it. It is also possible that this focus on online grooming is masking the failure of authorities to tackle the much more widespread problem of the distribution of child pornography (see next section). The apparent anonymity of the Internet can also lead to difficulties in the reverse situation, of course, where an adult is fooled into thinking that their underage conversation partner is actually an adult. We consider this issue in the discussion topic on the Toby Studabaker case.

In September 2003, Microsoft made a surprise announcement that they were closing down the 'chatrooms' on their MSN online service. They claimed in press releases and interviews that this was because of concerns over children's

vulnerability in these forums. The previously free service has been replaced by a subscription service, allowing Microsoft to identify participants. The problem, of course, is that most children did not subscribe to MSN's new services but moved across to other, still-free services. Many commentators have ascribed Microsoft's move solely or primarily to the fact that MSN continues to lose money for its parent corporation, a decade after it was launched. The fact that MSN Israel, which outsources the chatroom operations at no cost, maintains a free service lends some credence to this view.

## CHILD PORNOGRAPHY

As with the attempt to define 'pornography' earlier, what at first appears to be a simple exercise becomes fraught with difficulty when the details are considered. Freedom of speech (as exercised in the Western world, this includes all forms of communication, not just spoken or written words) conflicts with other values: the protection of children, the revulsion of the majority against sexual depictions of children, strict views on nudity and so on.

It might seem simple to define child pornography legally and to enforce it. After all, most cultures regard sexual activity involving children as abnormal and highly damaging to the child. Cultural norms see child abuse, particularly sexual abuse, as one of the worst crimes possible. Thus we have laws against the sexual abuse of children in most countries. Most of the Western world has long had a concept of 'age of consent' and sex with someone under that age is regarded as a serious crime. However, there are difficulties involved. Teenagers frequently indulge in sexual activity where both participants are below the age of consent. Some countries have different ages for males and females or for heterosexual or homosexual activity, such laws sometimes conflicting with other laws on equality of the genders and of those of various sexual persuasions. Other countries do not have an 'age of consent'; for instance, until 1999 there was no such concept in Japanese law. Since then Japanese law specifies 13 as the age at which consent to sexual activity may be regarded as possible. This differs considerably from the

'age of majority' in Japan (20) which itself differs from the age at which one is considered no longer a child (18). Countries not including an 'age of consent' rely on the general laws about rape, which includes any form of duress, including the purely psychological. The younger the person involved the more likely it is that sexual activity is regarded as having been performed under duress. Of course, the age difference is also taken into account in such cases, and laws concerning sexual activity between minors differ vastly as well. Laws differ between states in the United States as to age of consent and also differ depending on marital status, as do laws in Middle Eastern or Indian sub-continent countries. This is all to show that even the concept of 'sexual abuse of children' is not universal in the details of its application.

## **Types of Material**

Just as there is a variety of general sexual material available online, so there is a variety of material which some people would consider child pornography. Various countries draw the line between legality and illegality of such material at different points. We first give a list of the material to be considered in this section including some analysis of the openness with which such material is available and then consider the arguments regarding where the line should be drawn and where it is drawn in various places.

### **Text descriptions**

These are freely available on web sites and usenet newsgroups. The sub-culture involved commonly cloaks itself under the term 'incest' and although mixed with textual descriptions of incestual relations between consenting adults, much of the material is about sexual activity between adults and children or between children and children, sometime but not always incestual. A whole nomenclature of categorizations has been developed for usenet articles on the groups dedicated to this topic, to allow readers to search for their particularly desired material. In much of the Western world, at least, such material is not only legal, but protected by law as free speech, despite its textual depiction of acts otherwise deemed illegal



and the distaste with which such material is regarded by much of the population. In certain jurisdictions, however, such as the Republic of Ireland and Australia, such textual depictions are illegal.

### **Created images**

These are images created from scratch but which apparently involve children in sexual activity or 'sexually provocative' positions. The status of using underage models to produce such material is a different discussion which is not covered here. As computer-graphics platforms become ever more sophisticated, it becomes more and more difficult to distinguish between 'created art', 'photographed reality' and 'altered photography'.

### **Altered images**

Just as modern graphics programs allow for the creation of apparent child pornography so they also allow for the manipulation of pictures of a sexual nature to make it appear as if children are involved. Even more so than with created imagery, the source of such material can be difficult to judge. A recent attempt to amend US law to classify such images as illegal failed with the judgement that the justification for outlawing sexual images of children was that only the original act of abuse necessary to produce the pictures renders them unprotected speech under the constitution. Since no act of abuse is necessary to produce an altered or created image, there is no constitutional justification for outlawing them. However, in the United Kingdom, such images are deemed child pornography. In a case reported in *The Times* in August 2006 ([technology.timesonline.co.uk/article/0,,20411-2306067,00.html](http://technology.timesonline.co.uk/article/0,,20411-2306067,00.html)), computer software was used to alter images of adult pornography so that the models appeared under age.

### **Non-sexual images**

Just as 'pornography' might be regarded as 'in the eye of the beholder', so might child pornography in some cases. A court in the United States (*US v Knox 1993*) convicted a man of maintaining a collection of child pornography simply for having

photographs of children in public places in bathing suits, and so on. The judge ruled that the 'emphasis on the pubic regions' and various other aspects of the collection meant that the intent of the photographer was sexual in nature despite the photographs being of public activity.

Nude pictures of infants are quite common in family albums and even shown on television and billboard adverts, yet usually these are not seen as child pornography, although a photography student at a UK college was arrested when having a photographic development laboratory develop a series of shots of her four-year-old son naked for a college project. Various 'art books' showing photos of naked children are freely available, although sometimes these can lead to controversy, such as the cases of Sally Mann and Tierney Gearon. Sally Mann is an art photographer whose work includes nude depictions of children, both her own and other models. Her work has consistently raised controversy, including issues of artistic freedom and freedom of speech. It should be noted that her work was not published in book form until the children were all adults and they were consulted about (and gave permission for) publication. In March 2001, the UK police raided a Saatchi gallery exhibition which included pictures of Gearon's children (aged six and four) photographed playing naked. The BBC coverage of the exhibition included small online versions of some of the photographs, including one of the two photographs alleged to be illegal. Other less celebrated cases of photography students using their own children for nude studies have also raised controversy.

Finally on this topic, there is the issue of naturism: the practice of going about daily activities naked. Although a minority pursuit, this is a family activity and is legal in many jurisdictions in the Western world, albeit usually restricted to specific places. Since it is regarded (literally) as natural by the practitioners, taking pictures during activities is also regarded as natural, even where child naturists are involved. Such 'naturist' pictures are the source of some images distributed across the Internet and may even be protected speech in the United States on the same grounds as 'altered images', although the Knox decision indicates that a collection of pictures focussing on children would be regarded as illegal. Magazines showing such child-naturist pictures are sold openly in some European countries such as Germany and the Netherlands.

### **Sexual images**

Images of children in positions where the sexual intent of the photograph is undeniable or where the pictures are of children involved in sexual activity are the most extreme case. They are illegal in almost all jurisdictions, although the level of enforcement is highly variable. In some places, the laws have been passed simply to appease powerful foreign entities such as the United States and Europe, but then local enforcement is sketchy at best and non-existent at worst. Local law enforcement may be under-funded, may regard child pornography as secondary to the abuse of children, on which they focus their resources, or they may resent the interference of foreign countries in local affairs and social norms.

Such images may also be sub-categorized as to the severity of actions depicted as in the five-point scale adopted by the UK Court of Appeal for considering sentencing issues for those convicted of possessing child pornography images.

### **Operation Ore**

While there have been a number of high-profile, online, child-pornography distribution cases since the early 1990s, the most widely reported one in the United Kingdom is 'Operation Ore' ([news.bbc.co.uk/1/hi/uk/2652465.stm](http://news.bbc.co.uk/1/hi/uk/2652465.stm)) in 2003. Operation Ore started with an earlier case, Operation Avalanche ([news.bbc.co.uk/1/hi/uk/2445065.stm](http://news.bbc.co.uk/1/hi/uk/2445065.stm)), in the United States. Landslide Promotions was the name of a gateway site which provided separate authentication operations to allow charging for access to servers offering child pornography. The operators of Landslide, Thomas and Janice Reedy, also maintained some of the sites accessible via the gateway, using servers situated in countries as widely spread as Russia and Indonesia. In addition to building a case against Thomas Reedy (sentenced to 1335 years for distributing child pornography, among other related offences), Operation Avalanche led to the credit card details of some 250 000 subscribers to the gateway service being recovered from Reedy's computers and financial records. The follow-up operation by UK police into those who had paid for

access via the Landslide Gateway was named Operation Ore. Over 7000 individuals were on the list. Police reported that they were overwhelmed with trying to deal with the investigation. Other countries whose police have reported difficulty in coping with the huge number of reports deriving from Operation Avalanche include Canada and Australia.

The presence of a credit-card charge made by the company is not necessarily proof that the credit-card holder had signed up for access through Landslide Promotions. Credit-card fraud is another potential explanation. Although the investigations by UK police have led to arrests and prosecutions of some for possession of child pornography, many others have been found to have no illicit material on their computers. The pressure of even being accused of such a crime has led to the suicide of a number of suspects ([www.theregister.co.uk/2004/12/21/child\\_porn\\_suicide\\_shame](http://www.theregister.co.uk/2004/12/21/child_porn_suicide_shame)).

## Prohibition, Harm, Possession and Distribution

The debate about pornography in general centred for much of the 20th century on the effect on the consumer. The debate raged about whether viewing pornographic material (and associated sexual activity, whether auto-erotic or not), particularly 'violent' or 'degrading' material, led the consumer to be more likely to commit illegal acts themselves and on whether legal sanction for pornographic material was in itself degrading to the subjects (usually women). The final conclusion of many social scientists was that any negative effect was likely to be immeasurable for most, whereas in others the purging of violent fantasies was a healthy safety valve. Of course, these conclusions are not shared by all, particularly those who object to the material in and of itself and seek to justify its suppression by quoting any study showing negative effects.

It is interesting to note, however, that the issue of child pornography does not usually centre on this debate, although the issue of altered or created images

is beginning to bring it to the fore. It is generally expected that adult images are of consenting (and usually paid) adults. Ignoring the possibilities of economic necessity or 'social duress', this means that the material is produced 'ethically' and so long as no substantial harm derives from the viewing, then modern law has no basis on which to ban the material. In the case of child pornography, however, the opposite assumption is made about the circumstances of its production. Indeed, even the very fact of further distribution is a source of continued distress to the victims whose images circulate.

However, reports of how consumers and distributors of child pornography operate, such as those in (Jenkins 2001), do lead to a very difficult ethical dilemma. Since possession of child pornography is in itself a very serious crime, there is a 'prohibition economy' around its circulation. Such prohibition economies are well-studied in the areas of ordinary pornography, alcohol prohibition in the United States in the 1930s and 'recreational narcotic' usage from the 1950s onwards. In addition to the marked increase in the price that can be gained for illicit materials (thus providing an incentive for those with a criminal bent to focus on such lucrative possibilities), the online distribution of child pornography demonstrates a probably unexpected and wholly dismaying aspect. Those with existing large collections or those engaged in active production of new material will make material available, frequently through a number of levels of mis-direction and anonymity safeguards – see (Jenkins 2001) for details of the mechanisms though, fortunately, not the specific channels. However, the amount each distributes is very limited. Pure consumers on the discussion channels 'accompanying' the distribution channels who ask for further material are often encouraged to contribute something themselves. Thus, the prohibition, which leads to the difficulty of obtaining material, may itself be a mechanism for encouraging the abuse of children. This does not in any way excuse the consumer or producer, nor do the authors mean to imply that consumption of child pornography should be seen as a 'victimless crime' in itself, as many in the pro-drug-legalization community regard narcotic abuse. As has been mentioned, the continuing psychological effect of further distribution on those depicted in child pornography must be counted a crime. In the current social circumstances, however, it would appear that no debate is possible on the approach to child

pornography, given the extreme reaction of the mass of the public to the whole subject.

## **Jurisdictional Anomalies and Conflicts**

As mentioned above, child pornography is illegal in most jurisdictions today, although the definitions vary. As with other aspects of the law, there are times when internal contradictions are also apparent. For instance, despite the various ages of consent for sexual activity in different US states, the 1984 Child Protection Act defines a 'child' as any person under the age of 18 for these purposes. Thus, while in most places sex is legal from the age of 16 (and younger in various places under a variety of circumstances such as the age of the partner or the marital status of the couple), pictures of the sexual activity or even nude pictures of a sexually active person are still classed as pornographic. One example case (Jenkins 2001, page 36) is of a 24-year-old male convicted of possession of child pornography for having nude photographs of his 17-year-old girlfriend, with whom he had legally been having sexual relations. The high age of the definition of 'child' in this case strongly conflicts with the law in other jurisdictions. In the United Kingdom, for instance, one of the daily newspapers has contained photographs of topless models for decades. Following UK law, these models had to be at least 16 years old. The United Kingdom's Sexual Offences Act 2003 redefined this age limit and made the change retroactive such that possessing older copies of the newspaper could now be regarded as possession of child pornography. One wonders how the United Kingdom's copyright-deposit libraries have dealt with this issue and, indeed, the publishers who (it is assumed) retain an archive of the papers and probably the original submitted photographs. Under US law, the UK newspaper was creating and distributing child pornography from 1984. It is no surprise that this newspaper is not distributed by airlines flying to the United States. There does not, however, appear to have been any attempt by the online version of the newspaper to restrict their models to over-18s, nor was there a warning about the age of some of the models. Thus a US citizen could easily unwittingly be guilty of downloading material illegal in the United States from an apparently legitimate source. Such are

the difficulties posed by the poor semantic labelling on the Internet combined with cross-border access and variable jurisdictional statutes.

## Discovery, Defence and Mitigation

Despite the public horror at the crime of possession of child pornography, the law is not always an ass in these circumstances, even when an accused acts in a way that most would find incomprehensibly naive at best. There are some recent cases in the United Kingdom that deserve mention. Firstly, we have the case of a teenager (under 18) in the North East of England who was identified by police as having downloaded large amounts of child pornography. The case was proven quite easily but in sentencing the judge took account of the age of the offender and his plea that his sexual curiosity had led him to the illegal material through obvious links rather than through deliberate and sustained searching. In keeping with this the judge refrained from incarceration, insisting on therapeutic intervention and placing the boy's name on the Sex Offenders' Register for a substantial period, meaning that any further sexual offences would lead to a harsher sentence and to loss of certain other liberties including some travel restrictions and barring him from certain jobs and voluntary work involving children.

Next we have a couple of high-profile cases involving pop stars. Gary Glitter was convicted of possession of child pornography after submitting his computer to a repair shop. During their work they discovered the material on his hard drive. Pete Townsend was arrested as part of Operation Ore. He claimed to have been researching the topic for a book on the subject and was not convicted of possession.

Finally, we have the case of the 'trojan' storing child pornography of which the computer owner was unaware. Since many computers owners are unaware of the presence of remotely controlled programs on their machines, such programs often being used for distributed denial of service (DDOS) attacks (see Chapter 11), the judge in this case found that the owner was obviously not guilty of possessing or distributing child pornography. The publicity surrounding this case and the large number of virus attacks recently may make it more difficult for computer owners thus infected to claim complete innocence in the future. For a computer expert who

might be able to fake the requisite hard-drive configuration, this defence might also be unbelievable to a court.

Many jurisdictions distinguish between possessing child pornography and distributing it (as with drug laws). However, there are differences. The Paedophile Unit of the United Kingdom's National High Tech Crime Unit issued the following advice to the public, still available on numerous local police force web sites (e.g. [www.herts.police.uk/main/faqs.htm](http://www.herts.police.uk/main/faqs.htm)), about unwanted receipt of obscene material online:

*I have opened my email and it appears to be an indecent image of a child. What should I do?*

*The possession of indecent images of children is defined under Section 7 of the Protection of Children Act 1978 (as amended by Section 84 of the Criminal Justice and Public Order Act 1994). It is also an offence to manufacture, distribute or cause to be distributed such images and these include pseudo-images. These are all serious offences, which are subject of custodial sentences. In cases like this notify your local police or the Paedophile Unit who will advise you accordingly.*

*Can I just email you the image for you to look at?*

*No. This constitutes an offence of distribution to which there is no defence in law.*

*What should I do with the image then?*

*The image is obviously evidence of an offence and will be treated as such. Do not delete it but inform your local police. They will speak with you and take a written statement from you, which will produce this image as an exhibit. The image will be copied onto a disk, CD-ROM or made into a hard-copy print. It can then be deleted.*

*You should then contact your ISP and inform them about this and consider 'blocking' the sender's e-mail address using the facilities on your email account.*

*I don't get images but I get web site addresses which take me to sites involving children. What should I do?*