ProveMyAge
White paper

Contents

This paper is for businesses in the adult entertainment industry seeking an age verification service, and for any other interested parties.

It explains the recent changes to British law regarding accessing adult material online, and how Yoti's ProveMyAge service provides an effective, privacy-friendly solution that works under the new rules.

Changes to UK law for adult websites – the requirement for age verification

There has been widespread concern that it is too easy for children to view pornographic material online. In the United Kingdom, the government has responded to these concerns by introducing a new law, the Digital Economy Act[1]. This requires websites or apps that make pornographic material available on a commercial basis[2] to have effective age verification checks in place before pornography can be accessed. The aim is to prevent people under 18 from viewing pornographic material.

The UK government has appointed the BBFC (British Board of Film Classification) as the age verification regulator responsible for ensuring compliance with this new law[3]. In this role the BBFC's primary concern is to protect children in the UK from exposure to adult material online. If the BBFC determines that a site does not have suitable age verification measures in place, it will serve notice on them and allow them a reasonable time to become compliant. Failing that, the BBFC will take enforcement action. It will do this regardless of where in the world the website in question is hosted. Its enforcement action may include:

- requesting payment service providers to cease processing payments from UK consumers to that site;

- notifying ancillary service providers of the site, for example requesting online advertisers to not deal with the site, requesting search engines to not list the site, requesting social media platforms to not feature content from the site;

- requesting UK ISPs to prevent access to the site; or

- instituting civil legal proceedings against the site.

Privacy-friendly, accurate and accredited age verification

There are many existing methods for proving identity and age online. However, understandably, when accessing adult content, consumers place great value on methods which preserve their privacy. Most consumers would not be happy using an age verification system which allowed adult websites to track them and their viewing habits, or stored personal details about them. Moreover, European Union law is entirely sympathetic to their concerns: the EU General Data Protection Regulation (GDPR) makes stringent privacy demands on companies that store personal data.

One of the great strengths of Yoti's ProveMyAge service is that consumers can entirely retain their privacy when using it. The only information that ProveMyAge shares with an adult website is whether the person's age is 18+. No names, addresses, phone numbers, payment details, locations, images – only whether their age is over the threshold or not.

Accreditation

In July 2018, Yoti's provision of online age-checking services was assessed for conformance with the British Standards Institute's PAS 1296 Code of Practice[4]. Yoti received an unqualified (that is, no exceptions found) 'SOC 2 Plus'[5] report from one of the global top four auditing firms, which is available on request. This assessment covered use of the Yoti app for age verification. We plan to embark on a continuing SOC 2 Type II assessment in 2019 which will also cover use of Yoti Age Scan.

As the UK's age verification regulator, the BBFC will run a voluntary, non-statutory Age Verification Certification Assessment scheme for age verification solutions. We are confident that ProveMyAge will achieve this certification during Q2 2019.

1. Specifically, see Part 3 of the Digital Economy Act 2017 www.legislation.gov.uk/ukpga/2017/30/contents.
2. As defined by the Online Pornography (Commercial Basis) Regulations 2019 www.legislation.gov.uk/uksi/2019/23/contents/made.
3. See www.ageverificationregulator.com/industry/guidance/

4. PAS 1296: 2018 Online age checking—Provision and use of online age check services—Code of Practice. Available from the British Standards Institute shop.bsigroup.com.
5. SOC2, formally known as an ISAE 3000 Type I Service Auditors Assurance Report.
6. www.ageverificationregulator.com/av-certification

How ProveMyAge works for consumers

Yoti's ProveMyAge service currently offers consumers a choice of two methods to verify their age – using Yoti Age Scan or the Yoti app. For both these methods, the end result is the same: ProveMyAge simply reports whether or not the consumer is old enough to be allowed in (a simple yes or no). No other information is passed to the adult website. Each method is explained below in turn.

Using Yoti Age Scan

With this method, consumers simply look into their phone's camera or their computer's webcam, and Yoti Age Scan will estimate their age.

This is new AI (artificial intelligence) technology, where we use machine learning to train a neural network. The result is that our technology can estimate human ages by looking at images of their faces. How well does it work? The accuracy is already at least as good as average human ability to estimate someone's age. It continues to improve as we continue to train our model on an ever wider set of data. Nevertheless, Yoti Age Scan does have a margin for error. For initial roll-out, after consultation with the BBFC, we have agreed to build in a seven year safety buffer. If Yoti Age Scan estimates someone's age is 25 or over, it will inform the adult website that the person is old enough to view adult content. Anyone estimated below that will have the option to use the Yoti app method instead.

To be clear, Yoti Age Scan does not require consumers to set up an account with Yoti. They don't have to log in, they don't have to install anything, they don't have to give us any information about themselves. They simply look into the camera with their face uncovered. The age scan takes only a few seconds to complete, then their image is immediately deleted from our servers. No record of them is kept. The only output is an anonymous age token, declaring that we estimate they are old enough to access adult content (they are 25 or over).

As a further security measure, Yoti has partnered with FaceTec, the world leader in biometric face solutions, to incorporate their ZoOm 3D Authentication into ProveMyAge. We believe this is currently the most effective anti-spoofing technology available. It can detect whether the image presented to the camera is a real live person, and not a video, a photograph being held up, or a person wearing a mask.

For more information on Yoti Age Scan and how it works, including detailed test results of its accuracy across a range of ages, gender and skin tone, we have another white paper available on our website[7].

Using the Yoti app

With this method, consumers use the free Yoti smartphone app to anonymously share that they are 18+ with an adult website. This method does involve an initial one-off installation of our app, registering a Yoti account, and uploading an ID document with their date of birth on it. This can be done at any time prior to accessing adult content. Yoti's security centres process new user registrations 24 hours a day, 365 days a year. Their interaction with the adult website itself remains entirely anonymous.

The Yoti app is free to install and use on Android and iOS mobile devices, and is available to anyone aged 13 and over. Essentially, the app allows users to capture their own biometric data and upload their own ID documents (which are then verified at the Yoti security centre) to create their own digital identity. They can then use the Yoti app to selectively share attributes of their verified personal data with businesses or other individuals. In the case of ProveMyAge, provided they have uploaded a verified document containing their date of birth to their Yoti (we support passports, driving licences and national ID cards from around the world[8]), their app will simply share whether they are 18+ or not. No personal information is shared with the adult site beyond the age attribute, making this a private and secure solution.

It is worth emphasising that the Yoti app and platform contain a number of novel security, encryption and privacy features, to prevent users' data being hacked. A full discussion of these measures is beyond the scope of this white paper, but more detail is available on the Yoti website[9] and in our SOC2 report[10]. Yoti has held ISO27001 certification for information security[11] since 2015.

7. www.yoti.com/blog/yoti-age-scan-whitepaper-deep-dives-into-yotis-revolutionary-age-estimation-technology/

8. See the Yoti website for the currently supported list yoti.zendesk.com/hc/en-us/articles/360002886594-What-ID-documents-do-you-currently-support-

9. www.yoti.com/personal/security/

10. Our controls framework for security was assessed according to the AICPA TSP 100 Trust Services Criteria and received an unqualified 'SOC2' Type I report from our auditors, available on request.

11. BS EN ISO/IEC 27001:2017 Information technology—Security techniques—Information security management systems—Requirements (ISO/IEC 27001:2013, including Corrigenda 1:2014 and Corrigenda 2:2015). Available from the International Organisation for Standardization www.iso.org.

Verifying age on multiple sites: ProveMyAge tokens

Consumers of adult entertainment sites will often visit more than one site during a single browsing session. Currently, they will be used to clicking freely between them and would find it inconvenient to have to verify their age for every single site they visit.

When our ProveMyAge service performs age verification on someone, the result is stored as a hashed 'age token' (a form of cookie) in their browser session.

Having a valid 18+ age token in their browser session means that person can access any adult website that uses our ProveMyAge service without having to verify their age every time.

The hashed age token is unique, bound to their current IP address, and will persist for the length of their browser session, up to 24 hours[12]. In normal usage modes, the token will persist even if the browser window itself is closed (although not for high privacy modes such as Google Chrome's 'incognito mode' or Mozilla Firefox 'private browsing' – in these cases, closing the browser window will delete the token).

Integrating your site with ProveMyAge

Adding ProveMyAge functionality to your website is a straightforward task, typically requiring approximately one day of web developer and web designer time. They will use Yoti's ProveMyAge API together with some basic network programming knowledge to add the following functionality.

1. A link to Yoti's ProveMyAge service, using a signature that consists of your brand ID, redirect location, type of check and metadata about your server.

2. Listening for responses to age verification requests. These will come from your visitors' browsers.

3. The ability to verify age verification requests, by sending the check ID back to Yoti's ProveMyAge service to confirm that the check is valid and has not been re-used or shared.

Yoti can supply further details on the integration on request – please contact support@provemyage.com.

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12. Or to whichever value is recommended by the age verification regulator.

Powered by

Yoti is on a mission to become the world's trusted identity platform.

Our anonymous age estimation technology is powered by Yoti. Whether we estimate your age using your camera or you use the Yoti app, you are proving your age, and nothing more.

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