



Age Verification in Canada: The Need for an Evidence-Based, People-Centric Policy

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Innovation is often driven by necessity, but sometimes it creates new needs of its own. This seems particularly true in today's digital tech landscape, which has dramatically reshaped our world. Yet, with the industry largely controlled by a handful of tech giants, we must ask: Are these innovations truly emerging from community needs, and are they adapting to them effectively? The recent debate in Canada about age verification is a solid example of this dynamic.

Age verification is a crucial legal requirement for providing certain age-restricted services and products. Recently, global emphasis on this measure has intensified, particularly to ensure online safety for children. However, it has also sparked considerable debate from ethical, legal, and technical perspectives, especially in Canada.

A key example is 'Bill S-210, An Act to Restrict Young Persons' Online Access to Sexually Explicit Material', currently under review in the House of Commons. This bill proposes mandatory age verification for users accessing adult content online. Such verification is already required for purchasing products like alcohol, tobacco, gambling and cannabis.

On December 13, 2023, Bill S-210 passed its second reading in the House of Commons with a vote of 189 to 133, revealing a clear divide along political lines. The debate even involved a heated exchange between the Prime Minister and the Leader of the Opposition. This division is echoed across various sectors of society.

Another relevant bill, Bill C-412, titled 'An Act to enact the Protection of Minors in the Digital Age' and to amend the Criminal Code,' was proposed in the House of Commons on September 16, 2024. The bill applies to a broad range of online services that children may use, including social media, gaming platforms, and other digital spaces. So, it is also expected to spark significant debate. This bill proposes mandatory parental consent before a child (defined as under 16 years old) can first use such online platforms.

With the alarming rise in online child exploitation,

women's and children's rights advocates, social activists and many parents have long called for such legislation, citing examples from countries like France, the UK and the USA. This demand has led to the growth of a booming age-verification industry, driven by advancements in AI.

However, opposition to these bills is strong among digital rights groups, some tech giants and certain marginalized communities. They argue that mandatory age verification could compromise user privacy and may be questionable in terms of accuracy.

Interestingly, while there is broad agreement on the need for stronger online protections for children, the disagreement lies in the approach. This underscores the need for a community-based, evidence-driven approach to policymaking.

As a PhD researcher at Concordia University, I have worked with anonymous age verification technologies and collaborated with relevant experts across social, legislative, and technical fields. I also voluntarily consult with the Digital Governance Council of Canada, contributing to the development of Canadian standards for age-verification technologies. Drawing on these experiences, I believe that certain approaches are necessary, as outlined below:

Fact-based evaluation for accuracy:

While different mechanisms exist for online age verification, the more popular methods are ID document matching, facial recognition and third-party verification. The key question surrounding these age assurance solutions is how accurate they truly are. This concern is particularly relevant for solutions like facial recognition, which claims to protect privacy.

However, accuracy is not always a straightforward metric. The most common measure used is the Mean Absolute Error (MAE), which indicates the average difference between the actual and predicted ages. Recent data from a leading age verification provider shows MAE values of 1.4 years for 6-17 years-old users. So, while these solutions may not precisely deter-

mine exact ages, their strength lies in accurately identifying age groups or thresholds. For example, if the threshold is set at 18 years, the solution's value hinges on its accuracy around that critical age range. This brings us to an essential consideration regarding threshold age.

Meeting diverse needs:

In Canada, age regulations are governed by federal, provincial, and municipal authorities. Federal law sets the age of majority at 18. Accordingly, Bill S-210 proposes setting 18 as the minimum age for accessing adult content online. Provincial and territorial regulations for age-restricted products vary. Most provinces and territories set the minimum age for tobacco and alcohol at 19, except for Alberta, Manitoba, and Quebec (alcohol at 18), and Saskatchewan (tobacco at 18). For Cannabis, the minimum age is generally 19, with only Quebec setting it at 21. Therefore, when assessing the accuracy of age-assurance solutions, it is crucial to take these variations into account.

Focusing on community:

Age verification is a vital component of child protection but is not a standalone solution. Tools such as parental controls, public education and awareness campaigns, and other strategies can either complement or substitute age verification methods to enhance online safety for young people. Therefore, adopting a 'user-first' approach is essential.

While conducting data collection for my research on age verification using Electrocardiogram (ECG) from smartwatches, I observed a range of opinions among users. Many, from young individuals to seniors, expressed a preference for biometric solutions for age-verification. However, some users were concerned about the safety of their data. This experience was enlightening, challenging the traditional notion that younger people are more tech-savvy and seniors are relatively less so.

Privacy should be user-determined:

Ensuring the highest level of data security in age-verification solutions is crucial. Bill S-210 aims to implement reliable age verification methods that collect personal information solely for verification purposes, with the data destroyed immediately after verification. However, users should have the freedom to choose their preferred option. When multiple choices are available, users can select the methods they find most comfortable. For instance, the EUCONSENT project, which conducted a pilot study with 2,000 participants across five European countries in 2022, found that 68% of participants preferred facial estimation as their method of online age verification.

The debate surrounding age verification in Canada, highlights the complex interplay between protecting minors, respecting individual privacy, and technological advancements. Ultimately, the path forward requires a delicate balance, which can only be achieved through continued dialogue, evidence-based policymaking, and a willingness to adapt with circumstances. It will be crucial for all stakeholders to work collaboratively, ensuring that any implemented solutions are not only effective in protecting minors but also respectful of the diverse needs of the Canadian population. Only that way, we can create a solid example of how digital technology can both drive and respond to emerging needs of the community.

