



AGE ASSURANCE AND ONLINE PORNOGRAPHY:

A SAFE AND SENSIBLE WAY TO PROTECT CHILDREN



Age Assurance and Online Pornography: A Safe and Sensible Way to Protect Children

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Introduction

In the physical, face-to-face world, many commercial enterprises are required to verify the age of customers to protect children from certain products and activities. Globally, minors are widely barred from buying age-inappropriate items such as tobacco, alcohol, and certain pharmaceuticals, chemicals, and weapons. Most countries do not allow children to purchase property, sign legal contracts, vote, consent to medical treatment, file lawsuits, drive automobiles, or enter casinos and betting shops. These laws demonstrate a collective commitment to protecting the health and wellbeing of children.

But one industry that is demonstrably harmful to children¹ has escaped any similar legal requirement: online pornography. Few countries make any concerted effort to prevent children from accessing pornographic websites. In this way, society fails to translate the commonsense, health-based rules of everyday physical life into the digital environment.

In most countries where pornography is legal, it is nonetheless unlawful for minors to view pornography or for adults to provide youth with the means to access this content. But these regulations are rarely effective in the digital ecosystem since there is little-to-no enforcement. At the same time, few if any free or non-fee-paying pornography websites make any effort themselves to prevent viewing by children. The only reasonable conclusion is that the pornography industry intentionally and often illegally ‘grooms’ young people to ensure future revenues. For them, today’s kids are tomorrow’s paying customers. In reality, the self-described “adult industry” takes no reasonable steps to cater *only* to adults.

How many children are viewing pornography? A 2016 study found that “10% of the visitors to porn video sites are less than 10 years old” (*Bitdefender, 2016*). A 2021 survey in Hong Kong reported that 15% of respondents encountered porn before they were 9 years old (*Yau, 2021*). More recent data from the US showed that most kids were exposed to porn at 12 years old, but 15% were younger than aged 10 (*Robb & Mann, 2023*). And parents “consistently underestimated both sons’ and daughters’ exposure to and socialization from pornography” (*Wright et al., 2023*). Despite these alarming statistics, age gates, basically age-verification pages or pop-ups, are virtually nonexistent across the pornography industry.

In 2020, for a notable example, the British Board of Film Classification investigated the 200 most-popular pornography websites in the United Kingdom and found that only 4.5% of the sites “have existing mechanisms in place that may prevent, deter or delay

¹ For up-to-date, peer-reviewed scientific scholarship on the harms of pornography, see the Academic Library at the Culture Reframed website (<https://research.culturereframed.org/>) as well as previous research reports (<https://www.culturereframed.org/reports-about-the-harms-of-pornography/>).

children accessing the site before displaying any pornographic content” (*British Board of Film Classification, 2020*). These mechanisms typically include registering for an account or entering payment information – even though no actual payment may occur. At best, however, these measures “put a child off a particular site in favour of a more accessible one.” Moreover, while credit cards in the UK are restricted to adults aged 18 or over, none of the 200 websites required registration using a credit card before showing pornographic content. Debit cards, on the other hand, which are now ubiquitous among minors, were sufficient for registration. And while 14.5% of the sites did display the ‘pop-up’ warning that the website is intended for adults only, these warnings or self-declarations are easily dismissed by any child simply by clicking on the “I accept” or “I’m over 18” button.

Yet an efficient, safe, and effective mechanism exists for protecting minors against the harms of online pornography: age assurance. These apps and platforms can provide a suitable ‘gate’ that allows adults but not minors to view pornography websites. Several countries are currently moving with mandates for the pornography industry to implement age assurance. Many countries have passed relevant legislation; others are in the process of exploring laws or developing protocols. In this report, I provide an overview of the global legal landscape for age assurance. I also review the mechanisms of verification - how the task is accomplished.

There are two types of age assurance. One is “age verification,” whereby users effectively prove their age using a government-issued identification card or ID, such as a driver’s license or passport, together with a real-time ‘live selfie’ (combination snapshot and short video). When used properly, these systems have high levels of confidence. The other type of age assurance is called “age estimation.” Here, a platform utilizes artificial intelligence (AI) to estimate the age of the user through biometric—physical or physiological characteristics of a person—or behavioral data captured by a live selfie or short video. These AI-based systems are in a state of continuous development and also are approaching a high level of confidence.

Age assurance is an existing technology with international standards established by government agencies and trade organizations such as the Age Verification Providers Association (2023) and the Institute of Electrical and Electronics Engineers (*IEEE, 2021*). This multi-billion dollar market will continue to grow as more countries roll-out digital identities. There are dozens of commercial platforms available, many of which are collaborating with government agencies. Age assurance is increasingly important to the banking and financial sectors, especially in light of ‘know your customer’ (KYC) and anti-money laundering (AML) regulations. It is also fueled by public demand for increased ease in accessing online government and related services. All that is necessary to ensure that this technology is applied to pornography is sufficient political will.

Predictably, however, the pornography industry, which is typically valued at around \$100 billion (*Gitnux, 2023*), vehemently opposes age assurance as a threat to its lucrative

bottom-line. Online service providers also are wary for the same reason. But so was the automobile industry when first confronted about the need for seat belts, airbags, and other safety devices. Age assurance is also opposed by libertarian-minded ‘digital rights’ groups, which are prone to panicked hyperbole since many countries and the European Union now have in place well-crafted data protection laws.

It is also important to flag concerns about hacking, misuse, and identity theft as well as blackmail and harassment if bad actors or repressive regimes connect particular users – say, sexual minorities in countries with discriminatory laws – to specific pornographic websites or videos. But these are not insurmountable problems. Nor are they specific to age assurance. These platforms are no less safe than online banking or modern passport control at Logan and Heathrow airports. There is nothing particularly novel, scary, or unjust about asking adults to verify their age before clicking on Pornhub.

Background

To investigate age assurance globally, it is necessary first to exclude countries where pornography is illegal. Countries that criminalize pornography for everybody will obviously not operationalize systems aimed at barring access by just to youth. Yet determining the legal status of pornography is not always a simple task. Relevant laws are often imprecise, outdated, or unavailable. In authoritarian regimes, moreover, the law is often a poor guide to on-the-ground reality, since authorities are prone to harnessing pornography laws to target political opponents, oppress sexual and gender minorities, and control free access to valid information.

Nonetheless, in June-July 2023, I made a good faith effort to investigate the legality of online pornography for personal or noncommercial use in each of the 193 member states of the United Nations as well as in 18 other countries.² Again, my focus was on the private use of online pornography—not production, promotion, dissemination, sharing, importing, selling, public display, etc. I also investigated only the legal status of pornography depicting adults (generally 18 and older). For five countries, I was unable to clearly ascertain the relevant law.³ Of the remaining 186 countries, which amounts to most of the world, the personal use of online pornography is illegal in 36 countries and legal in 150 countries. My investigation thus focused on the latter.

² I use the term ‘country’ loosely to avoid political entanglements. My review included Taiwan, Kosovo, Cook Islands, Niue, Puerto Rico, Martinique, New Caledonia, Guam, French Polynesia, US Virgin Islands, Bermuda, Northern Martinique, Greenland, American Samoa, British Virgin Islands, Anguilla, Tokelau, and the Federated States of Micronesia. I excluded the Vatican (too small) as well as Palestine. The latter is split into two governments, Hamas and the Palestinian Authority; the former blocks pornography, the latter does not. I also did not include various disputed territories (and names) such as Western Sahara, South Ossetia, Abkhazia, and Northern Cyprus.

³ Congo (former Zaire), Democratic Republic of Congo, Kyrgyzstan, Liberia, and Niger.

Of the 150 countries where it is legally permissible for individuals to view online pornography, how many have legislated, implemented, and enforced age assurance? Zero. At least 63 of the countries that legalize the personal viewing of online pornography do have some law on the books that restricts, or seemingly restricts, the sale or display of pornography to children and/or facilitating the access of pornography to minors (typically someone under the age of 18; in a few instances, younger). Yet how many of these countries require, implement, and enforce age assurance systems? Again, the answer is zero.

Most countries that permit the personal use of adult pornography prohibit the creation, sale, distribution, 'simple possession,' and often the mere viewing of child pornography, which is more properly called "child sexual exploitation material" (CSEM). Unfathomably, not all countries do so. Additionally, many countries ban what is variously labelled violent, nonconsensual, or extreme pornography as well as what they often call "obscenity," which typically includes bestiality and necrophilia. Admittedly, legal "obscenity" is rarely defined precisely. It is often, in some regimes, tied to vague notions of 'public morality' which may be harnessed not to the protection of children but to policing the public behavior of women and sexual minorities (*Fallon, 2014; Al Jazeera, 2021*). Some countries are more up front about the latter. They permit pornography but prohibit what they call "unnatural sex," or something similar, a concept rooted not in science but in the persecution of same-gender sexual relations, which is still criminalized in almost 70 countries (*BBC News, 2023*). To be sure, child sexual exploitation of any sort is reprehensible without qualification. It should never be legal. Likewise, pornography in general poses demonstrable harms to children, as noted above. But the use of pornography-related legislation to oppress a sexual or gender minority is also reprehensible.

The Canada Borders Services Agency (2018) offers a more reasoned approach to determining how to draw the line at inappropriate material. Their guidelines state: "According to the courts, material will generally fail the community standard of tolerance test if it portrays sex with violence, or if it portrays sex that is degrading or dehumanizing and the risk of harm is substantial." This material includes depictions of incest, necrophilia, bestiality, gagging, choking, beating, and kicking as well as urinating, defecating, and vomiting onto someone else during sexual activity. In Canada, all of this is illegal.

In Canada, too, the courts accept as legal pornography that displays "explicit sex that is either degrading or dehumanizing but which does not have a substantial risk of harm." Of course, as an article in *Vice* (Rohrlich, 2018) noted, the boundary between licit and illicit pornography is not always clear. The Canadian customs agency permitted the importation of "Daddy Made me a Mommy" but banned "Daddy I'm a Big Girl Now!" My point is not to enter this debate. Rather, I want to suggest that the great advantage of age verification laws is that they ensure that children are not exposed to any pornography, regardless of how one may split hairs over what is and is not violent, degrading, and dehumanizing. It

is one thing for adults to quibble over these definitions. It is altogether different to allow children to access this material while the adults are arguing.

Yet that is exactly what is happening. For as I have shown, no country in the world today mandates, oversees, and enforces an age verification or age estimation system for online pornography. Nevertheless, a number of countries are moving, or considering moving, in that direction. We can cluster these countries into six categories:

- I. Countries that have passed laws *requiring* some form of age assurance but have *not implemented* this legislation (Philippines, France, Germany, South Africa).
- II. Countries with existing laws that *could be interpreted* as requiring age assurance systems (Spain, Luxembourg, Romania).
- III. Countries that are *developing the details* of possible age verification (Australia).
- IV. Countries with legislative bills or proposals on age assurance currently *pending or introduced* (Slovakia, Canada, UK, Switzerland).
- V. Countries that have *hosted recent governmental discussions* at one level or another about age assurance (Denmark, Italy, Ireland, New Zealand, Poland, India, Russian Federation). This section also includes discussion about the European Union.
- VI. United States. I consider the US to be its own category since it has a complex system of federal and state laws. At present, seven states have passed laws on age assurance, another two have introduced bills, and efforts in 12 states have failed or otherwise expired. Four states also have bills pending to require pornography blocks on new mobile devices. In the bulk of this paper, I discuss each of these categories in turn.

At present, to repeat, no country legally requires, oversees, and enforces age assurance. As such, the world is effectively divided into countries that block pornography and those that do not. Many, if not all, the governments among the former also block valid sources of online information. Thus, the censoring of pornography is part of a wider government effort to control the citizenry. These countries include Afghanistan, Algeria, Bahrain, China, Gambia, Indonesia, Iran, Kuwait, Laos, Malawi, Myanmar, Mali, Nigeria, Pakistan, Sudan, UAE, and more, all of which impose restrictions on the free exchange of online information. This censorship is often conducted under the aegis of religious authorities. This is not a viable or democratic solution to the problem of children accessing pornography.

It also is not viable, and no less dangerous, to allow the pornography industry free reign to market their products to children. This is not to say that countries that permit online pornography are immune from wider forms of online censorship. It is to say that the inability to regulate pornography so that it is consumed only by adults has proven to be a failure. It is time for pornography to join other age-appropriate products—from alcohol and gambling to banking, voting, and property ownership— and require proof of age in order to consume the product.

Countries that Require but have not Implemented Age Assurance.

Four countries have passed legislation that calls for the use of age assurance systems for websites that host pornography: Philippines, France, Germany, and South Africa. But for one or another reasons, these initiatives have stalled.

Philippines

In many ways, the Philippines has the clearest law to date on age assurance. In February 2021, Senator Risa Hontiveros, Chair of the Senate Committee on Women, Children, Family Relations and Gender Equality, introduced a bill, “Special Protection Against Online Sexual Abuse and Exploitation of Children (OSAEC) Law.” The bill was revised and reintroduced in May 2021, now with a provision for mandatory age verification. The bill was unanimously passed by the Senate, approved by the House of Representatives, and enacted into law in July 2022 (*Philippines, Rep. Act No. 11930*).⁴

Section 35 of the law states that “All online providers of adult content shall be required to adopt an anonymous age verification process before granting access to adult content.” The implementing rules and regulations of the act were signed by the Secretary of the Departments of Social Welfare and Development and the Secretary of Justice in May 2023 (*De Layola, 2023; Philippines, Rules, 2023*). The rules and regulations for the age verification process are scheduled to be released no later than January 2024.

France

The French criminal code (*France, Art. 227-24*) makes it illegal to disseminate pornographic images to minors. The statute was amended in July 2020 since the older law was not applied to the digital ecosystem (*France, Art. 23; Braun & Kayali, 2020*). The revision empowers the government to block websites that fail to prevent minors from

⁴ All cited laws and legislation are listed in a separate bibliography, organized by country, and formatted for easy reference by a non-specialist.

viewing online pornography within 15 days upon notification. The revision did not, however, specify a mechanism of age verification. The text noted that age identification mechanisms are currently available in the country that use payment cards, which include credit cards, as well as the FranceConnect national ID used to access government services. Other systems use banking records, phone bills, and more, but the choice of the mechanism was left to the discretion of each website. The amendment clearly stated that asking viewers to click on a button to certify that they are adults is not legally sufficient.

There was no effort to enforce the 2020 age verification amendment. A presidential decree in October 2021 authorized the French audiovisual regulator (Conseil Supérieur de l'Audiovisuel or CSA) to sanction companies that do not comply, and even to block them with a court order. The CSA failed to exercise its new powers, and the law remained dormant.

In December 2021, under pressure from organizations such as StopAuPorno,⁵ the CSA finally threatened to block five websites if they did not bar minors (*Conseil supérieur de l'audiovisuel, 2021*). The sites were Pornhub, XVideos, Xnxx, xHamster, and TuKif.⁶ In January 2022, the CSA and another government body merged to create Arcom, The Audiovisual and Digital Communication Regulatory Authority (l'Autorité de régulation de la communication audiovisuelle et numérique). A few months later, Arcom asked a court to block pornographic websites that failed to uphold the 2020 amendment, including the five aforementioned sites which made a farcical attempt to satisfy the law by asking users to click a cursory 'I'm-over-18' checkbox.

In September 2022, the court ordered mediation between the parties to resolve the conflict (*Apostle, 2022*). In early 2023, the government announced that it would issue 'digital certificates'—sometimes derided as 'porn passports'—to ensure the legal age of pornography users (*Strauss, 2023*). The system, which started testing in March 2023, requires users to install a state-run app on their devices. After verification, the app issues a code that allows access to pornographic websites without revealing the identity of the user (*Mouriquand, 2023*). Meanwhile, lawyers for the industry continue to argue against any such laws. The court is expected to rule in mid-2023 (*Cloris, 2023*).

⁵I do not endorse the group's conservative Catholicism and nativist politics (<https://www.stopauporno.fr/>).

⁶At that time, Pornhub was operated by MG Freesites in Lefkosia, Cyprus, owned by MindGeek of Montreal, and headquartered in Luxembourg. Pornhub's new owner is a Canadian private equity fund ludicrously named Ethical Capital Partners. XVideos is owned by WebGroup Czech Republic of Prague (formerly called WGCZ Holding), located at the same listed address of NKL Associates, which owns Xnxx. xHamster is part of Hammy Media, Limassol, Cyprus. TuKif has a postal address in Lisbon, Portugal.

Germany

The law in Germany is clear: It is illegal to provide pornography to children or to make porn available to minors (*Germany, Sec. 184*). But enforcing the law has proven, as in France, difficult.

The Interstate Treaty on the Protection of Minors or JMStV (Germany, Jugendmedienschutz-Staatsvertrag), in force since 2016, applies to broadcasting and telemedia (e.g., websites) in all 16 federal German states. Article 5 stipulates that:

Providers transmitting or making accessible content suited to impair the development of children or adolescents into self-responsible and socially competent personalities shall ensure that children or adolescents of the relevant age groups do not normally see or hear such content.

This statute seemingly requires pornography websites to employ age assurance mechanisms. The systems, moreover, require certification by The Commission for Youth Media Protection (Kommission für Jugendmedienschutz or KJM).

In 2019, the KJM threatened to block pornography websites that lacked relevant mechanisms. In 2019-2020, the Media Authority of North Rhine-Westphalia (Landesanstalt für Medien NRW) started to insist that several foreign-owned platforms comply (*Nünning, 2020*). These sites included xHamster and a handful of websites owned by MindGeek, including Pornhub, YouPorn, and MyDirtyHobby. The MindGeek websites refused the order, claiming the lack of jurisdiction since they are not based in Germany, while xHamster ignored the communication entirely, prompting the Media Authority to request that the large state internet service providers (ISPs) voluntarily block the site (*Burgess, 2021a*). They, too, refused.

Eventually, the matter moved to the courts. In December 2021, a judge in Düsseldorf, rejecting the argument about jurisdiction, supported a ban on the websites that failed to implement age assurance. The court concluded that German law applies because “children and young people are at risk of serious and grave danger from freely available pornographic Internet sites” (*Associated Press, 2021*). The judges also dismissed arguments that any such ban would violate EU and international commerce laws.

As a result, Germany ordered its major ISPs to block the German web address of xHamster in March 2022. But xHamster then had the gall to change its web address, or subdomain name, from de.xHamster.com to deu.xHamster.com, thereby circumventing the ban (*Neineck, 2022*). Later, xHamster did announce a willingness to work with the KJM on “effective and legally permissible technical protective measures” (*Vilentchik, 2022*). But there is no indication that xHamster or the pornography industry is genuinely interested

in protecting children.

The issue resurfaced in March 2023, when some pornography websites were again called to account for unlawfully sharing pornography on the internet. According to *Wired*, German regulators “have developed an AI system, dubbed KIVI, to spot pornography and offensive content on Twitter, TikTok, YouTube, Telegram, and more—scanning thousands of public posts and web pages per day” (*Burgess, 2023; Meineck, 2022*). However much this system may prove useful, it does apply age assurance to the entire ecosystem.

Admittedly, governmental orders to block porn websites *en masse* would initially take aim at the largest telecommunications providers, such as Vodafone, Deutsche Telekom, O2, and 1&1. These tech giants have the assets and clout to mount a significant challenge, “resulting in the age verification legal battle extending for years” (*Craufurd-Gormly, 2022*).

South Africa

The personal use of pornography is legal in South Africa but restricted only to adults over the age of 18. Because the latter was not enforced, the government essentially banned pornography in 2006 (*Legalese, 2020*). But this ban was no more effective, and so online pornography remains widely used in the country.

In 2010, a fundamentalist Christian group, the Justice Alliance for South Africa (JASA), presented the Deputy Minister of Home Affairs with a draft “Internet and Cell Phone Pornography Bill,” which would criminalize the distribution of pornography by an internet or mobile phone service (*BBC News, 2010*). The bill never passed and porn remains controversial in the country (*Lancaster, 2014*).

A few years later, the South African Law Reform Commission released an issue paper on pornography and children (2015), followed by a comprehensive discussion paper (2019). Although the latter discussed age verification in other countries, it did not endorse this route for South Africa. Instead, the Commission recommended that digital “devices (new and second hand) be issued or returned to a default setting that blocks inappropriate content, with an opt-in possibility depending on proof of age of the buyer/user as being 18 and older.” The commission similarly proposed that South African ISPs and mobile phone operators “provide for a clean feed internet (adult content filtering) as the default position.” Users could opt-out “by providing proof of age of majority.” The commission also recommended amending the Sexual Offenses Act to make it unlawful to provide a child with “any form” of digital device “without ensuring that the default setting blocks” pornography. It would also be illegal to uninstall the default setting without valid identification. But these recommendations have not been passed into law.

However, Section 29 of the 2022 amendments to the Films and Publications Act (*South*

Africa, 2022) states that internet service providers applying to operate in the country must “indicate in the application form all measures ... to ensure that children are not exposed to pornography.” The ISP may later be asked to “demonstrate that the measures ... are still effective.” Likewise, applications to distribute films classified as X18 (“contains explicit sexual conduct”) must also provide “a detailed statement on the measures put in place ... to ensure that children below the age of 18 ... are protected from exposure and access” (§ 2.4(c)). The distributor, too, can only accept a “child secure method” of payment. It would seem reasonable to conclude that these stipulations hinge on the use of age assurance systems. Nonetheless, the government is unwilling to unequivocally affirm this stance.

Countries with Laws that Could Support an Age Assurance Requirement

Three countries currently have existing laws that could, after a fashion, be interpreted as requiring age assurance mechanisms for online pornography: Spain, Luxembourg, and Romania.

Spain

In a report issued in February 2020, the Spanish Data Protection Agency (2020), or Agencia Española de Protección de Datos, stated pointedly that “there is no evidence” that pornographic content providers in the country use any “effective method” to verify the age of users (p. 9). At best, websites only ask users to confirm that they are adults. The report also acknowledged the availability of private sector “solutions on the market”—and named several companies—which could utilize official documents such as passports and driver’s licenses. In other words, the solution already existed.

A 2021 law, Comprehensive Protection of Childhood and Adolescence Against Violence, requires the public, private, and third or non-profit sectors to collaborate in promoting “the implementation of protocols of age verification” for online applications and services reserved for adults (*Spain, Art. 46.3*). The following year, Spain passed an enormous legislative bill on audiovisual communication (*Spain, Ley 13/2022*). Article 89.1(e) requires video sharing services to “establish and operate age verification systems for ... content that may harm the physical, mental or moral development of minors.” These services, too, must prevent access by minors to “gratuitous violence or pornography.” But this law applies only to television, radio, and on-demand services such as Netflix and Amazon Video. It does not include websites.⁷

⁷ Article 6 is noteworthy: “Audiovisual communication will transmit an egalitarian and non-discriminatory image of women and men and will not favor, directly or indirectly, situations of discrimination based on sex, inequality of women or that incite sexual or gender violence.”

That said, one could cogently argue that the intent of these laws is, in fact, to shield minors from pornography. Thus, the laws could and should mandate the use of age assurance systems across cyberspace. But, as in Spain (*Valdés, 2023*), authorities in many countries voice concern with minors viewing pornography but refuse to back-up their stances with concrete legislation that blocks access to pornography by children. In Seville, both a senior prosecutor and a professor of law have stated that the Spanish Constitution provides articles that could help regulate access to porn by minors (*Flores, 2023*). Presumably, they refer to Article 20, which recognizes the right to free expression but also limits this and other “freedoms” by the “right...to the protection of youth and childhood”).

Luxembourg

In 2021, Luxembourg transposed the Audiovisual Media Services Directive (AVMSD) of the European Union, which I discuss later, into its own national legislation (*Luxembourg, Loi du 26 février 2021*). Article 11 added a new section on the Protection of Minors, stating, in part:

Programs offered by an audiovisual media service provider which are likely to harm the physical, mental or moral development of minors shall only be made available to the public under such conditions as minors cannot normally hear or see them.[These measures, including “the use of age-verifying tools,” should be] proportionate to the harm that the program could cause. The most harmful content, such as pornography and gratuitous violence, is subject to the strictest measures.

Similar regulations were imposed by the act on video-sharing platforms.

This act, as we saw earlier in parallel legislation from Spain, does not, on the surface, apply to the internet. But a video service platform or VSP could apply to pornographic websites whose main objective is—as the law defines a VSP—to “provision” the public with user-created videos intended to inform, entertain, and educate. The spirit of this law, in other words, if not some of its letters, could and should again apply to online pornography.

Romania

Several aspects of the 2003 “Law on preventing and combating pornography” (*Romania, Lege nr. 196 din 13 mai 2003*) require protocols that would seem to have the same outcome as age verification. According to Article 7(1), the creators or administrators of pornographic websites “are obliged to password protect” their platforms. Access, moreover, “will be allowed only after paying a fee per minute of use.” Article 14 empowers the National Authority for Management and Regulation in Communications of Romania or

Ancom (Autorității Naționale de Reglementare în Comunicații și Tehnologia Informației) to order ISPs to block offending websites – and to impose fines on non-complying ISPs.

Countries Developing Age Verification for Possible Implementation

Only Australia currently fits this category. In July 2021, Parliament assented to a wide-ranging legislative bill on cyberspace, in parallel with developments in the UK, called The Online Safety Act (*Australia, 2021; eSafety Commission, 2022*). The Act never mentions pornography by name, but the National Classification Scheme categorizes pornography as Class 2 material, which is thus restricted. The Act provides a process for the eSafety Commissioner, which is an independent statutory body, to issue notices of removal for Class 2 materials that are hosted by internet services, social media, and other online platforms if that material is not “subject to a restricted access system” (§ 119(1)(f)(ii)). The Act does not define “restricted access,” or specify age verification. It instead assigns the task of determining adequate restrictions to “legislative instrument.”

One such instrument was proposed by the February 2020 report by the House of Representatives Standing Committee on Social Policy and Legal Affairs, “Protecting the Age of Innocence: Report of the Inquiry into Age Verification for Online Wagering and Online Pornography” (*House, 2020*). The report recommended that “the Australian Government direct and adequately resource the eSafety Commissioner to expeditiously develop and publish a roadmap for the implementation of a regime of mandatory age verification for online pornographic material” and other age-restricted products and services, such as online gambling. The roadmap was finalized in March 2023 but has not yet been released to the public (*eSafety Commissioner, 2023a*). The Australian government is also planning for a possible rollout of a government ID or ‘digital identifier’ for use in age verification (*Taylor, 2023*).

As part of the wider implementation process, the eSafety Commission called on industry associations to develop safety codes for review. The first round of submissions were aimed not at pornography (Class 2), but at illegal (Class 1) materials that pertain to child sexual abuse, extreme violence, and terrorism. The Commissioner provided guidelines for developing the safety codes (*eSafety Commissioner, 2021*). Still, submissions were “unlikely to provide the appropriate community safeguards required” (*eSafety Commissioner, 2023b*). The Commissioner asked for revisions. This does not bode well for any suggestion that the pornography industry help design age assurance systems for its own content. Even so, the momentum is such that Australia seems poised to soon mandate some form of age assurance for online pornography.

Countries Reviewing Legislative Proposals for Age Assurance

At present, three countries are assessing legislative bills or proposals calling for the implementation of age assurance for online pornographic content: Slovakia, Canada, and the UK.

Slovakia

In April 2023, a fringe right-wing Member of Parliament, Martin Čepček, who has opposed basic human rights for women, introduced a proposal to amend the current Media Act to restrict online pornography to adult users who submit an official certificate attesting to their age over 18 (*Vilček, 2023*). Websites and platforms that violate the law could be blocked or fined. Since Čepček has little political capital, it is unlikely that this amendment will pass or even gain traction.

Canada

In April 2023, the Senate of Canada passed the third reading of “An Act to restrict young persons’ online access to sexually explicit material” (*Canada, Bill S-210; Office of the Privacy Commissioner, 2021*). The bill proposes that “Any organization that, for commercial purposes, makes available sexually explicit material on the Internet to a young person [under 18] is guilty of an offence” (§ 5). Perhaps more important, the bill stipulates that it would not be a valid defense for a platform to state that it “believed” that an underage user was at least 18 years old unless the platform had “implemented a prescribed age-verification method” (§ 6(1)). The bill currently sits in the House of Commons (*Woolf, 2023*). It is worth noting that Canada is, along with many other nations, developing a Digital ID system (*Larue-Langlois, 2022*), which could also be used for this very purpose.

United Kingdom

In 2017, the Parliament passed the Digital Economy Act, which required commercial entities to make online pornography available in the UK “in a way that secures that, at any given time, the material is not normally accessible by persons under the age of 18” (*UK, Digital Economy Act, § 14(1)*). The Act allowed the Secretary of State to designate an “age-verification regulator” to enforce the law. But these provisions were abandoned in 2019 as ‘unworkable,’ resulting in a lawsuit against the government for its failure to prevent children in the country from accessing online pornography (*Grant, 2021*).

The following year, the government released a white paper on the harms of online content, including pornography, based on extensive consultation (*Dept. for Digital, 2019/2020*). This document served as the basis for The Online Safety Bill, introduced into

the House of Commons in March 2022 (UK, *The Online Safety Bill*; Loffhagen, 2022; Porter, 2023; Milmo, 2023). The bill has gone through several revisions, as well as three readings in the House of Commons, and now sits in the House of Lords. It is moving towards the final stages and then the *pro forma* Royal Assent.

For us, the relevant portion of the bill is titled “Safety duties protecting children” (§ 12(3)). It specifies that internet services have “a duty to operate a service using proportionate systems and processes designed to”:

(a) prevent children of any age from encountering, by means of the service, primary priority content that is harmful to children;

(b) protect children in age groups judged to be at risk of harm from other content that is harmful to children (or from a particular kind of such content) from encountering it by means of the service.

Distilled to its relevant essence, the Online Safety Bill would require internet services that host pornography to put in place mechanisms that prevent children from accessing that content.

The bill does not define “proportionate systems and processes.” But “relevant” factors include “all the findings of the most recent children’s risk assessment” and “the size and capacity” of the service provider (§ 10(10)). This will surely result in legal wrangling.

More clear and far more important is the guidance offered by the bill about how an online service could satisfy its “duty”:

a provider is only entitled to conclude that it is not possible for children to access a service, or a part of it, if age verification or age estimation is used on the service with the result that children are not normally able to access the service or that part of it. (§ 13(6)).

This stipulation would apply to any service that displays pornography, whether free or fee-paying, including social media, image sharing websites, peer-to-peer (P2P) chat systems, and “tube sites” like Pornhub that host user-uploaded videos (*Dept. for Science, 2022*).

What types of pornography will be subject to age verification remains unanswered. Secondary legislation will later divide online content that is most harmful to children into “priority” and “primary priority” materials (*Ofcom, 2022*). The proposed legislation would bar only the latter to all children. The former would be prohibited for specific ages.

To be sure, the Online Safety Bill has critics, who most(ly)? ignore or downplay the harms of pornography to minors (e.g., *Article 19, 2022; Trengove et al., 2022*). But the bill is likely to become law, thereby significantly curtailing the harms of porn for minors.

Countries that have Hosted Recent Governmental Discussions about Age Assurance

Almost ten other nations, in addition to those discussed above, have recently convened governmental discussion at one level or another about age assurance. These include Denmark, Italy, Ireland, New Zealand, India, Romania, Russian Federation, Switzerland, and Poland. Admittedly, not all these discussions have moved far. In this section, too, I review age assurance in the European Union.

Denmark

In September 2021, the new government formed by the Social Democratic Party appointed Member of Parliament Birgitte Vind to promote protections for minors against the harms of online pornography (*Reward Foundation, n.d.*). There is support from some quarters to follow the UK and implement age verification (*Mediesundhed, n.d.*). Relevant hearings have taken place in the Folketing or Danish Parliament. Minister Vind also has served as the spokesperson for a citizens' proposal in May 2023 for a parliamentary resolution to halt "the tech industry's commercial exploitation of Danish children and young people" (*Denmark, B 120*). One item in the proposal was a "Demand that tech companies block access to pornographic material for minors." The proposal drew support from similar initiatives, as outlined above, in France, Germany, and Great Britain.

Italy

There is no effort to mandate age assurance for online pornography in Italy, but the issue arose recently in regard to TikTok. In January 2021, a 10-year-old girl from Palermo tragically died from asphyxiation after accepting a "blackout challenge" from a TikTok video (*Morris, 2021*). Afterwards, the Italian Data Protection Authority or DPDP (Garante per la protezione dei dati personali) issued an emergency order to TikTok to block users who failed to re-enter a date of birth that would indicate an age of at least 13 (*Lomas, 2021*). TikTok removed more than 500,000 accounts. The platform also announced the possible deployment of an AI-based system that would assess users' ages based on their individual TikTok behavior. TikTok also considered ways of allowing parents to authorize a child's use of the platform, including through use of the National Digital Identity System (Sistema Pubblico di Identità Digitale or SPID), which is typically used to access government services (*Hermes Center, 2021*). But the issue faded as Italy went through a

government turnover in early 2021. There was no implementation.⁸

Across the EU, the General Data Protection Regulation (GDPR) does not easily allow for a commercial entity to collect and store private data from children (*Information Commissioner's Office, 2018; EU, GDPR, 2016*). However, the regulations also allow for emergency interventions. It was on this basis that Italy issued its order to TikTok. The Italian Data Protection Agency (2021) acknowledged the importance of finding a “balance between the need for accurate checks and the right to data protection of minors.” More important, one of the benefits of using AI to estimate age is that a platform like TikTok need not collect any additional personal data. The mechanism can adequately analyze the user’s everyday behavior on the platform.

Ireland

In 2019, two teen boys were found guilty of murdering a 14-year-old girl (*Loneragan, 2019*). One of the boys had stripped and raped her. He was additionally convicted of “aggravated sexual assault in a manner that involved serious violence against the victim.” At the time of their crime, the boys were only one year younger than their victim.

During the trial, according to the same news source, it came out that “one of the boys had thousands of extreme pornographic images and videos involving children and animals on his phone.” This prompted the prime minister or Taoiseach of Ireland to tell the press that he would “perhaps” roll out some type of an age verification system for pornography. Parliament had the “duty,” said the leader of the Labour Party, to require “Irish internet users to confirm they are 18 or older if they want to access adult sites.” The same news report mentioned that Sinn Féin had introduced “online safety legislation in the past,” but clearly to no avail.

The British Digital Economy Act, as discussed above, was never enacted. Similarly, Ireland failed to pass any comparable laws despite the Minister of State for Mental Health declaring that society “will live to regret” any failure to introduce age controls for pornography in the country (*Ryan, 2019*). In 2022, Ireland did pass the Online Safety and Media Regulation Act (*Ireland, 2022*). But it contained no mandate to operationalize age assurance or any other similar mechanism. At best, the Act “enables the Online Safety Commissioner to issue non-binding online safety guidance materials in relation to harmful ... [and] age-inappropriate online content, which includes pornography” (*Dept. of Tourism, 2023*).

In May 2023, a 15-year-old boy in Cork was convicted of sexual assault when he was

⁸ TikTok may suspend accounts of users who seem under the age of 13 or 14 (depending on the country). One can appeal by uploading a selfie while holding an official ID, or a photo of a parent/guardian holding a paper that states the user’s birthdate (TikTok, n.d.).

only 13 (*O’Cearbhaill, 2023*). He, too, had been viewing online pornography. The judge called for “rigorous restrictions” on internet porn. That has not yet occurred.

New Zealand

In 2018, the government Classification Office (Te Mana Whakaatu) released a report on youth and pornography (*Office of Film, 2018*). Almost 90% of young people consulted for the study agreed that children should not view pornography. Almost 75% of them endorsed age verification. In 2019, the Minister for Children, Tracey Martin, who also serves as Minister for Internal Affairs, said that she wanted suitable systems in place to restrict children’s access to online pornography (*Radio New Zealand, 2018*). But the chief censor, David Shanks, later replied that “age verification is not on the table” (*Radio New Zealand, 2019*). Instead, the government proposed installing mandatory filters on home internet connections that would block pornography unless the user opted out. This proposal, weak as it was, nonetheless failed (*Davison, 2020*).

In 2021-2022, a report commissioned by the Department of Internal Affairs (Te Tari Taiwhenua) mentioned age verification as a possible method to prevent children from viewing online pornography (*Thompson & Dabus, 2022*). But the report did not issue proposals. In June 2023, the government released a discussion document, “Safer Online Services and Media Platforms” (*Dept. of Internal Affairs, 2023*). Item 99 proposed that “Sites that host primarily adult material (such as legal pornography sites) will need to implement measures to protect children from accessing their content.” The document also mentioned “age verification” as one of several “controls to prevent children from accessing age-inappropriate content.” Later, a “code of practice” would be detailed and approved by a new independent regulator. There is no timetable for when the government will introduce new legislation based on the document and comments from the public.

Switzerland

The Swiss Penal Code forbids making pornographic material accessible to children (*Switzerland, Art. 197.1*). In 2022, a motion was introduced into the lower house or National Council (Nationalrat) of the Federal Assembly (Bundesversammlung), or Parliament, to block porn websites that fail to take “adequate technical precautions to protect persons under the age of 16” (*CNE.news, 2022*). The motion noted that asking users to confirm that they are at least 16 years old is inadequate.

The Federal Council (Bundesrat), or cabinet of the government, recommended rejection (*Switzerland, Motion 20.3374*), arguing in part that the 2021 Telecommunications Act already addressed the matter (*Switzerland, Article 46a*). But that law is weak, stating only that relevant regulations “may” be issued. The 2021 act, too, does not require any age assurance mechanisms. Equally ineffective was a revision motion offered in June 2023

by the Transport and Telecommunications Commission (Die Kommission für Verkehr und Fernmeldewesen) of The Council of States (Ständerat), or the upper house of Parliament. This revision shifted responsibility for protecting children from online pornography to parents through the use of unspecified end-user apps and tools (*Transport, 2023*). The motion did speak of governmental responsibility “to make access to legal pornography more difficult or impossible for young people under the age of 16.” But it contained no legal teeth. The final result is unclear.

Poland

In 2019, Prime Minister Mateusz Morawiecki stated during a meeting of the official Family Council (Rada Rodziny), established in 2019, that Poland needed to curtail the availability of online pornography to youth. “Just as we protect children and young people from alcohol, as we protect them from drugs, so should we also verify access to content, to pornographic material, with all strictness” (*TVP World, 2019*). The official stance towards pornography in Poland, however, is motivated not by peer-reviewed science but by a right-wing political and cultural agenda. The Family Council, for example, is charged with promoting a “traditional” family rooted in conservative Catholicism. As of July 2023, Poland has, regardless of motive, yet to legally require or implement age verification.

India

There has been sporadic discussion among certain sectors in the country on the question of age assurance, including think tanks (*Indian Council, 2019*), newspapers (*Deccan Chronicle, 2019*), and app developers (*Wranga, 2023*). But there also has been pushback, including from the Supreme Court (*Yadav, 2022*).

Legal support for age assurance can potentially be located in a 2022 revision to The Information Technology Act 2000 (*India, Information Tech., 2022*). The new rules state that a digital media intermediary, including social media, “shall make reasonable efforts to cause the users of its computer resource not to host, display, upload, modify, publish, transmit, store, update or share any information that” is “pornographic” or “harmful” to children. But no legislation has put forward age assurance.

Russian Federation

Generally speaking, the private viewing of online pornography is legal in Russia. But here, as in other arenas, the law is often slippery in how, and to whom, it is directed, and so is prone to political abuse.

For example, those who watch same-gender pornography could be prosecuted under a ban on so-called LGBTQ “propaganda.” The goal of this ban was homophobia, not health

(*Human Rights Watch, 2015*). It was aimed not at protecting young people from the harms of pornography but at the political repression of sexual and gender minorities in order to shore-up populist support for the current regime.

The availability of online pornography in the country also seems to hinge on political whim. In 2015 and 2016, The Federal Service for Supervision of Communications, Information Technology and Mass Media (Roskomnadzor) blocked several large pornography websites for failing to protect children “from information harmful to their health” (*BBC News, 2016*). The decision came in the wake of court rulings that websites which “spread” pornography are unlawful. The Criminal Code prohibits the “illegal production and/or movement” of pornographic materials across the national border “for the purpose of distribution, public demonstration or advertising” (*Russia, Article 242.1; Rights in Russia, 2020*). The code does not define what is and is not legal. But it clearly prohibits the “Distribution, public demonstration or advertising of pornographic materials or objects among minors.”

In 2017, Pornhub allegedly required Russian users to verify their age by granting the site access to their real name, birthdate, and other information on the social networking platform VK or V Kontakte (ВКонтакте) (*Meduza, 2017*). In 2021, newspapers reported that the General Radio Frequency Center (GRFC), which governs information technology and is under the auspices of the Roskomnadzor, had prepared proposals to limit access to legal online pornography through public or state portals after confirming the age of users (*The Bell, 2021*). Much of this is difficult to verify.

European Union

At present, the EU has not issued any “regulations,” or binding legislative acts, that require member states to implement age assurance. Nevertheless, the issue is one of a slate of possibilities that has for years been mentioned or implied in directives and discussions (*European Parliament, 2023*).

Several legislative acts could seemingly support an EU-wide requirement for age assurance. A Directive that updated the 2010 Audiovisual Media Services Directive (AVMSD) states:

Member States shall take appropriate measures to ensure that audiovisual media services ... which may impair the physical, mental or moral development of minors are only made available in such a way as to ensure that minors will not normally hear or see them. Such measures may include ... age verification tools or other technical measures. The most harmful content, such as gratuitous violence and pornography, shall be subject to the strictest measures (*EU, Directive 2018/1808, Article 6a*).

Similarly, Article 28b of the same Directive requires video-sharing platforms to “take appropriate measures to protect ... minors from programmes, user-generated videos and audiovisual commercial communications which may impair their physical, mental or moral development.” Those measures could include “establishing and operating age verification systems.” The Directive was not aimed at websites, much as I discussed above, for Luxembourg. But the intent of the Directive, which should reasonably apply to websites, is that children should not be able to access pornography.⁹

In 2022, the executive branch of the EU, the European Commission, unveiled a “new European strategy for a better internet for kids,” called BIK+ (*Euro. Comm., 2022*). The Commission “will support methods to prove age in a privacy-preserving and secure manner” (§ 5.1). The Commission also will “strengthen effective age verification methods, as a priority” and “encourage market solutions through a robust framework of certification.” The document, too, noted that member states “can choose to issue electronic IDs to the under-18s.”

At present, an EU-affiliated non-government organization or NGO is developing the infrastructure for “a pan-European, open-system, secure and certified interoperable age verification and parental consent” system” (*euConsent, 2023*). A core principle is that “Adult services and content should not be available to children to access (intentionally or by accident).” A pilot was run in March 2022 in five European countries (*Oprea, 2022*).

According to euConsent, almost 20 member states have integrated the AMVSD Directive into national legislation. These include several countries I have not discussed: Finland, Greece, Hungary, Latvia, Lithuania, Malta, Netherlands, Portugal, and Sweden. Other EU states are in the process of implementation, including Croatia, Republic of Cyprus, Czech Republic, Estonia, Slovakia, and Slovenia. The legislation, it is important to note again, does not pertain to online content. Hence, most of these countries legally impose restrictions only on pornographic content broadcast on television and radio, and then only by restricting the programs to, say, after 10:00pm (*e.g., Estonia, The Act, 2022*). But, again, this broad class of pan-EU legislation could serve as a principled foundation for future laws specifically mandating age assurance.

Last, The Digital Services Act requires “very large” online platforms and search engines to “diligently identify, analyse and assess any systemic risks” from the design, functioning, and use of their systems (*EU, Digital, 2022, Art. 34*). These risks include “any actual or foreseeable negative effects in relation to gender-based violence, the protection of public health and minors and serious negative consequences to the person’s physical and mental well-being.” The act also requires these services to “put in place reasonable, proportionate and effective mitigation measures” for these risks, which “may include ... age verification”

⁹ Facebook, TikTok, Snapchat, and other platforms have argued that they are not video-sharing platforms, and so exempt.. In this regard, see European Commission (2021).

(Art. 35; Goujard, 2023).

Age Verification in the United States

In June 2022, the Governor of Louisiana signed into law, effective January 1, 2023, a bill that provides “a civil remedy for damages against commercial entities who distribute material harmful to minors.” That material specifically includes pornography (*US, Louisiana, 2022*). This was the first such bill in the country.

The law allows individuals—presumably, parents and guardians on behalf of their minor charges—to file lawsuits seeking monetary damages from websites and platforms that allow children to access online pornography. More precisely:

Any commercial entity that knowingly and intentionally publishes or distributes material harmful to minors on the internet from a website that contains a substantial portion of such material [more than 33.33%] shall be held liable if the entity fails to perform reasonable age verification methods to verify the age of individuals attempting to access the material.

The word “reasonable” is open to interpretation, of course. But the practical effect of the law is that age verification is now obligatory for any pornographic website accessed from within Louisiana.

Other states followed suit, as tracked by the “Free Speech Coalition” which, despite the admirable-sounding name, is nothing other than a trade and lobbying organization for the pornography industry (*Free Speech, 2023*). Texas, Montana, Virginia, Arkansas, Mississippi, and Utah have each passed legislation modeled after the Louisiana bill, which are slated to come online in 2023 or 2024.¹⁰ Similar but not identical bills have been introduced in Oregon and South Carolina; they are now in committee.¹¹

The Texas bill, like the comparable legislation in the other states, specified the use of “reasonable age verification methods” (*US, Texas, HB 1181, 2023*). What is reasonable? According to the law, it is a government-issued digital identification or some other “method that relies on public or private transactional data to verify the age of an individual.” The Texas law, too, like many others, requires commercial pornography

¹⁰ The bills are: Texas (HB 1181), Montana (SB 544), Virginia (SB 1515), Arkansas (SB 66), Mississippi (SB 2346), and Utah (SB 287).

¹¹ Oregon (SB 257) and South Carolina (H 3424). Similar bills failed or were canceled, postponed, deferred, or died in committee in Alabama, Arizona, California, South Dakota, Kansas, Iowa, Missouri, Kentucky, Tennessee, Alabama, Florida, and West Virginia.

websites to display health warnings on their landing pages.¹² In Texas, these warnings must read:

TEXAS HEALTH AND HUMAN SERVICES WARNING: Pornography is potentially biologically addictive, is proven to harm human brain development, desensitizes brain reward circuits, increases conditioned responses, and weakens brain function.

TEXAS HEALTH AND HUMAN SERVICES WARNING: Exposure to this content is associated with low self-esteem and body image, eating disorders, impaired brain development, and other emotional and mental illnesses.

TEXAS HEALTH AND HUMAN SERVICES WARNING: Pornography increases the demand for prostitution, child exploitation, and child pornography.

U.S. SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION HELPLINE: 1-800-662-HELP (4357). THIS HELPLINE IS A FREE, CONFIDENTIAL INFORMATION SERVICE (IN ENGLISH OR SPANISH) OPEN 24 HOURS PER DAY, FOR INDIVIDUALS AND FAMILY MEMBERS FACING MENTAL HEALTH OR SUBSTANCE USE DISORDERS. THE SERVICE PROVIDES REFERRAL TO LOCAL TREATMENT FACILITIES, SUPPORT GROUPS, AND COMMUNITY-BASED ORGANIZATIONS.

In this way, these states effectively classify pornography as a health hazard, not unlike gambling, tobacco, beverage alcohol, and, in some countries, highly-processed foods.

The American bills have made a significant impact. Pornhub blocked access to users in Utah (*Gehrke, 2023*), which remains in place as of September 2023. Instead, Pornhub posts a sober-sounding announcement claiming that “safety and compliance are at the forefront of our mission,” and so “giving your ID card every time you want to visit an adult platform is not the most effective solution for protecting our users, and in fact, will put children and your privacy at risk.” This claim is demonstrably false since Pornhub has been served with multiple lawsuits in the past few years alleging rape, underage sex trafficking, and hosting sexual videos without obtaining consent, among other crimes (*e.g., Ritter, 2021; Dray, 2022*).

Instead of these new laws, Pornhub advocates certifying individual devices (*e.g., a particular phone or tablet*) rather than users. But this proposal is wholly ineffective since, at the very least, underage kids could simply ‘borrow’ - with or without asking permission - an adult’s phone or laptop. That is to say, Pornhub’s solution to access by children is to implement no solution. We can gauge the effectiveness of these novel US laws from the fact that the new owners of Pornhub, the private equity fund oxymoronically called Ethical Capital Partners, is lobbying Google, Apple, and Microsoft “to jointly develop a

¹² Several US states have also introduced bills to require the installation of passcode-protected filters on new digital devices sold in the state. The filters would block pornography by default. Manufacturers that refused the order, like individuals who give passcodes to minors, would be subject to civil and/or criminal liabilities. These states (and bills) are South Carolina (S 591), Minnesota (SF 846), and New Jersey (A 2952/S 650).

technological standard that might turn a user’s electronic device into the proof of age necessary to access restricted online content” (*Fung, 2023*). But this new “standard” would, as just noted, subvert the very intent of the new laws, which is to certify the age of users, not the owners of devices. This lobbying effort, too, shows the power of the pornography industry, which can readily gain the ear of some of the largest tech companies on the planet, and sway their public policies. The porn industry, too, filed lawsuits in May and June 2023—spearheaded by the Free Speech Coalition—challenging the legality of the Utah and Louisiana laws.¹³

Users who try to access Pornhub from within Louisiana are greeted with the notice, “Louisiana law now requires us to put in place a process for verifying the age of users who connect to our site from Louisiana” (*Robertson, 2023*). The user is then directed to verify their age through AllpassTrust, an age verification service owned by MindGeek subsidiary in Cyprus, MG Billing. MindGeek no longer owns Pornhub, but misleadingly describes itself on its website as an “information technology firm.” Its business is porn, as evidenced by some of its many websites, not just YouPorn and My Dirty Hobby, as noted earlier, but also PornMD, Xtube, SexyHub, and RealityKings. The latter includes Sneaky Sex, Moms Lick Teens, Milf Hunter, Crazy Asian GFs [girlfriends], Cum Fiesta, and See My Wife. If MindGeek is unable to honestly define itself, it can hardly be expected to diligently assess the age of its users.

Recent legislation in the US on age verification has mainly focused on the states. In January 2023, however, an arch-conservative Florida Congressman Greg Steub introduced legislation in the House of Representatives that seemingly supported these efforts. The bill takes aim at Section 230 of the Communications Decency Act of 1996 (*US, Section 230, 2022*). Section 230 grants immunity to internet service providers, websites, social media platforms, and the like, from liability for third-party posts and uploads, provided that the service is a ‘mere conduit’ and not an author of the post (*see Kosseff, 2019*).¹⁴ Steub’s bill would deny this immunity for “content that is indecent, obscene, or otherwise harmful to minors” (*US, H.R. 573, 2023*). But his true intent is to promote extremism since the bill would also strip immunity from “dominant” services, such as Twitter and Facebook, that seemingly violate ‘free speech’—which for Steub means giving free reign to Donald Trump and online forums like now-shuttered Parler, which featured vile racism, antisemitism, homophobia, and misogyny (*Smith, 2021*). Steub and his bill are not allies in the struggle to prevent the harms of pornography to children.

What Does Age Assurance Look Like?

The simplest form of age assurance is, as noted earlier, simply to ask users to click a

¹³ The complaints alleged that the laws violate the first and fourteenth amendments to the US Constitution, among other things (see Metz, 2023; Cline & McGill, 2023; and Dunphey, 2023).

¹⁴ Except for sex crimes against children, sex trafficking, prostitution, and copyright infringement.

cursory ‘I’m-over-18’ checkbox. But this kind of “age gate” is laughably ineffective, even though it is common on pornography websites worldwide. To prevent minors from accessing online pornography, more sophisticated systems are necessary.

These systems are not new concepts. Standards detail that the minimum requirements for an effective and safe system of age assurance should specify minimum requirements for privacy, safety, security, data handling, usability, accessibility, and auditing of age verification providers (*Grassi et al., 2017; Aust. Govt., n.d.; Age Check, 2020*). The Canadian bill (S-210) discussed above would require vetting of systems for reliability, privacy, protection of personal data, use of that data “solely for age-verification purposes,” and assurance that, once verification is completed, personal data is destroyed.

The German government maintains an official list of approved age verification formats, including commercial platforms (*Kommission, 2023*). The government, too, recently endorsed machine learning systems that estimate a user’s age based on biometric characteristics such as face and voice (*Kabelka, 2022*). Systems can also use answers to certain questions and, if they are granted access to social media, interests, friends, and use of language.

Typically, an age verification platform or app requires users to upload an image of a government-issued or approved photographic identification card, or to submit data from an electronic version, often called an e-ID. When applicable, some systems also use credit cards, mobile phone numbers, banking information, or other documents or personal data. The app scans the ID or document for signs of tampering, and checks the information against national or consumer databases to ensure validity and that the ID has not been reported stolen. Age estimation systems, too, as noted above, typically analyze biometric data. They generally ask users to upload a short video in which they perform some specified action, such as turning their head, making facial expressions, or saying a phrase.

It is not enough for an age verification system merely to allow a user to submit a valid ID or proper data. Resourceful minors could obtain the necessary information from unknowing or complicit parents, guardians, or other adults. A proper system thus needs to make certain that the person who seeks verification has submitted their own information. For if Jimmy, Jr. uploads the driver’s license of Jimmy, Sr., and is then approved to access a pornography site, the system has failed.

It is insufficient, too, to merely ask a user to upload a facial photograph or normal selfie which the system could match with the photo on the ID. It is too easy again for a resourceful minor to obtain and upload a photograph of the adult whose ID the child has also submitted. It is also not difficult to spoof a simple selfie by snapping a photo of another photograph or creating a deepfake image. Hence, most age verification platforms employ some form of “liveness” detection.

The issue, again, is to ensure that the person who uploads an ID is the person depicted on the document. Instead of asking the users to upload a static selfie, platforms with “liveness” detection essentially require users to take a short video using a particular app or web-based interface, rather than from within the operating system preinstalled on the user’s phone or device. There are two types of liveness detection. An “active” system not only checks that the face in front of the camera matches the face on the submitted ID, but also asks the user to blink, nod, move their head, touch their nose, follow a dot on a screen with their eyes, and similar. One system analyzes “facial measurements, skin texture, various face ratios, light and shadow analysis, and depth signals” as well as “breathing, blinking, and eye dilation” to ensure that the camera, in essence, is looking at a real person (*Persona, 2023*). This way, the app can tell that the person who is depicted in the photo ID is in fact the person before the camera at that moment.

However, tech-savvy underage users could still fool an unsophisticated age verification platform. They could create a mask from a photograph, cut out the eyes, and move as instructed during the verification process. Moreover, many businesses are displeased with “active” detection because the process is involved for the user, takes time to complete, and lends itself to confusion, which results in some potential customers giving up and going elsewhere (*Cook, 2019*). So, the “passive” approach to liveness detection is often preferred (*PXL, 2022*). The user still uploads an ID, relevant document, and/or certain information. But the onboarding app only briefly scans their face or takes a quick “live selfie,” and then uses AI to check for liveness. This system is quicker and easier on the user, and then can operate in the background while the user is doing other tasks. Contrary to what one might think, too, this type of analysis is allegedly more accurate than “active” liveness detection (*Innovatrics, 2021*).

To verify age and identity each time a user accesses an adult-oriented website or platform, whether for wine or porn, would be cumbersome. Many businesses and governments, too, lack the resources and expertise themselves to set up age assurance systems. Instead, they generally contract with specialized firms. Once a user is verified, the app can deposit a ‘cookie’ on the device which other websites that also employ the app can access. Alternatively, the app can assign a password or key to verified users, which they use to gain entrance to porn sites.

Additionally, third-party services are preferable in terms of protecting user privacy. The sole task of the platform is to certify that a user has reached the age of majority. It has no need to know why a user seeks verification. Nor does the platform need to store the user’s data once the verification process is completed. Hence, the instrument need only deposit a cookie, passcode, or e-certificate on the user’s device. In turn, pornographic websites do not need to know a user’s identity or have access to personal data. It only needs evidence that the user has been verified.

Numerous tech firms now specialize in age assurance. Most are not aimed at the

pornography industry itself but at various commercial, financial, and public sectors. These companies, in addition to the ones mentioned earlier, include AgePass, AgeChecker, 1Account, IDMerit, GB Group, Jumio, LexisNexis Instant Age Verify, AgeChecker, AgeChecked, AgeCheck, Veriff, ConnectID, IDVerse, ID-Direct, Uidentify, AGEify, Fully-Verified, Privo, and more. Even the porn conglomerate MindGeek operates its own verification company, AllpassTrust, as noted above.

Yoti is probably the best-known firm. The platform is certified by the British regulator (Board of Film Classification), which was partly decided on the basis of data protection requirements (*Yoti, n.d.*). Yoti was also adopted by Pornhub in limited instances to verify the identity of some performers and video uploaders (*Muschi, 2020*). In one method, Yoti scans the image of an identifying document to authenticate it as genuine and valid. The app then uses liveness detections and a biometric algorithm to match the image of the user's face with the photo on the ID. The data is encrypted; the "encryption key is stored on your phone and is activated when you unlock your app with your PIN, thumbprint or Face ID" (*Yoti, 2023a*).

Another age verification service, Shufti Pro (*n.d.*), also asks users to upload an image of a government-issued identification document, such as a driver's license. The user then takes a live selfie, to which the platform applies several tests, including "3d depth analysis" and "microexpression analysis" to detect liveness. Then the app matches the selfie with the person depicted on the photographic ID.¹⁵

A few years ago, a now-defunct age verification platform owned by MindGeek, AgeID (2019), planned to sell physical cards in the UK. The card was developed in collaboration with London-based tech firm OCL or One Click Licence Ltd. Users could purchase the PortesCard in retailers across the country after showing appropriate ID. The card would provide a username and password which the porn consumer would input into desired websites. In this way, users only revealed their personal data to shop proprietors at the point-of-sale. Today, however, the AgeID url points to the AllpassTrust website, which contains no further information on the card.

There are also, as noted, platforms that estimate age. These systems use AI to determine the approximate age of users, who again upload, through an app or portal, live selfies or short videos but not personal documents.¹⁶ The platforms generally estimate if the user is, say, over 13, 15, or 25 years old (*see also Burgess, 2021b; Yoti, 2023b*). In addition to Yoti, common brands are VerifyMy (2022), which was approved by the German Commission for Youth Media Protection (Kommission für Jugendmedienschutz, or KJM), Veriff, Rapid, PrivacyCheq, Privately, Ondato, and Token of Trust.

¹⁵ For a demo by one company, Veriff, see <https://demo.veriff.me/>

¹⁶ For demo by Yoti, see <https://yoti.world/>

Data Protection

Age assurance mechanisms will undoubtedly become more efficient and secure, and require less personal data, as more countries roll out electronic identification or e-IDs. The European Union, for example, is developing a European Digital Identity or EU eID (*Euro. Comm., n.d.*). This digital wallet will facilitate travel and access to public, financial, and medical services. It is already operable in Germany, Italy, Spain, Denmark, and several other nations. Globally, national forms of e-identification will enable greater social, political, and financial inclusion, especially in developing nations where millions of people are still unable to easily prove who they are.

There is understandable unease about privacy and how these systems could be deployed by authoritarian regimes, unscrupulous corporations, and malevolent actors. The technology needs further refinement, especially when estimating the age of people with darker complexions (*Buolamwini, 2022; Metz, 2022; van der Hof & Outburg, 2022*). But these concerns equally apply to many online technologies, not the least of which are banking and financial transactions. Furthermore, many countries already employ age verification systems for online gambling and other products, as will be discussed below. Yet only the pornography industry—hardly a bellwether for corporate morality—is unduly alarmed, often quietly supported by Big Tech behemoths such as Google, Meta, Amazon, and Snapchat (*Kern, 2023*). Clearly, at least some of these concerns are intended to protect profits, not privacy.

The law, too, can adequately address legitimate worries about privacy. The recent Louisiana legislation, for example, states that “Any commercial entity or third party that performs the required age verification shall not retain any identifying information of the individual after access has been granted to the material.” Several nations and organizations have already established standards, too, as mentioned above (*see also Age Verification, 2022*).

The EU is particularly attuned to data privacy. According to the Audiovisual Media Services Directive (AVMSD), as discussed earlier, any system operating in the EU “shall be proportionate to the potential harm of the programme.” The word “proportionate” prevents the collection of too much personal data. Age assurance systems, too, must adhere to the General Data Protection Regulation (*GDPR, 2022*). The GDPR, as noted earlier, strictly limits the collecting and processing of personal data gathered from minors (*euConsent, 2021*). Furthermore, biometric data is a special class under Article 9 of the GDPR and subject to extra precautions. The “data minimization principle” of the GDPR (Art. 5(1)(c)), restricts the collection of personal data “to what is directly relevant and necessary to accomplish a specified purpose,” and only “so long as is necessary to fulfil that purpose.”

In France, the Commission nationale de l'informatique et des libertés, drawing on EU regulations, ruled that, to protect privacy, pornography websites should not collect personal data from users when verifying their age (CNIL, 2022). Instead, the CNIL recommends that a third-party service verify a user's age but not connect the user to a website. This way, as discussed earlier, the service has no way of knowing the purpose for verification, and the pornography website has no access to the user's personal information. The goal is "double anonymity."

Age Verification for Alcohol, Gambling, and Banking

Age assurance is not unique to online pornography, as just noted. It is used by many sectors, including beverage alcohol, gambling, banking, and government services.

In the US, for example, the state of Kansas has approved the use of several third-party platforms—including IDology and Veratad—to verify age for online alcohol sales. Alcohol deliveries by Drizly, DoorDash, and other on-demand services electronically verify IDs and age. Federal US law requires online tobacco retailers to use "a commercially available database or aggregate of databases, consisting primarily of data from government sources, that are regularly used by government and businesses for the purpose of age and identity verification" (US, 15 U.S. Code § 376a 4 A (iii), 2021). In Australia, the state of New South Wales is trialing age verification for online alcohol purchases using the NSW Digital ID, Mastercard, and the delivery company Tipple (Burton, 2023; MasterCard, 2023). Of course, much of the effectiveness of these or any age verification process requires authorities to ensure compliance (Muirhead & Grout, 2020).

Age verification is also used around the world for legalized online gambling. Malta, Germany, Italy, US, Cyprus, UK, Australia, Mexico, and Poland, among other countries, all require verification of legal age prior to placing online wagers. Spain accepts the electronic version of the national identity card (Documento Nacional de Identidad electrónico or DNIe) as well as MobileID, a digital identity linked to one's phone and developed by VEON, a telecommunications company. It is based on a platform developed by the international Mobile Communications Association (GSMA). Online gamblers in the Netherlands can verify their identity and age with iDIN, a digital ID provided by Dutch banks which is also accepted by public institutions, insurance companies, and online retailers. Sweden accepts BankID. Denmark announced plans in 2021 to launch an e-ID just for betting (Narayan, 2021). In the US, the third-party verification process employed by online gambling platform DraftKings may ask registrants to upload a "self-certified ID (SCID)," which consists of a picture of the user holding a driver's license, passport, or other government-issued photo ID next to their face (DraftKings, n.d.). These verification processes also curtail money laundering and fraud, and allow in some countries, such as the UK,¹⁷ the self-exclusion of

¹⁷ GamStop is a common not-for-profit self-exclusion system in the UK (<https://www.gamstop.co.uk/>).

problem gamblers.

The global financial sector, too, relies on online age and identity verification (as mentioned earlier, national e-IDs are used for banking in Sweden, Netherlands, and Spain). The Bank of Spain (n.d.) also accepts numerous private sector or commercial forms of identification and certificates. Various digital or e-IDs are also used for financial, commercial, and public sector services in France (Identité numérique La Poste), Liechtenstein (eID.li), Australia (MyGovID, Australia Post Digital iD), Singapore (Singpass), Japan (MyNumber or 'MaiNa'), India (Aadhaar), Philippines (ePhilID), and elsewhere.

Electronic age and identity verification are also used in various arenas of the private sector, including online payment platforms (e.g., Stripe, LINE Pay) and cryptocurrency exchanges (e.g., Coinbase). Systems are used in various contexts by Airbnb (2023), Uber (2020), Lyft (2021), and the 'hookup' app Tinder (*Abernethy, 2020*). Google (2020) verifies the age of Japanese users prior to posting ads for online dating services. The global pornographic webcamming platform FanCentro (n.d.) requires users in Germany to verify their age through Yoti, as does Yubo (n.d.), a French social networking platform aimed at young people aged 13-25. In the UK, online vendors of certain knives and corrosive chemicals must also implement "remote age verification ... to demonstrate that they took all reasonable precautions and exercised all due diligence" (*UK, Offensive, 2019*). Many countries, too, require online registration and identity verification for the purchase of mobile phone SIM cards (*Bischoff, 2023*).

Conclusion

Legislative efforts to mandate the implementation of online mechanisms to protect children against the harms of pornography predictably raise extremist hackles. Opponents of age assurance systems often inflame moral panic by raising the specter of Big Brother. But Big Porn is scarcely different from Google, Microsoft, and other Big Tech firms in its efforts to collect and monetize users' data (*Meineck, 2019*). It is important to preserve the internet as a forum for the free exchange of ideas. But cyberspace is not free for children so long as predatory pornographers are given free reign. Age verification and age estimation mechanisms are reasonable methods of ensuring that Pornhub and similar platforms stay away from the eyes of children.

Age assurance will surely irk many users of online pornography. It is an extra step, albeit a negligible one, they will need to occasionally take in order to engage in an online masturbatory experience. Social media and online platforms might also see a reduction in their ledger sheets (*Johnston & Criddle, 2023*). But these minor annoyances are a fair price for living in a digital world that also includes children. No reasonable adult would hand

a child a bottle of beer and the car keys. We should not do the same when it comes to online pornography.

In fact, age assurance systems do more than prevent minors from encountering harmful content. They also facilitate the recognition that children are digital citizens.¹⁸ “All age assurance does,” states the London-based 5Rights Foundation (2021), “is let a service provider know that a child is there, or perhaps more accurately, ensures that the sector does not continue to pretend that children are not there.” Insisting that online pornography is available only to adults is little more than asking the pornography industry and the wider public to recognize that children exist in the online ecosystem.

¹⁸ There is a sizable literature on children and digital citizenship (e.g., Council, 2019; Burns & Gottschalk, 2019).

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