

The Personalized Economy

A \$30 billion boost to Canadian competitiveness
from personalized ads

An Implement Consulting Group study commissioned by Google

October 2026



Preface

This report assesses the contribution of personalized advertising to Canada's competitiveness and consumer value.

- Digital advertising has grown around by 7% per year since 2014 and is now the largest advertising channel in Canada.
- In 2024, digital advertising spending in Canada amounted to \$18 billion. Within digital advertising, this report focuses on digital display ads and the benefits of personalization.
- The report relies on Canadian market data from several sources, including IAB Canada, the Canadian association for the digital marketing and advertising ecosystem.
- The report conducts an assessment of peer-reviewed academic studies of the impacts of personalized ads in Canada and globally. This includes recent work using 2025 Canadian data to estimate the economic value advertisers receive from personalized ads. The estimates are based on data from millions of ad transactions from real-time auctions including recorded sales prices.

Contributors

The authors are thankful to Dr. Garrett A. Johnson from Questrom School of Business Boston University for valuable discussions and input.

In developing the report, we have furthermore benefited greatly from discussions with Google experts.

Authors

This report has been prepared by the Implement Consulting Group's economics team on behalf of Google. The authors of the report are Martin H. Thelle, Hans Henrik Woltmann, Laura Marie Knudsen, and Benedikte Østergaard.

Table of Contents

Executive summary	4
.....	
1. The advertising market in Canada	5
.....	
2. The economic gains from personalized advertising	12
.....	
3. Value for consumers	19
.....	
4. Value for small and medium businesses (SMBs)	24
.....	
5. Value for publishers	29
.....	
6. The outlook for AI-enhanced personalized advertising in Canada	34
.....	
7. Policy debate on personalized advertising	38
.....	
Conclusion	39
.....	
Annex	41

The Personalized Economy

An annual \$30 billion boost to Canadian competitiveness from personalized ads



Personalized ads are an efficient and effective form of advertising. They help Canadian businesses grow and help fund accessible, affordable and diverse online services for consumers. Strengthening Canada's competitiveness in a global digital economy requires that Canadian businesses have access to effective and innovative tech-driven solutions, including within digital advertising tools.

Boosting competitiveness and consumer value today

Personalized ads...

- **Help Canadian businesses grow:** Personalized ads support up to \$30 billion in additional advertising-driven revenue for Canadian businesses annually, contributing \$14 billion to GDP and supporting 100,000 Canadian jobs.
- **Empower SMBs:** SMBs account for around 55% of total business revenue in Canada annually. Personalized advertising supports up to \$20 billion in revenue for Canadian SMBs, helping them to compete against larger business, grow, create jobs and expand internationally.
- **Support media diversity and plurality:** Personalized ads enable publishers to earn more by increasing the value of ad inventory, generating an estimated \$3 billion in revenue for Canadian publishers annually.
- **Inform consumers and support accessible, affordable and diverse online services:** Personalized advertising helps fund online content and provides consumers with relevant information, supporting informed purchasing decisions. Nearly three in of four Canadian consumers prefer digital ads that are relevant to their interests.

Annual gain today



Enhancing future competitiveness in a digital world

Generative and agentic AI will power digital advertising. By 2030, AI-enhanced personalized advertising could create up to \$60 billion in annual revenue gains for Canadian businesses.

This requires a policy framework that:

- **Puts innovation first:** Personalized advertising is an efficient form of advertising, and its contribution to Canada's competitiveness and economic growth will increase with the use of generative and agentic AI in advertising.
- **Balances innovation with consumer protection:** New forms of digital advertising enabled by AI must balance user demand with privacy.
- **Avoids “contextual only” scenarios that put competitiveness at risk:** Relying solely on contextual ads would put the current annual revenue gain of \$30 billion and future gains at risk.
- **Maintains proportionate and coherent regulation:** Building on Canada's existing accountability-based privacy framework can protect consumers while allowing businesses to innovate and remain competitive.

In 2030





1

The advertising market in Canada

Advertising spans both digital and non-digital formats and is typically targeted at specific consumer segments via platform or website context or user behaviour

Advertisers use digital and non-digital formats to reach potential customers. Digital ads include display excl. social, social, search, classified and directory ads, and can use either personalized or contextual targeting methods. Contextual ads work best on topic-specific sites, while personalized ads are often more valuable on sites with broader audiences.

Format of advertisement

Where the ads are shown

DIGITAL	Display excl. social		Non-social display ads (incl. video and banners) run on websites and apps where publishers sell ad space directly or via ad-tech intermediaries.
	Social		Social ads are paid ads on social media platforms that blend into users' feeds and profiles, using first-party behavioural data to reach specific audiences.
	Search		Search ads are delivered by search engines such as Google, Yahoo and Bing based on users' search queries.
	Other digital		Classified and directory ads appear on websites dedicated to specific product categories, often for consumer-to-consumer sales, but also for advertisers.
NON-DIGITAL	Non-digital		Non-digital ads cover all advertising not delivered digitally, including radio, TV, newspapers, outdoor banners, transit ads and direct mail.

Targeting method

Digital ads can be targeted to consumers using different methods



Contextual

In contextual advertising, advertisers show ads based on users' presumed interest, inferred from the website they are visiting. Using keywords and topics advertisers can target their campaigns to specific ad groups.

Example: a Canadian travel blog article about winter trips to Whistler could show ads for ski gear.



Personalized

In personalized advertising advertisers show ads to users based on characteristics such as their online behaviour, location or demographics. As third-party cookies are phased out, advertisers are relying more on first-party data, especially on social media.

Example: a young professional in Vancouver who engages with tech content could visit the same Canadian travel blog article about winter trips to Whistler and see an ad for a new smartphone available in Canada.

Advertising serves a vital role in the market economy

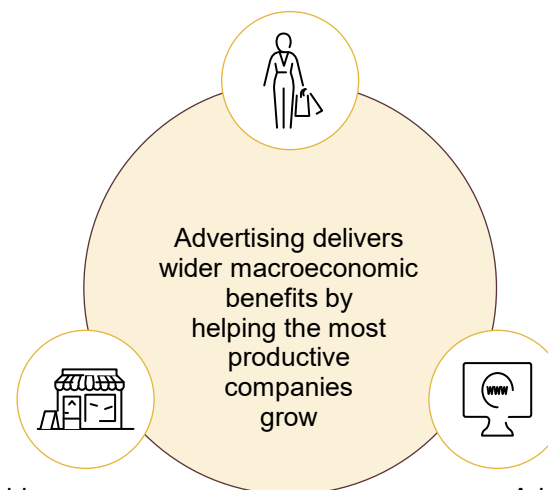
- Advertising plays a central role in a well-functioning market economy by informing consumers, enabling businesses to reach relevant customers in Canada and globally, and providing publishers with a vital revenue stream.
- The value of advertising can be measured in several ways - one is its direct contribution to GDP, and another is the broader efficiency it creates across an entire economy.
- Research from the Canadian Marketing Association estimates that marketing activities and occupations contribute around \$130 billion to Canada's GDP annually, equivalent to 4.6% of national GDP.¹
- Research from several academic sources indicates that advertising improves how resources are used across the economy.² A 2024 research paper, utilising US data, estimates these efficiency gains support around 4% of GDP.³ This economic gain is additional to the direct contributions from the industry (as described above).

Advertising helps to match consumer needs with business offerings

- Advertising improves consumer decisions by making it easier to discover relevant products, prices, and quality.
- More effective ads help consumers find suitable goods and services more quickly.
- Poorly targeted or irrelevant ads can create friction, leading to feelings of intrusion and privacy concerns.

Advertising helps businesses reach new customers, generate growth and expand internationally

- Advertising drives business growth by reaching new and relevant customers, supporting brand awareness, engagement, and sales, at home and internationally.
- More effective ads improve outcomes by increasing relevance, conversions, and economic performance.
- Poorly targeted or repetitive ads reduce value, risking negative user perceptions and weaker results.



Advertising creates revenue for publishers

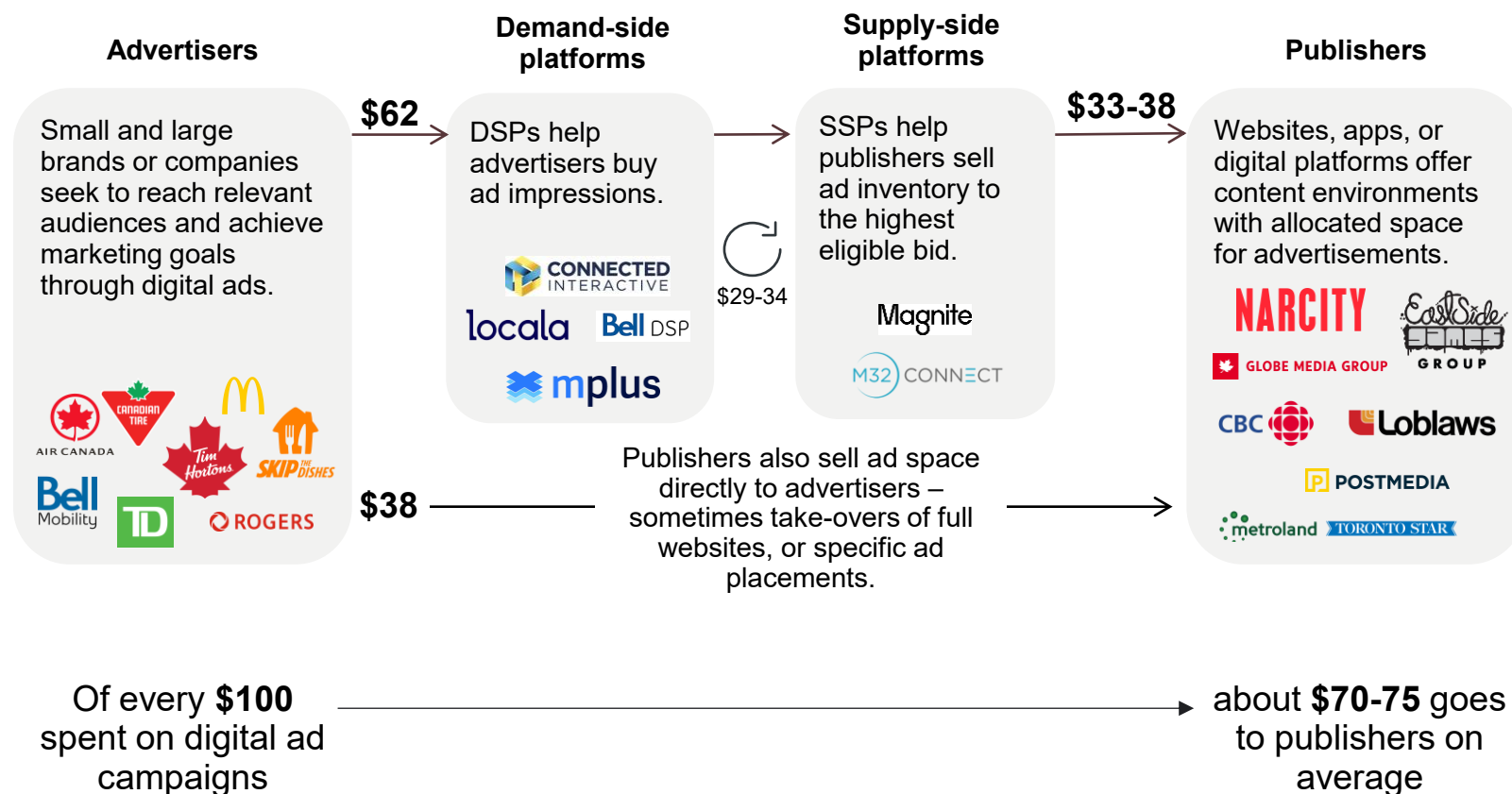
- Advertising funds content, becoming more important as traditional revenues decline.
- More effective ads increase the value of ad space, supporting higher publisher revenue and audience retention.⁴
- Excessive or poorly balanced ads can harm user experience, reducing engagement and traffic.⁵

Note: 1) See Signal49 (2026). 2) See e.g. Afrouzi, Drenik and Kim (2023), Baslandze et al. (2023). 3) See Cavenaile et al. (2024). 4) Riedel et al. (2023) find that intrusive ads make users feel they have lost control, driving them away from the platform. 5) Goldstein et al. (2014) find that annoying or intrusive ads cause website abandonment, imposing a measurable economic cost on publishers through lost impressions.

Three-quarters of all advertising spend ends up with publishers

- Most digital ads are programmatic, i.e., sold through real-time auctions via ad exchanges that connect advertisers to publishers. The share of programmatic is around 62% for display ads in Canada.¹ The remaining 38% flows directly to publishers.
- Typically, advertisers use a mix of demand-side platforms (DSP) to manage their ad campaigns, while publishers use a mix of supply-side platforms (SSP) to manage their ad inventory. Based on data from Canadian advertisers' organisations, we estimate that a little over half of this spend flows towards publishers, i.e. \$33-38.²
- In total, \$70-75 of every \$100 spent on digital ads goes to publishers. For publishers, the value of ad space depends on balancing monetization with user experience. They have limited scope to increase ad space without making the site less attractive and risking a loss of users. Publishers are keen to attract advertisers with the highest willingness to pay.

Ads are sold through programmatic auction-based platforms and directly to advertisers.
Example of actors include...



Note: 1) See IAB Canada (2025) while the share is 83% in the US, cf. PwC/IAB(2024). 2) Publisher selling ads through programmatic services secure 54-61% of advertisers' ad spend according to the Association of National Advertisers, Association of Canadian Advertisers, Ebiquity and AD/FIN (2017).
Source: Implement Economics analysis based on the Association of National Advertisers, Association of Canadian Advertisers, Ebiquity and AD/FIN (2017).

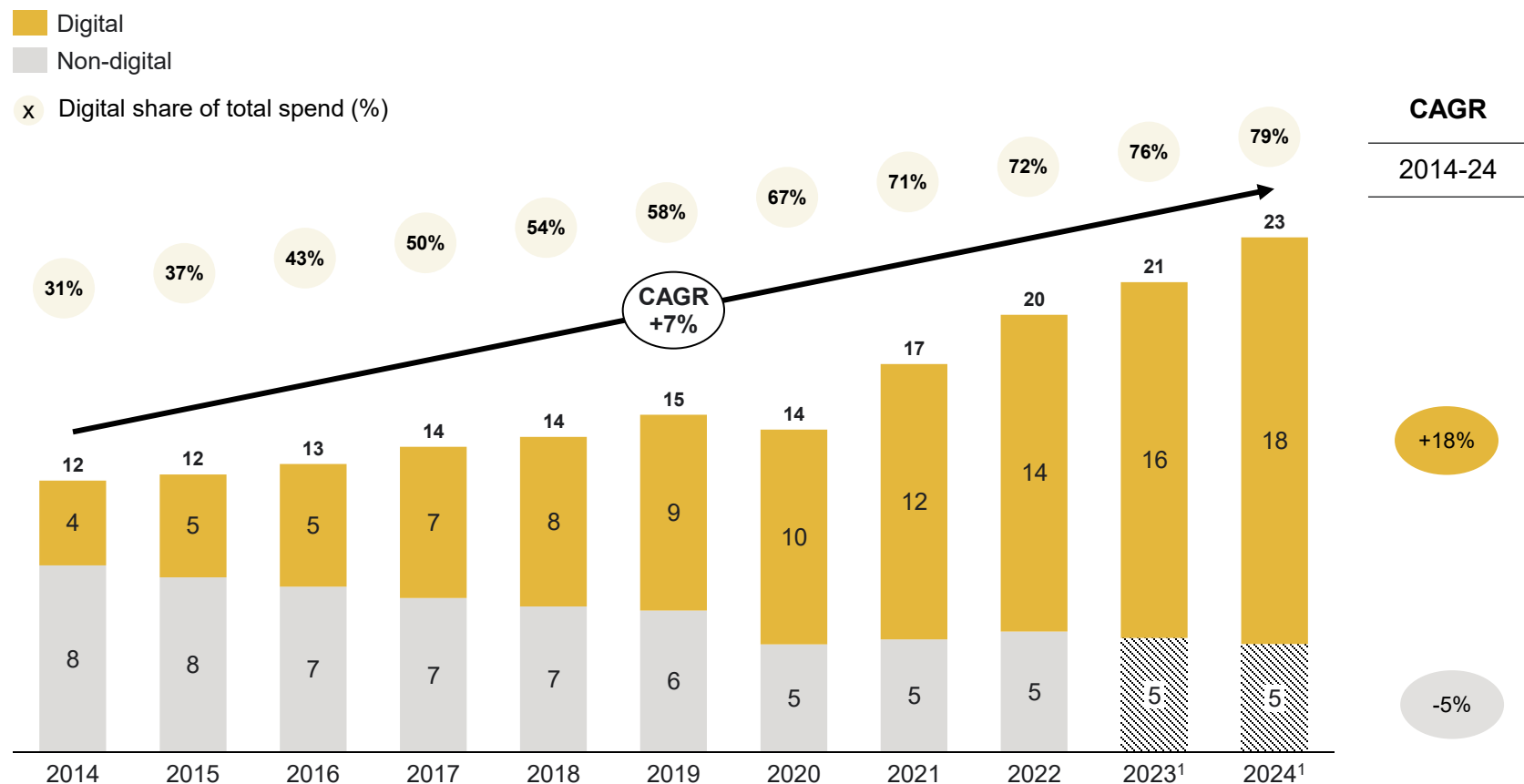
Digital advertising has transformed the advertising market

- Digital advertising has transformed the advertising market in Canada and across the globe, through the last decade. Consumer behaviour and the much more efficient advertising methods available online have driven this transformation.
- Overall ad spend has increased by \$11 billion since 2014, corresponding to an average annual growth rate of 7%.
- The growth is driven by digital ad spend, which has seen a significant increase in its share of total advertising spend from 31% to 79% in ten years.

Data is based on IAB Canada

IAB Canada is the association for the digital marketing and advertising industry. IAB Canada reports annually on online advertising revenue across 13 Canadian regional markets.

Ad spend in Canada
CAD billion



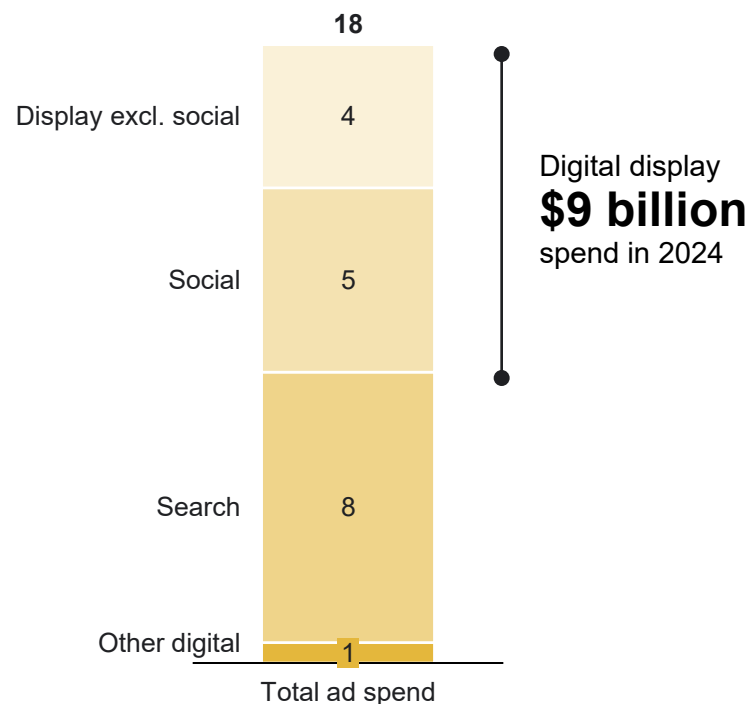
Note: 1) Non-digital ad spend for 2023 and 2024 is extrapolated using the 2012-2022 compound annual growth rate (CAGR) of -5%. This implies that non-digital media account for 21% of total ad spend in 2024. This is broadly consistent with comparable estimates reported by The Association of Broadcasters (2025) and Emarketer (2024), although differences may reflect variation in source definitions and methodology.

Source: Implement Economics analysis based on IAB Canada (2025), IAB Canada (2024), IAB Canada (2023), IAB Canada (2022), IAB Canada (2021), IAB Canada (2020), IAB Canada (2019) and ThinkTV (2023).

Digital ad spend totalled \$18 billion in 2024, with half spent on digital display

- \$18 billion of the total ad spend in Canada was digital in 2024. Digital ad spend is primarily allocated to search, social and other display ads.
- In total, digital display ads account for half of digital ad spend, corresponding to \$9 billion. Digital display ads include social, video and banner formats.
- Display ads excl. social account for 23% of digital ad spend, social display ads account for 30% and search accounts for 44%.
- Other digital ads include classifieds, directories, audio and digital out of home ads.
- Younger generations use social media as an integral part of daily life and rely on it more heavily than older generations for content consumption, supporting a continued increase in the share of digital advertising.

Digital ad spend in Canada, 2024
CAD billion



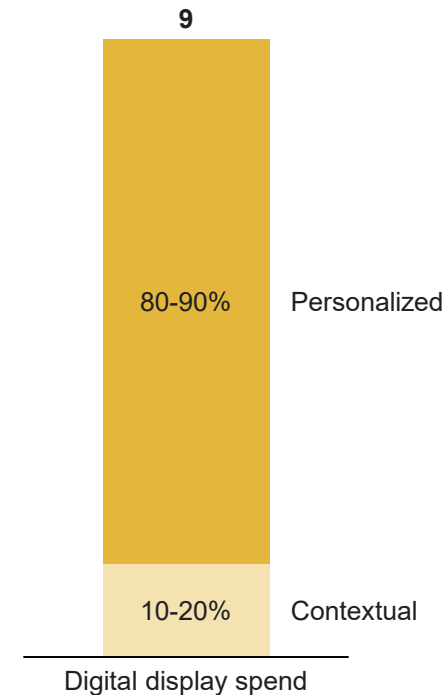
Personalization in digital ads

- We focus on digital display ads, as personalization has a significant impact on their effectiveness, supported by market data and empirical studies.
- Although search ads also benefit from personalization, their efficiency gains are typically smaller than those of display ads.

Personalized ads comprise the vast majority of digital display ads in Canada

- Third-party cookies have historically been an important personalization tool, but they are only one of several mechanisms used today.
- The market is also shifting toward first-party data, authenticated audiences, platform ecosystems etc., with 71% of companies currently expanding, or planning to expand, their first-party datasets.¹
- Using Canadian data Gu, Johnson & Kobayashi (2025) find that 72% of Chrome ad impressions contained third-party cookies. This provides a conservative lower bound for personalized advertising on the internet.
- However, this understates total personalized digital display ads, as it excludes major channels such as social media. Social media alone accounts for roughly half of digital display ad spend and is predominantly personalized through first-party data.²
- Overall, the share of personalized digital advertising in Canada is likely in the **range of 80-90%**.³

Digital display ad spend in Canada, 2024
CAD billion



Notes: 1) Based on IAB (2024). 2) If we consider that all ads shown on social media are personalized, and 72% of other digital display ads are personalized, this leads to a total of 88% of all digital display ads being personalized. 3) According to IHS Markit (2017), ~90% of all display ads were personalized in 2020, based on data from 2016.
Source: Implement Economics analysis based on IAB Canada (2025) and PwC/IAB (2024).



2

The economic gains from personalized advertising

The economic impacts of personalization within digital display advertising

This research focuses on personalized digital display ads since...



Personalized ads provide a highly efficient form of advertising

Rather than paying for mass reach, advertisers can use personalized ads to reach the subset of consumers most likely to value their product, making advertising less random and more relevant to consumers. This increases the benefits of advertising, as it ensures higher conversion rates and ultimately a higher return on ad spend for the advertiser.

ILLUSTRATIVE EXAMPLE

For a Canadian outdoor retailer, regional targeting can improve ad efficiency by focusing on showing ads to consumers in colder regions, where demand for cold-weather outdoor products is likely to be higher.



Personalized digital display ads enhance advertisers' competitiveness

Personalized digital display ads strengthen advertisers' competitiveness by improving their ability to win consumers in contested markets. Advertisers can use data-driven insights to identify demand, adapt messages to different consumer needs and respond more quickly to market opportunities, helping them win consumers in competitive markets.

ILLUSTRATIVE EXAMPLE

A hypothetical small Vancouver running store can use personalized display ads to reach marathon runners and trail-running enthusiasts, helping it compete with national sports retailers for a niche audience.

The efficiency of personalized ads in Canada benchmarked against selected relevant evidence

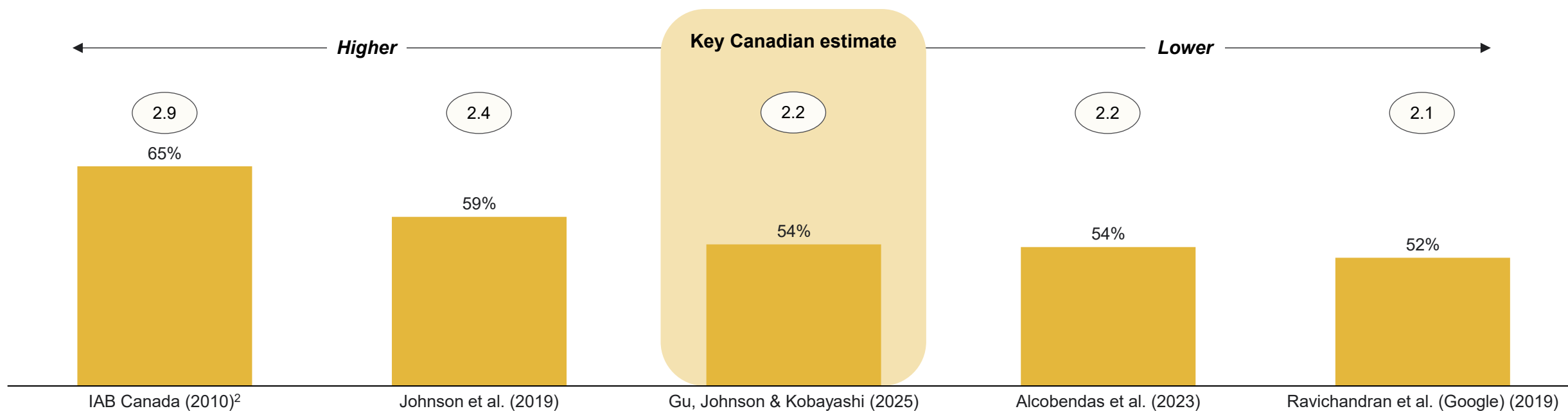
The literature reviewed covers both Canada and other markets. We base the analysis on the 54% efficiency estimate from Gu, Johnson & Kobayashi (2025), as it is the most recent Canada-specific estimate. Although the literature spans estimates ranging from 52% to 65%, these differences largely reflect variation in geography, time, and data sources. The studies shown are based on very large amounts of actual ad transactions. A small number of studies find substantially lower effects, but these typically rely on smaller samples or a single specialised publisher.¹

Efficiency difference between personalized and contextual display ads

%

■ Percentage decrease in price for contextual compared to personalized ads

Implied relative price difference



Analysis based on data from...



Note: 1) See the [Implement Consulting Group \(2025\)](#) for a comprehensive review of the literature. 2) IAB Canada refers to a ~65% uplift in advertising effectiveness from targeted (behavioural) advertising in its submission to the Office of the Privacy Commissioner of Canada. This estimate is not directly sourced in the submission but likely derives from Goldfarb & Tucker (2011): Privacy Regulation and Online Advertising, who find in 'Privacy Regulation and Online Advertising' that restrictions on targeting reduce ad effectiveness by around 65%, often interpreted as the relative uplift from targeting.

Advertisers gain up to \$30 billion from using personalized ads instead of contextual ads

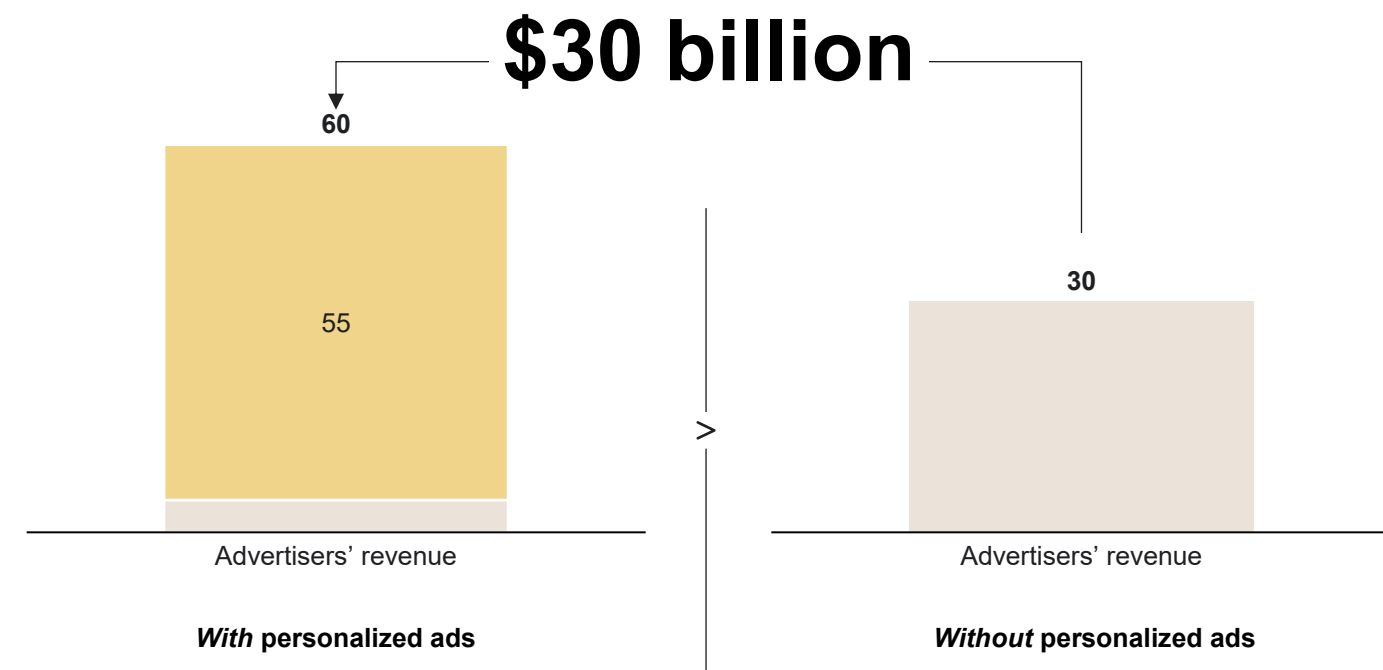
To estimate the value of personalized ads, we estimate **the revenue gain** from using personalized ads compared to contextual ads.¹ We apply the efficiency difference of 54% between personalized and contextual ads and a ROAS ranging between 3 and 6 (see the following pages for details). We find an estimated annual revenue gain from personalized ads of between \$13 billion (low end) and \$30 billion (high end).²

Advertisers' revenue from digital display ads in Canada, 2024

CAD billion

Revenue from personalized ads Revenue from contextual ads

HIGH-END ESTIMATE



The revenue gain from personalized ads is estimated by comparing advertiser spend on ads and the related revenue in two different scenarios.

With personalized ads

Advertisers can choose between using personalized and contextual ads. We estimate that they allocate 80-90% of spend to personalized ads (see p. 9), generating \$55bn in revenue. The remaining spend on contextual ads generates a further \$5bn.

Without personalized ads

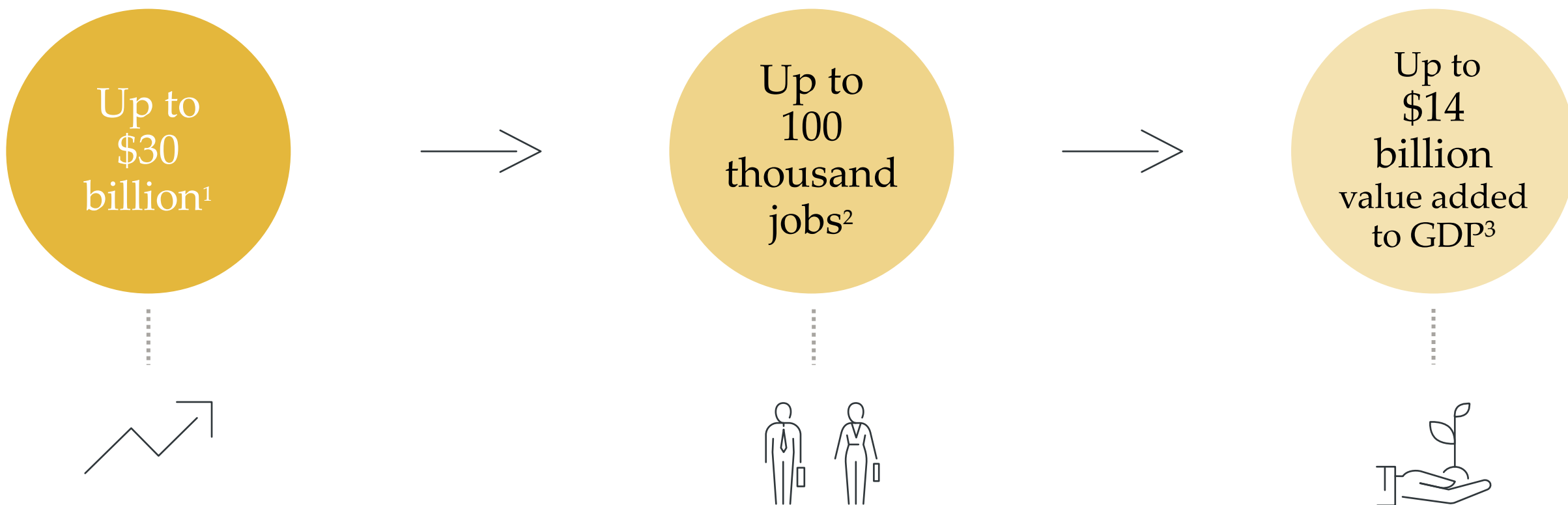
If advertisers were restricted to using contextual ads only, the same total spend would generate just \$30bn in revenue. Contextual ads are less efficient, producing a lower return on every dollar spent (see the following pages for detail).

The \$30 billion difference is the additional advertising revenue due to the efficiencies of personalized ads.

Note: Current contextual ads are assumed to have a ROAS close to the return on personalized ads – reflecting that the price difference captures much of the efficiency difference. In the counterfactual situation, however, we assume a lower ROAS for the spend shifted to contextual ads, given that the alternative must be worse than paying the premium price for personalized advertising. 1) We quantify the first-order efficiency gains from personalized ads. 2) See annex for more detail.
Source: Implement Economics analysis based on IAB Canada (2025).

The annual revenue gain of \$30 billion from personalized ads corresponds to \$14 billion in GDP and supports 100,000 jobs

The availability of personalized ads generates an estimated \$13–30 billion in additional revenue for advertisers. This corresponds to 40,000–100,000 jobs across all industries and a direct contribution of \$7–14 billion to Canadian GDP. This support for economic activity enhances overall market efficiency and fosters growth, strengthening Canada's position in the global market.



Note: 1) When assuming an efficiency difference of 54% and a ROAS of 6, the upper estimate is \$30 billion, while it is \$13 billion under the assumption of an efficiency difference of 54% and a ROAS of 3. 2) Based on the average turnover per person employed in Canadian SMBs in 2024. 3) Based on the gross value added in 2024, calculated as gross domestic product at basic prices divided by turnover in all industries in Canada. Source: Implement Economics analysis based on Statistics Canada.

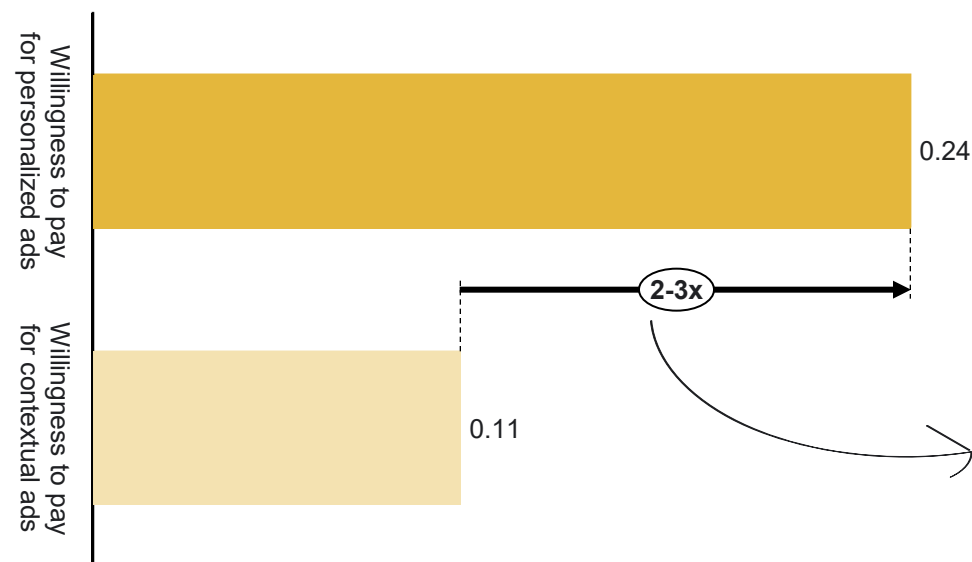
Personalized ads are up to 2.5 times more efficient than contextual ads

- Research shows that advertisers are willing to pay up to 2-3x more for personalized ads than for contextual ads. Most studies using Canadian and US data fall within the 2-3x range when comparing like-for-like audiences while holding other factors constant. See the following page for more details.
- These estimates are based on advertisers' willingness to pay to reach a given user group. This is expected to reflect the anticipated return on ad spend and, therefore, the relative effectiveness of personalized versus contextual advertising.
- The underlying evidence draws on a range of empirical approaches, including randomized controlled trials, observational studies, and economic modelling frameworks.
- Our review of research based on Canadian, US and global data suggests an efficiency uplift of 2-3x for personalized advertising relative to non-personalized alternatives.

Advertisers' willingness to pay CPM/CAD

Method and data:

Researchers estimate advertisers' willingness to pay for personalized ads using data from millions of ad transactions in real-time auctions, including observed clearing prices. Using advanced estimation techniques, they conduct like-for-like comparisons to infer what advertisers would have been willing to pay for personalized versus contextual ads.



Higher willingness to pay reflects...

That advertisers must expect a higher **return** when investing in personalized advertising compared to contextual advertising.

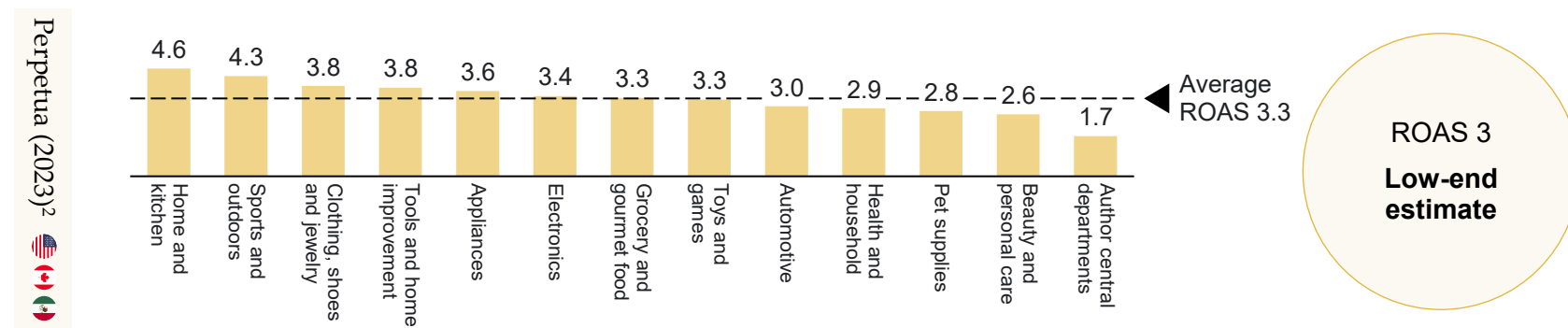
This corresponds to an efficiency difference of 50-65%.

Note: CPM (cost per mille) refers to the price per 1,000 ad impressions. The estimated efficiency difference implies a 50% to 65% lower willingness to pay for contextual advertising when making like-for-like comparisons of access to specific user groups for a given set of advertisers. The CPM figures presented are based on the average price in Johnson et al. (2019), projected to 2026 and converted from USD to CAD. The following page gives an overview of relevant studies. See [Implement Consulting Group \(2025\)](#) for a full overview of the literature review.

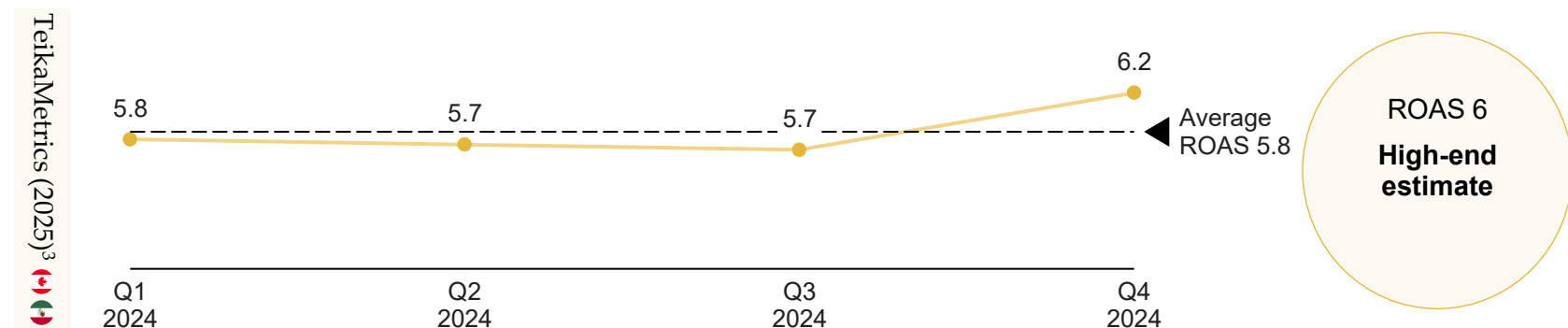
Digital advertising has a high return on spend

- Advertising performance can be assessed using several related metrics, including ROAS and ROI. ROAS, or return on ad spend, measures the *gross revenue* generated per Canadian dollar spent on advertising and is commonly used to assess campaign efficiency. ROI, or return on investment, measures *net revenue* generated per Canadian dollar spent on advertising.
- ROAS varies significantly across platforms, industries, and time.¹ Perpetua (2023) finds an average ROAS of 3.3 for advertising campaigns in North America across all Amazon product categories.² TeikaMetrics (2025) find a ROAS of 5.8 across all products sold and advertised through Amazon in Canada and Mexico.³
- We base our calculations on these sources but assume, conservatively, an average ROAS of 3 to 6.

Return on advertising spend (ROAS) for digital advertising across product categories in North America, Q2 2023
Revenue per CAD spent on ads



Quarterly trend in return on advertising spend (ROAS) for digital advertising in Canada and Mexico
Revenue per CAD spent on ads



Note: 1) Tadelis et al. (2023) find an average ROAS of 3.3 across more than 700,000 ad campaigns on Meta in the United States. World Advertising Research Center (WARC) (2024) find a median ROAS of 4.3 across a range of product categories and advertising campaigns from 2000-2023. 2) Perpetua's Amazon Benchmarks Q2 2023 bases ROAS estimation on anonymized performance data from advertising campaigns in the United States, Canada, and Mexico. 3) Teikametrics estimate ROAS across thousands of Amazon ad campaigns across regions and categories.
Source: Implement Economics analysis based on WARC (2024), Perpetua (2023), Teikametrics (2025) and Tadelis et al. (2023).



3

Value for consumers

Personalized ads provide consumers with perceived benefits, but also create feelings of intrusion and privacy concerns

Personalized ads provide consumers with perceived benefits...



Informed purchase decisions

Personalized ads are tailored to individuals' preferences and interest, helping consumers find better and more relevant products and make more informed purchase decisions.



Easier to find products and prices

Personalized ads lower search costs by reducing the time customers need to search for products matching their interests.¹



Access to content at little or no cost

Personalized advertising enables media platforms to deliver editorial content at minimal cost, securing consumers' access to information. As such, it supports media platforms while customers become accustomed to paying for online content.

... but can also leave consumers with data use and privacy concerns



Data use concerns

Data use concerns arise when consumers are uncomfortable with how their data is collected, combined and used to personalize ads, reducing their sense of control and acceptance of data-driven advertising.



Privacy concerns

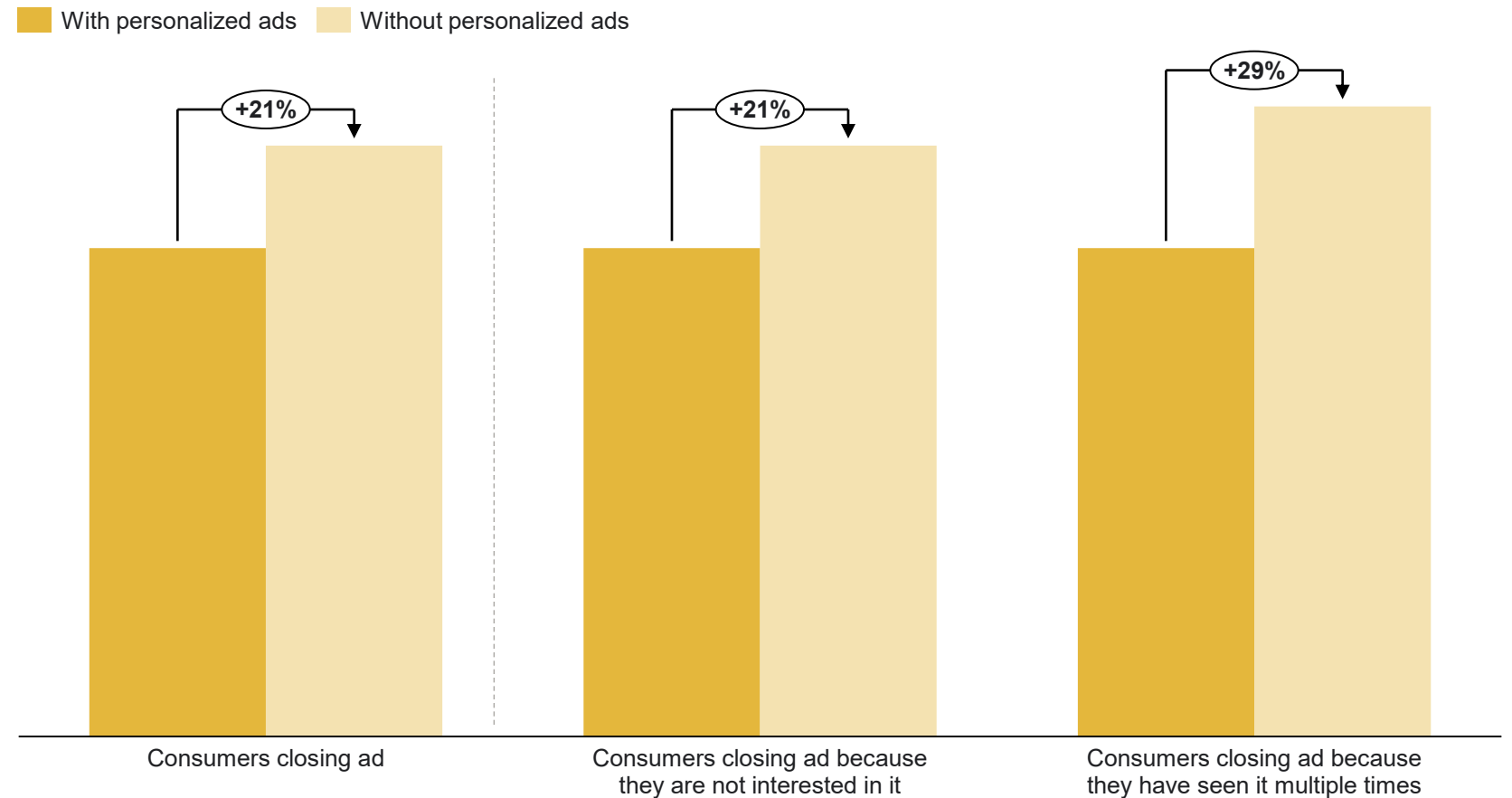
Privacy concerns can arise in consumers when they worry about the misuse of their personal data, impacting their trust and willingness to engage with personalized ads.

Consumers value targeted ads more than the alternative

- Research shows that consumers are more likely to close ads when they are not personalized. Consumers can close ads if they don't want to see them. One reason for closing an ad is that it is not relevant to the consumer.
- In a randomized controlled experiment, Ravichandran & Korula (2019) disabled publishers' availability to personalize ads for a group of randomly selected consumers.¹ They found that consumers close ads far more often when ads are *not* personalized (+21%).
- Consumers are also much more likely to close ads they have already seen before when personalization is disabled (+29%).
- Consumers preferring personalized ads over other types of ads is further supported by higher click-through rates.²

Consumer behaviour on interactions with ads

%



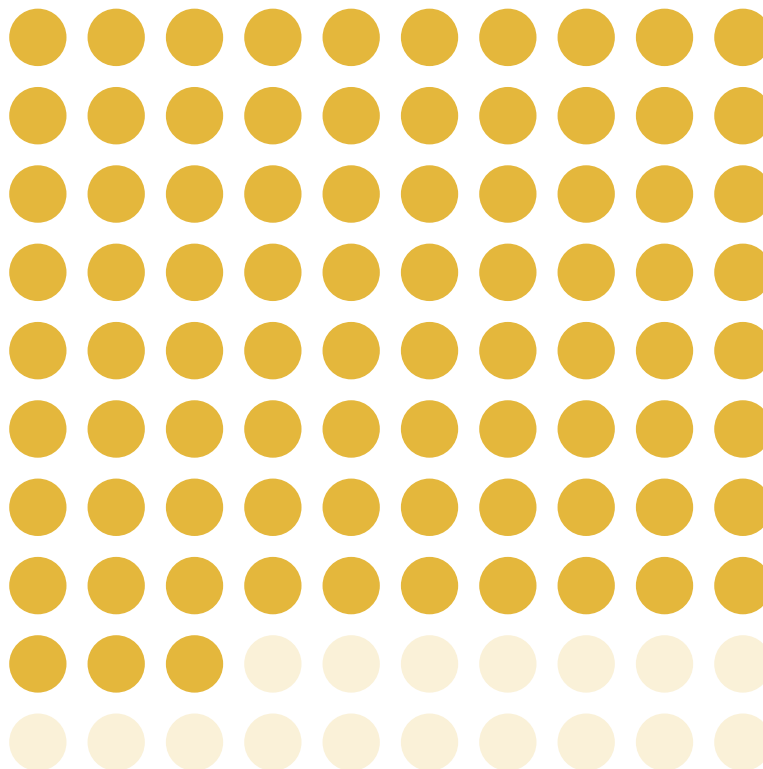
Note: 1) Based on data from the top 500 global publishers using Google Ad Manager. 2) See [Tucker \(2024\)](#).
Source: Implement Economics analysis based on [Ravichandran & Korula \(2019\)](#). See [EU-report](#) for more detail.

Consumers value news, but are still getting used to paying for it

- There is a clear gap between Canadians' interest in news and their willingness to pay for it.
- In 2025, 83% of Canadians said they were interested in news, but only 14% stated that they paid for access.
- Among non-paying Canadians, 76% said that none of the proposed measures would encourage them to pay, or that they did not know what would.¹
- Canadians' strong interest in news does not translate into a comparable willingness to pay for online news. This limits the potential of subscription- and paywall-led models and means that publishers are unlikely to fund news production through reader revenue alone. This underlines the importance of complementary revenue models for publishers.

Share of Canadians interested in news in 2025

%



83%

of Canadian consumers say they are interested in news.



But only **14%** are currently paying for online news.

Note: Based on a survey of 2,031 participants. 1) Proposed measures include getting access to more than one news site for a reasonable price, getting additional services along with the news and more flexible payments.

Source: Implement Economics analysis based on [Brin et al. \(2025\)](#)

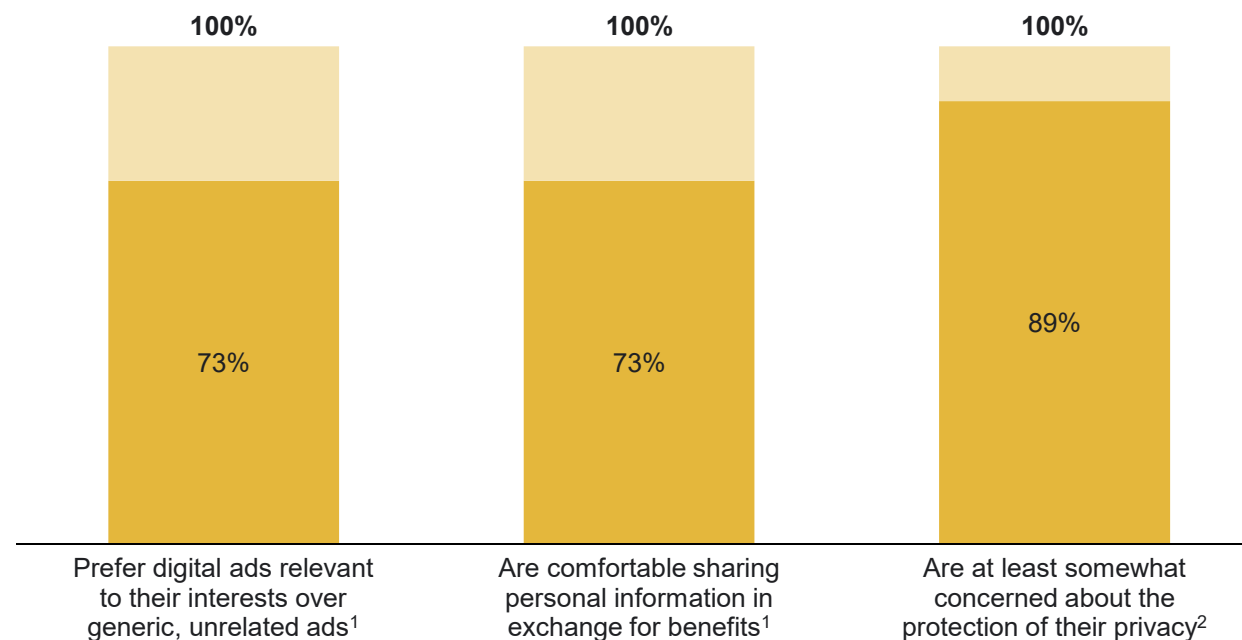
Canadian consumers value personalized ads when they trust their data will be protected

- Several academic papers have examined consumer perceptions of personalized ads and point to a dual effect. While consumers may find personalized ads useful or relevant, these ads can also trigger concerns about data use and privacy.
- This trade-off is also reflected in Canadian survey evidence. Nearly 3 in 4 Canadian consumers prefer digital ads that are relevant to their interests over generic, unrelated ads, and just as many are comfortable sharing personal information in exchange for benefits. At the same time, 9 out of 10 Canadians remain concerned about the protection of their privacy.

Canadian consumers' attitudes toward personalized advertising and privacy

%

Remaining consumers
Consumers agreeing



Alison Simpson, president and CEO of the CMA

It is clear that consumers value and increasingly expect relevance and are willing to share information when they understand the benefits and trust that their data will be protected.

Note: 1) Based on a Canadian Marketing Association (2025) survey of 1,531 Canadian adults conducted by Sago in November 2024. 2) Based on an Office of the Privacy Commissioner of Canada (2025) telephone survey of 1,500 Canadian residents aged 16+ conducted in February-March 2025.
Source: Implement Economics analysis based on Strycharz et al. (2019).



4

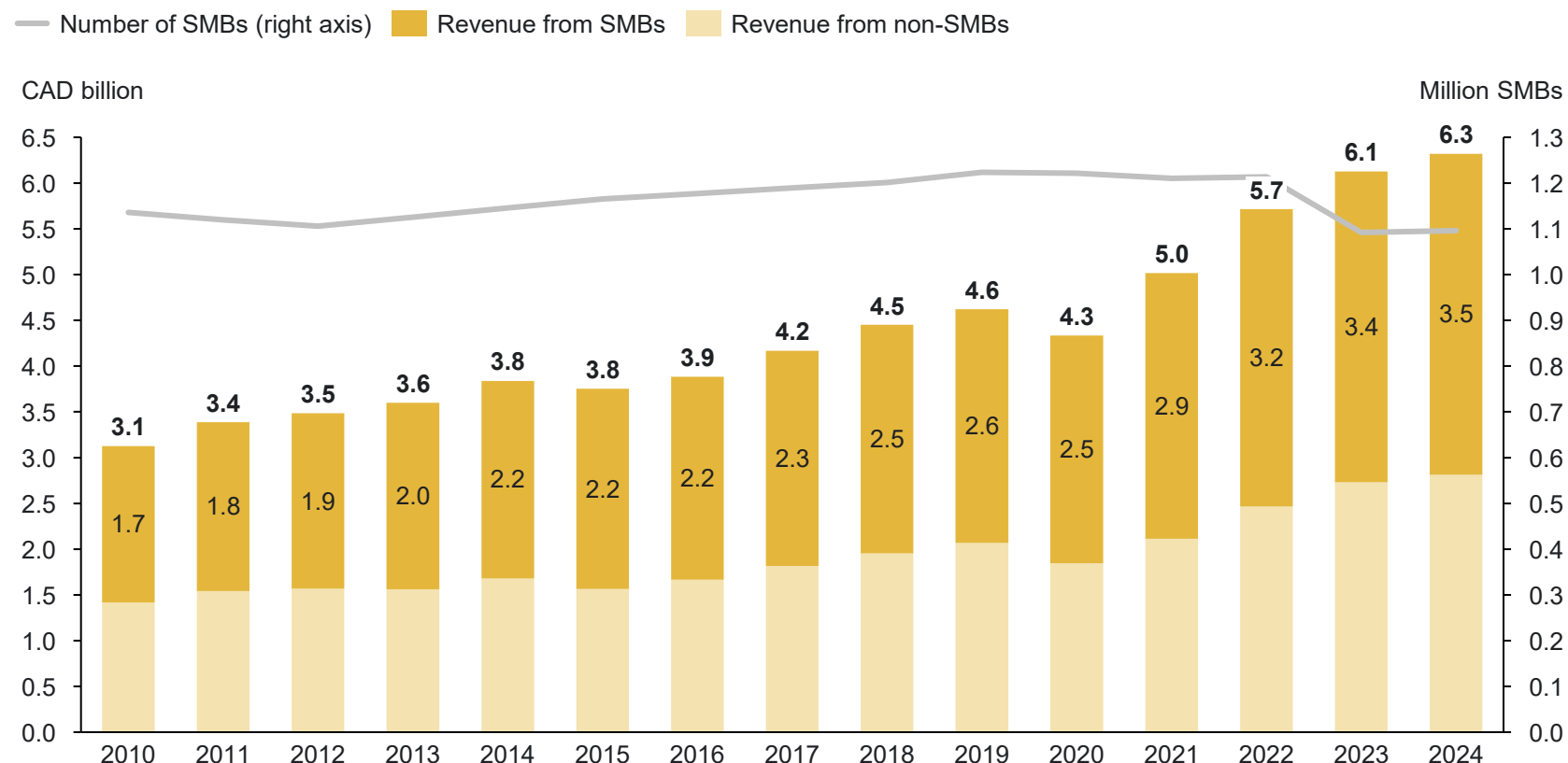
Value for small and medium businesses (SMBs)

SMBs account for more than half of all business revenue in Canada

- The number of SMBs in Canada has remained broadly stable over the past 14 years, declining only marginally at an average annual rate of 0.3%. Over the same period, SMBs have consistently accounted for around 55% of total business revenue, underscoring their importance to the Canadian economy.
- In absolute terms, SMB revenues have almost doubled over the past 14 years, reaching \$3.5 billion in 2024. This shows that, despite relatively stable firm numbers, SMBs have significantly expanded their economic footprint and continue to play a critical role in Canada's overall economic performance and growth.

Revenue and number of SMBs in Canada

CAD billion / million SMBs



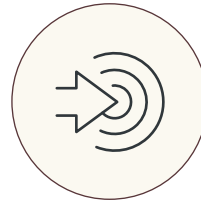
Note: The figure includes all employer businesses, and SMBs are defined as employer businesses with fewer than 500 employees.
Source: Implement Economics analysis based on Statistics Canada and Innovation, Science and Economic Development Canada's Key Small Business Statistics 2005-2025.

SMBs use personalized ads because they are cost-effective, data-driven and adaptable



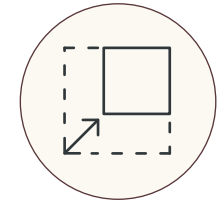
Cost-effective advertising

SMBs often have limited marketing budgets, and digital display ads offer cost-effective marketing, allowing businesses to reach relevant audiences and readily optimize campaign budgets and performance. This helps SMBs maximize their reach without overspending.



Relevant advertising

Personalized ads are more efficient because they can be targeted at specific consumers who have already expressed or shown an interest in the product type. They maximize the chance of conversion and return on ad spend.



Adaptability and scalability

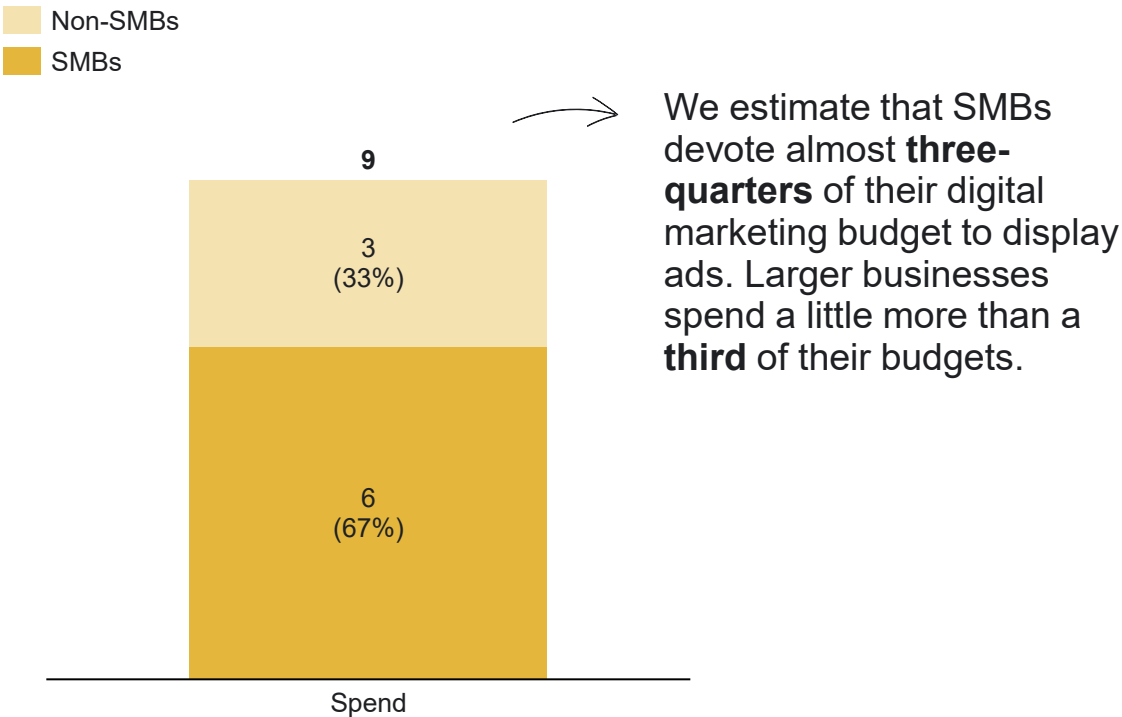
Digital display ads provide adaptability in ad formats, placements, and budget adjustments. SMBs can start with a small budget and scale up based on performance, allowing for dynamic and efficient marketing management.

SMBs rely on, and invest heavily in, digital display ads

To compete effectively with larger companies, SMBs must efficiently identify and reach new customers. As a result, SMBs allocate nearly three quarters of their digital marketing budgets to display advertising, where personalized ads help level the playing field with larger companies.

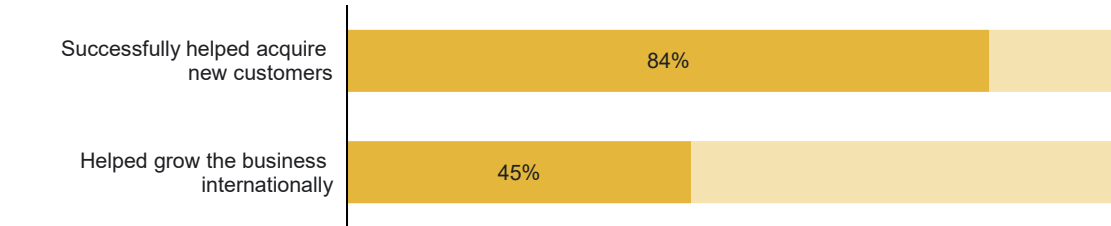
SMBs invest heavily in digital display ads...

Digital display ad spend in Canada, 2024¹
CAD billion

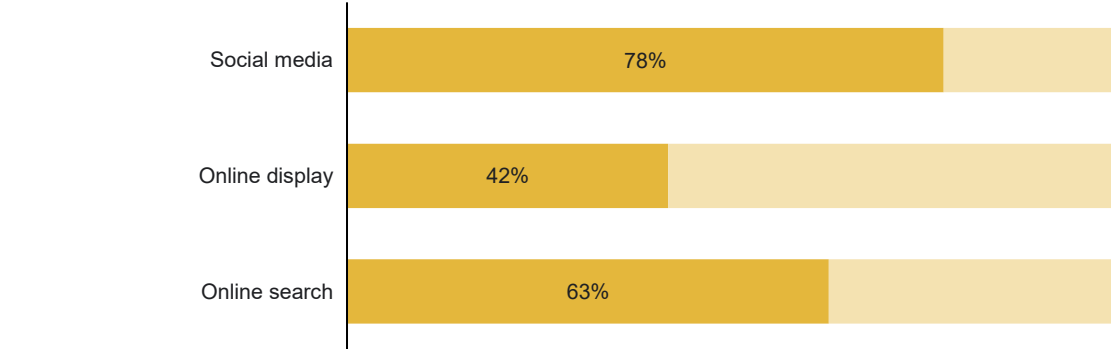


... as they find them effective in finding and reaching customers

Share of SMBs stating that advertising has²...
%



... with the most used channel being predominantly digital display²
%



Note: 1) SMBs' spend on digital ads is calculated as follows: SMBs spend \$8 billion on digital ads. SMBs spend 54% of their total ad spend on digital display ads, corresponding to directing 72% of their digital ad spend towards digital display ads. 2) Right-hand side is based on a survey of Amazon Ads of 4,138 B2C marketing decision makers at SMBs in Canada, UK, China, France, Germany, India, Italy, Japan, MENA, Spain, Brazil, Mexico, USA and Australia. The sample is nationally representative, not a sample of Amazon sellers. The data was collected between February 29, 2024 – March 20, 2024. Sources: Implement Economics analysis based on Statistics Canada, UK Department for Business & Trade (2025), IAB UK (2023) and Marketing News Canada (2024).

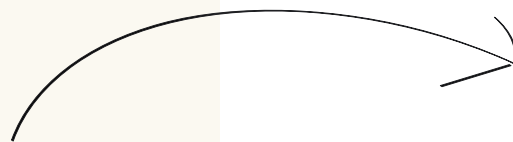
Personalized ads contribute up to \$20 billion annually to SMB revenue, supporting growth among SMBs

SMBs play an important role in overall economic growth. Many SMBs bring new goods and services to market, supporting innovation, competition, and economic activity. As a result, revenue generated by SMBs through personalized advertising is economically significant, estimated to be \$8-20 billion in Canada.¹ This corresponds to between 34,000-86,000 jobs.

Personalized advertising increases SMB revenue by...



Up to
\$20
billion



... which corresponds to



34-86
thousand
jobs²

Note: 1) When assuming an efficiency difference of 54% and a ROAS of 6, the upper estimate is \$20 billion, while it is \$8 billion under the assumption of an efficiency difference of 54% and a ROAS of 3. 2) Based on the average turnover per person employed in Canadian SMBs in 2024. 3) Based on total employment in SMBs in Canada within employer businesses in 2024.

Sources: Implement Economics based on Statistics Canada and Innovation, Science and Economic Development Canada's Key Small Business Statistics.



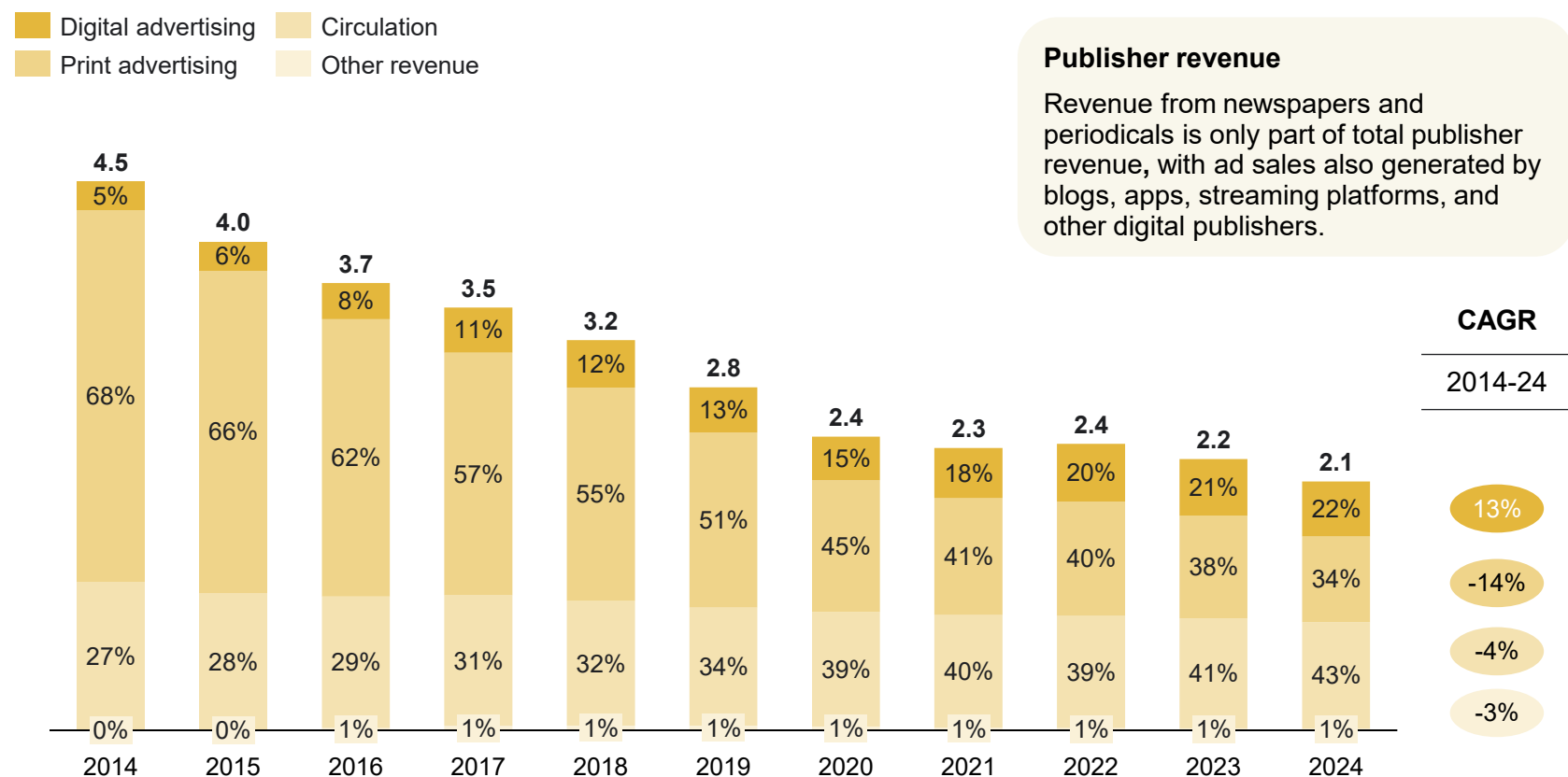
5

Value for publishers

The publishing sector is shifting from print-led to more digital, diversified revenue models

- The publishing sector is often divided into two broad publisher types: traditional publishers and digitally native publishers. Traditional publishers include established news brands and traditional mass-market publishers, while digitally native publishers are digital-first outlets built for online audiences.¹
- Across the sector, print advertising and circulation have historically accounted for a large share of revenue. However, publisher business models have evolved over the past decade, with digital advertising becoming a more important revenue source. Among surveyed digital-native news publishers in the US and Canada, half had advertising as their largest source of revenue.²
- In 2024, digital advertising accounted for 22% of revenue for newspapers and periodicals, up 17 percentage points since 2014.
- In 2025, 14% of all Canadians paid for online news, up from 11% in 2023, suggesting that most online news consumption in Canada still takes place outside paywalls, underlining the importance of digital advertising revenue for publishers.³

Operating revenue of newspaper and periodicals publishers in Canada
CAD billion



Note: Statistics Canada reports circulation and advertising sales for newspaper publishers in even-numbered years, and circulation, advertising, and custom publishing revenues for periodical publishers in odd-numbered years. For years in which data are not reported, values are interpolated as the average of the preceding and following year. 1) See [Implement Consulting Group \(2025\)](#) for full overview of publisher types. 2) See Kizer (2021) 3) See Newman et al. (2025).
Source: Implement Economics analysis based on Statistics Canada.

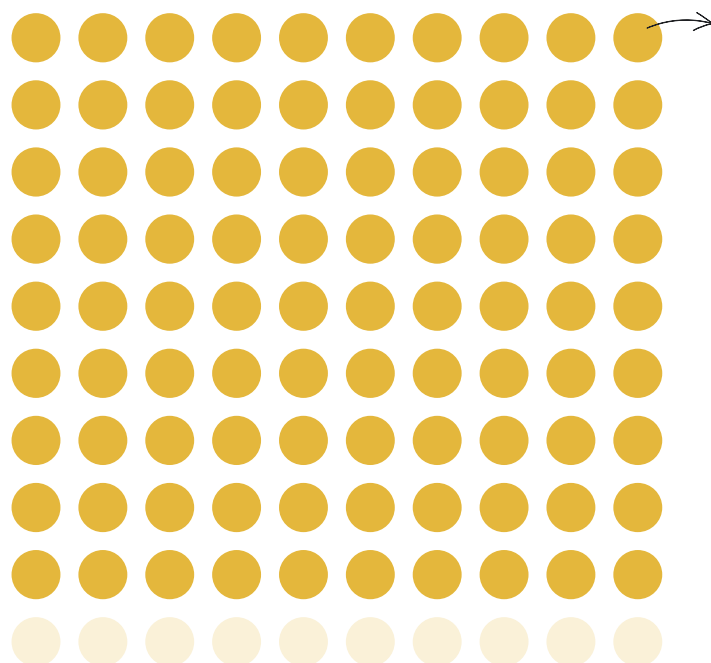
Digitally native publishers are often small and rely heavily on ad-based revenue

Digitally native publishers often operate as individuals or in small teams and leverage online tools for content creation, editing and distribution. In the past decade, they have increased their presence in the news media market. Digitally native publishers rely heavily on an ad-based business model as around 70% of their revenue comes from digital ads.

Newspaper and periodicals publishers in Canada, 2024

%

● Businesses with less than 20 employees ● Businesses with 20 employees or more



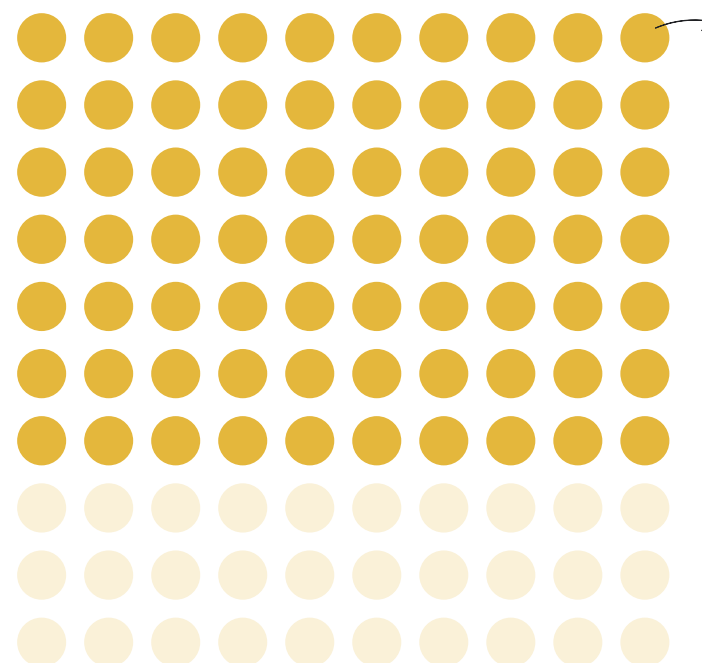
90%

of newspaper and periodical publishers in Canada have fewer than 20 employees

Operating revenue of digital newspapers in Canada, 2024

%

● Digital advertising ● Circulation and other



70%

of digital newspaper revenue stems from digital advertising

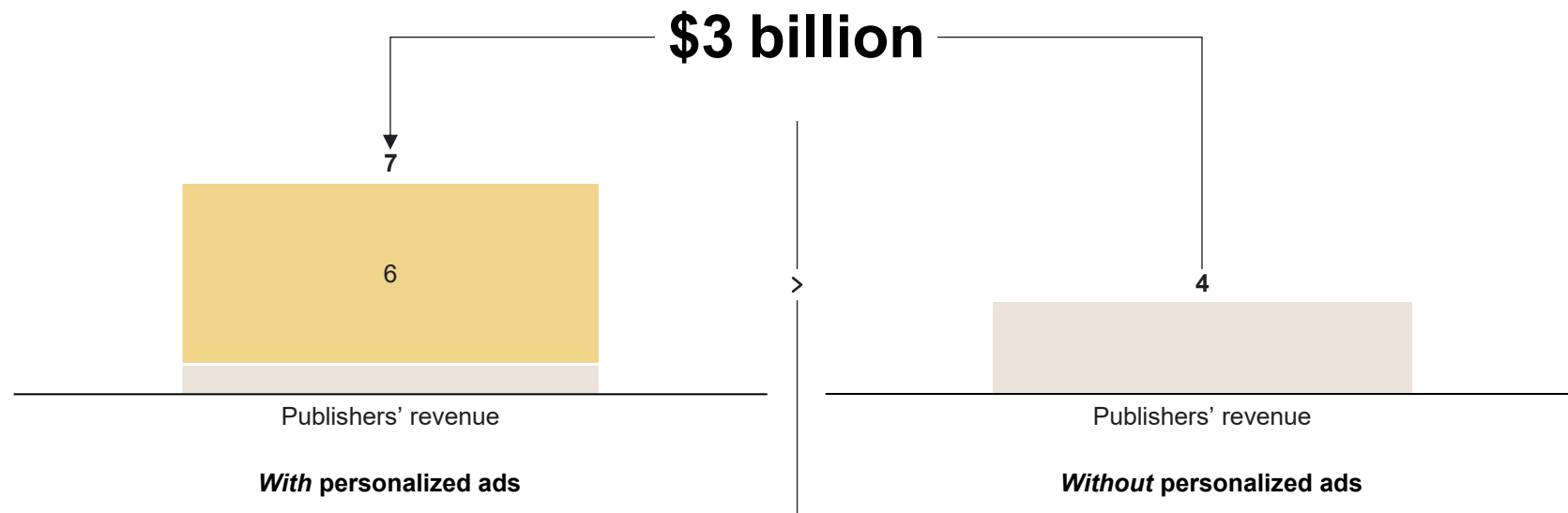
Personalized ads contribute \$3 billion to publishers' revenue

- We have estimated that publishers capture around 70-75% of digital display ad spend in Canada, or around \$7 billion (see p. 8).
- We have also estimated that 80-90% of digital display ad spend is personalized (see p. 9), so around \$6 billion of ad revenue flows to publishers from personalized ads.
- The additional value that personalized ads bring can be gauged by considering the incremental value from a situation without personalized ads. In a scenario where advertisers switch from personalized to contextual ads, and publishers sell the same amount of ad space, we estimate a revenue loss of \$3 billion across the Canadian digital publisher ecosystem.

Personalized ads contribute \$3 billion to publisher revenue

Publisher revenue in Canada, 2024
CAD billion

■ Revenue from personalized ads
■ Revenue from contextual ads

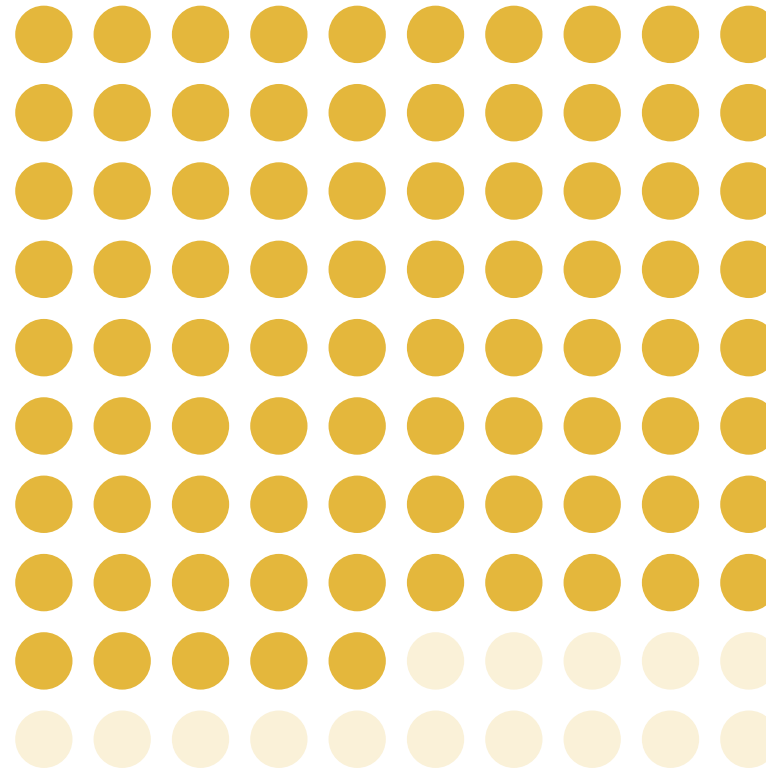


Note: 1) See [Implement Consulting Group \(2025\)](#) for more detail. 2) See Kahn (2023).
Sources: Implement Economics based on IAB (2025) and the Association of National Advertisers, Association of Canadian Advertisers, Ebiqity and AD/FIN (2017).

News publishers' digital ad revenue relies on third-party cookies

- For most publishers, personalized advertising is the backbone of today's ad-based business model and not a marginal revenue stream.
- Alternatives to the ad-based business model include paywalls and subscriptions models. These business models are not uncommon in the publishing market, as legacy publishers make greater use of this kind of models. Today, most digital native publishers' content is financed by ads.¹
- Lower ad revenues may push publishers toward paywalls and subscriptions. Since willingness to pay for news is limited, paywalls can reduce traffic and create a pricing-demand trade-off, potentially deepening revenue declines.²

Share of global news executives whose ad revenue depends on third-party cookies
%



85%

of news executives say their online ad revenue depends on third-party cookies.³

Note: 1) See INNOVATION Media Consulting Group (INMA) (2022). 2) See [Implement Consulting Group \(2025\)](#) for more detail. 3) Based on a survey of 363 members of the International News Media Association (INMA) from 194 different companies in 46 countries, including Canada.
Source: Implement Economics analysis based on INMA (2022)



6

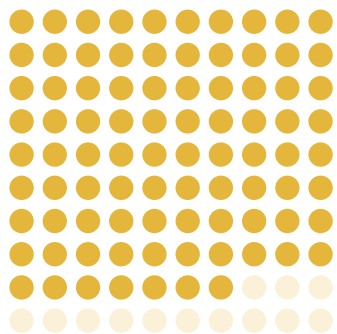
The outlook for AI-enhanced personalized advertising in Canada

Canada's advertising industry is entering a new AI era, but businesses are still catching up

AI is reshaping personalized advertising across both the production of advertisements and the optimization of ad campaigns. Generative AI lowers the cost of creating tailored ad content, while agentic AI can autonomously plan, execute, and optimize campaigns in real time across messages, audiences, budgets and channels. Although agentic AI adoption is still early, expectations are high, and marketers increasingly point to hyper-personalization as a key future impact area. Together, these technologies make personalized advertising both easier to produce and more effective to optimize. This enables hyper-personalization, where ads are adapted to narrower audience segments, contexts, and moments.

AI is already widely adopted in Canadian advertising, and the next wave of value is expected to lie in more advanced applications

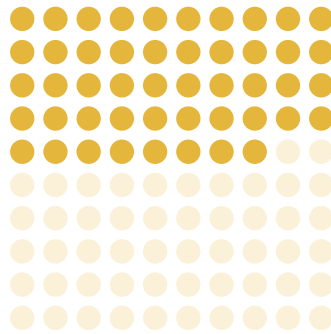
AI adoption



87%

of surveyed IAB Canada members in 2026 expected workflows to be, to some extent, AI-assisted within the next two years.

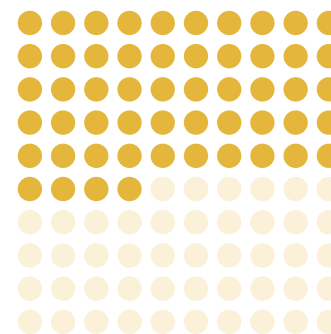
Agentic AI



48%

of marketers identify agentic AI as an important future capability in advertising.

Hyper-personalization



54%

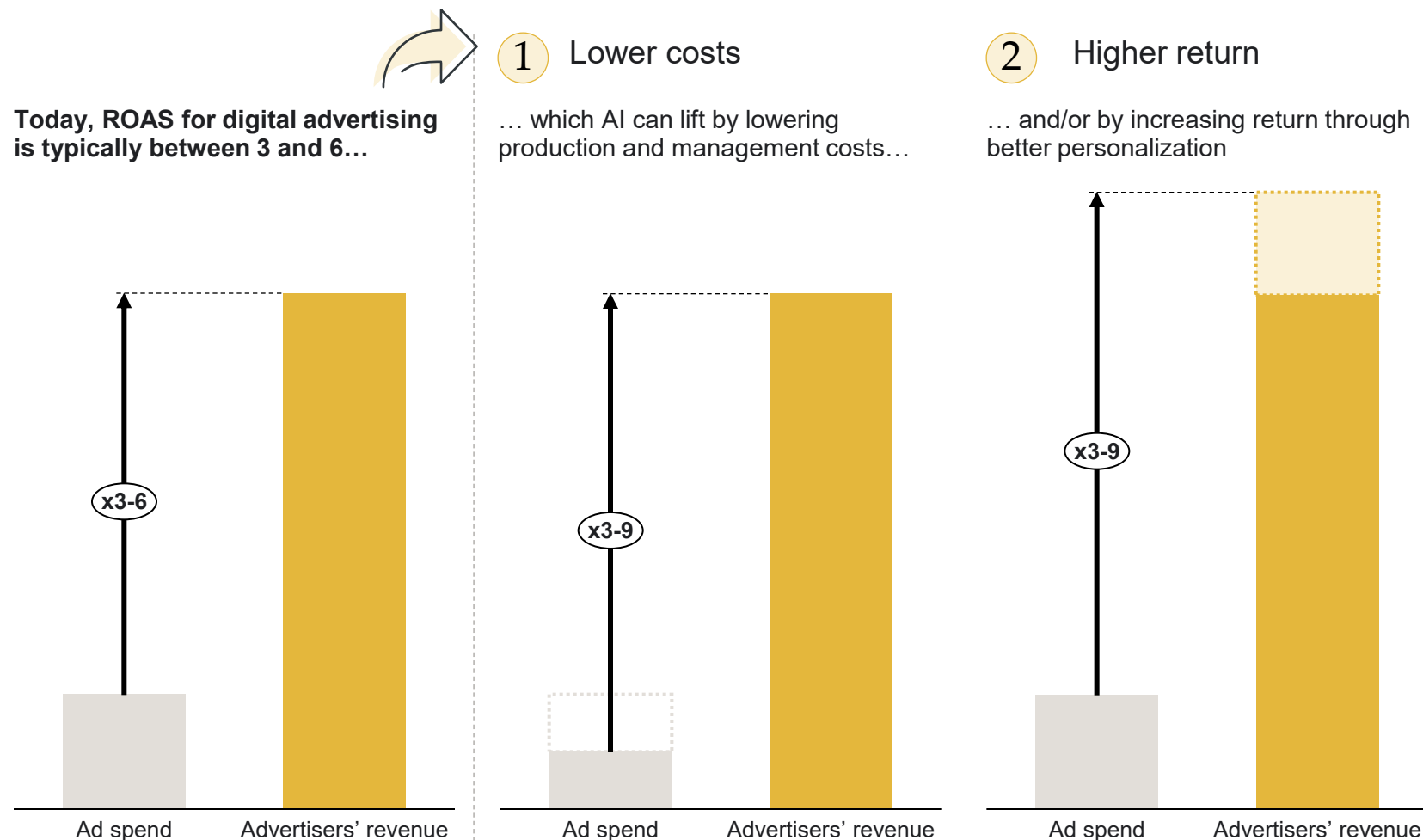
of marketers expect hyper-personalization to have the greatest impact on advertising.



and **41%** of marketers expect to increase AI investments this year.

AI can improve ad performance by reducing advertising costs or increasing returns

- AI can improve ROAS through two main mechanisms:
 - 1 Lower production and operating costs:** AI can reduce the cost of producing and managing ads, including creatives, variants, copy, images, videos, testing, and campaign management. This lowers the cost base included in advertisers' total ad spend.
 - 2 Higher advertising returns:** AI can increase revenue generated from the same ad spend by improving targeting, personalization, creative relevance, bidding, timing, and budget allocation.
- In practice, the total effect will likely reflect a combination of both mechanisms. It is uncertain which effect will dominate, and the effects may partly reinforce each other if lower production costs also enable more testing, better optimization, and more relevant ads.



With continued growth and use of generative AI and agentic AI, the economic gain from personalized ads is could reach up to \$60 billion by 2030

Advertisers using generative and agentic AI for personalized ads could increase their revenue gains from \$13-30 billion to \$26-60 billion.¹ This corresponds to 75,000-200,000 jobs and \$10-30 billion value added to GDP by 2030.

By 2030, personalized advertising is expected to increase the total revenue of advertisers by...



Up to
\$60
billion

... which corresponds to...



Up to
200
thousand
jobs²



Up to
\$30 billion
value added
to GDP³

Note: For simplicity, we assume an average ROAS uplift of 20% for personalized ads, corresponding to the average of 10% and 30%. The advertising industry will see a general ROAS uplift from AI (3-5% for contextual). 1) When assuming an efficiency difference of 54% and a ROAS of 6, the upper estimate is \$60 billion, while it is \$26 billion under the assumption of an efficiency difference of 54% and a ROAS of 3. 2) Based on the average turnover per person employed in Canadian businesses in 2024. 3) Based on the gross value-added ratio, calculated as gross domestic product at basic prices divided by turnover in all industries in Canada.

Sources: Implement Economics based on Statistics Canada and Science and Economic Development Canada's Key Small Business Statistics.



7

Policy debate on personalized advertising

Digital advertising in Canada faces an evolving mix of federal and provincial privacy laws

Federal and provincial laws shape Canada's digital advertising regulatory landscape

Regulatory frameworks	Key elements
Protecting Privacy and Consumer Data Act (PPCDA) – Bill C-36 <i>(Replacing PIPEDA, tabled June 2026)</i>	- Express consent, right to deletion, surveillance pricing restrictions, and heightened children's data protections. - Applies to personal information that is collected, used or disclosed interprovincially or internationally by an organization.
Personal Information Protection and Electronic Documents Act (PIPEDA)	National rules for how private-sector organizations collect, use and disclose personal information in commercial activities, including ad-tech data sharing and profiling.
Act Respecting the Protection of Personal Information in the Private Sector (APPIPA)	Sets out consent, transparency and governance requirements for private-sector organizations in Quebec.
The Personal Information Protection Act (PIPA) Alberta	Sets out consent and reasonable purposes for collecting, using and disclosing personal information by private-sector organizations in Alberta.
The Personal Information Protection Act (PIPA) British Columbia	Sets out organizations in British Columbia to respect consent rights, including the right to withdraw consent for collection, use or disclosure of personal information.

The federal privacy landscape is shifting – Bill C-36 sets a new direction

Canada’s federal private-sector privacy law is set out to be replaced. Bill C-36, the *Protecting Privacy and Consumer Data Act (PPCDA)*, was tabled in the House of Commons in June 2026 and promises the most significant overhaul of Canadian privacy law in 25 years.

Bill C-36 would replace PIPEDA with new individual rights and enhanced protections for children’s data. It would also create a new regulator, the Digital Safety and Data Protection Commission, with binding order-making powers.

The bill is not yet law, as it must still clear several parliamentary hurdles. In the meantime, PIPEDA remains fully in effect.

Bill C-36 is a significant overhaul of Canadian privacy law

Bill C-36 was introduced to replace Canada's PIPEDA and modernize privacy law. Several elements of Bill C-36 may impact the future of digital advertising.

Express consent

- Consent becomes the default authority for collection, use and disclosure of personal data.
- Exceptions include legitimate interests, business purposes and formalized implied consent.

Restricted data flows

- The Bill applies to all interprovincial and international data flows without exception.
- International transfers require a mandatory Privacy Impact Assessment (PIA) before data leaves Canada.
- Federal law currently prevails intra-provincially until provincial laws are deemed substantially similar.

Privacy as a fundamental right

- Privacy shifts from a compliance obligation to a legally recognised fundamental right.
- Raises the bar for any commercial use of personal data.

New privacy regulator

- The Office of the Privacy Commissioner is replaced by a new Commission with binding enforcement powers.
- Fundamental shift from the previous investigate-and-recommend model.
- Individuals would be able to sue organizations directly for damages after confirmed violation with bill.

Enhanced protections for minors

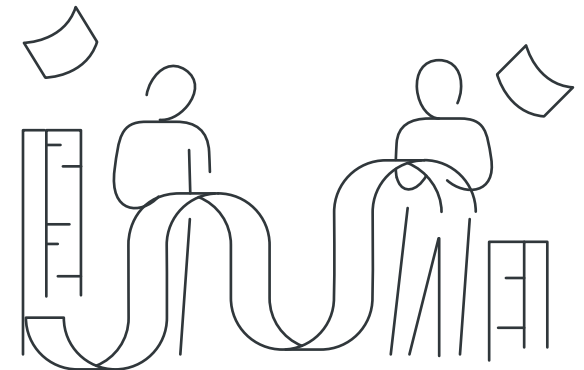
- Children's data is classified as sensitive and attracts the highest level of protection.
- Enforcement is explicitly weighted toward children's best interests.
- Any targeting parameter that could include under-18s carries heightened legal risk.

Individual rights

- The right to deletion cascades to all service providers, including for AI-generated content and deepfakes.
- Data mobility allows individuals to transfer personal information between organizations.
- Automated decision systems (ADS) with significant effects must be explainable and open to human challenge.

De-identification, anonymization and AI training

- Anonymized data falls entirely outside the bill and de-identified data remains personal information and stays in scope.
- Broad prohibitions apply to re-identification of de-identified data.
- C-36 retains PIPEDA's approach to publicly available information (PAI).



GDPR shows a clear trade-off, highlighting how restrictive privacy rules directly hinder consumer engagement and damage business profitability

The new Bill C-36 imports core elements from the GDPR. While the overall effects of Bill C-36 remain to be seen, evidence from the European Union suggests that restrictions on data use have an immediate, measurable effect.

The GDPR addressed growing concerns about data privacy in the EU...



Consumer data rights

Personal data was collected widely with limited transparency or meaningful user choice, raising fundamental rights concerns across the digital environment.



Regulatory harmonisation

28 divergent national data protection regimes created legal uncertainty for businesses and unequal protection for citizens across the single market.



Restoring trust in the digital economy

Growing public concerns about commercial data use threatened confidence in digital services and the development of a functioning EU digital single market.

... and produced measurable costs for website traffic and advertising efficiency

12%

Drop in website traffic and e-commerce revenue

Goldberg, Johnson & Shriver (2024) examine GDPR's economic impact across 1,084 companies using Adobe Analytics panel data, comparing EU-facing firms against a non-EU control group. They find GDPR caused a 12% reduction in both website traffic and e-commerce revenue relative to non-EU firms, with smaller businesses bearing a disproportionate share of the cost.

5.7%

Fall in revenue per click

Wang, Jiang & Yang (2024) examine GDPR's impact on advertising efficiency using a natural experiment on 3.7 billion ad impressions from a large publisher's EU-specific consent request, comparing outcomes against a non-EU control group. They find revenue per click fell 5.7%, click-through rates 2.1% and conversion rates 5.4% relative to non-EU peers, with publishers bearing most of the cost through lower bid prices.

Considerations regarding the implementation of Bill C-36 should take Privacy Enhancing Technologies into account

Privacy Enhancing Technologies (PETs) are a set of techniques that let advertisers, publishers and platforms match, analyze and measure data without exposing individual-level information. The consent and data-flow constraints degrade the feedback loop that makes advertising measurable and efficient and PETs let that loop keep running. PETs are a direction, however, not a finished solution. Their effectiveness depends on conditions that do not yet hold universally, and several questions must be resolved before they can fully replace what third-party cookies provided.

PETs offer ...



On-device processing

Interest signals are computed on the user's own device. Only broad, generalised topics are shared, and the full browsing history never leaves the phone or browser.



Aggregation and differential privacy

Results surface only once enough people share a trait, with statistical noise added. Aggregate insight stays reliable, while no single person can be identified.



Clean rooms and secure computation

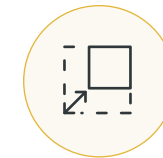
Advertisers and publishers measure outcomes and match audiences together, without either party exposing its raw customer data.

... but have limitations that must be addressed before they can fully match the efficiency of personalized advertising



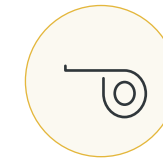
Higher complexity and cost

Clean rooms, secure computation and on-device processing demand technical capability and investment that not every advertiser or publisher can absorb.



Dependence on data scale

Many PETs only work well above a certain volume threshold. This will essentially lead to disproportionate effects, as smaller advertisers, with fewer events, may not reach the scale at which these techniques perform.



Measurement uncertainty

Modelled conversions are estimates, not observed facts. Their accuracy and the confidence advertisers can place in them remain open empirical questions.



8

Maintain Canadian
competitiveness with
the most efficient
digital tools

Maintaining Canadian competitiveness while addressing privacy concerns

In conclusion, Personalized digital advertising strengthens Canada's digital economy by improving allocative efficiency in advertising markets and lowering customer acquisition costs for businesses.

Based on Canadian market data and evidence, we estimate that personalized advertising supports up to \$30 billion in additional advertiser revenue today, supporting 100,000 Canadian jobs, with potential gains rising to up to \$60 billion by 2030 as generative and agentic AI are adopted.

These efficiency gains support business growth, help fund Canada's digital publishing and media ecosystem, and generate economic value for consumers. At the same time, privacy and data protection are legitimate and important policy objectives in Canada's digital economy.

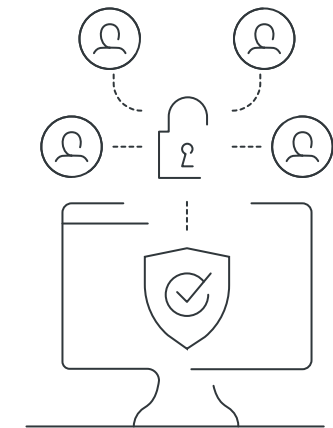
The central policy challenge is therefore to strengthen privacy safeguards while preserving the productivity mechanisms embedded in modern digital advertising markets.

This report offers a framework based on the latest research findings and data to assess the productivity gains from personalized advertising. These impacts should be considered in any new regulatory proposals affecting the digital advertising value chain in Canada.

“Competitiveness is the set of institutions, policies and factors that determine the level of productivity of a country”

The World Economic Forum definition

- Privacy concerns must be addressed in a way that does not hinder the efficiency gains that personalized ads provide to SMBs, publishers and consumers. These efficiency gains are vital to maintaining Canadian competitiveness.
- In a hypothetical scenario where advertisers are forced to revert to only using contextual advertising, ad delivery will be based on the content the user is consuming at a given time rather than on their personal profile. This would imply a significantly less efficient advertising industry in Canada. The costs would include lost sales for SMBs, reduced revenue for publishers and inconveniences for groups of consumers who value current advertising formats and the free content they supports.



Annex

Afrouzi, H., Drenik, A & Kim, R. (2023). Concentration, Market Power, and Misallocation: The Role of Endogenous Customer Acquisition. Access source [here](#).

Alcobendas, M., Kobayashi S., Shi, K., Shum, M. (2023). The Impact of Privacy Protection on Online Advertising Markets. Access source [here](#).

Association of National Advertisers, Association of Canadian Advertisers, Ebiquty and AD/FIN (2017). Programmatic: Seeing through the financial fog. Access source [here](#).

Bain & Company (2024). 40% of consumers find the ads they see irrelevant; AI-powered personalization can help brands stand out and boost engagement. Access source [here](#).

Baslandze, S., Greenwood, J., Marto, R. & Moreira, S. (2023). The Expansion of varieties in the New Age of Advertising. Access source [here](#).

Brin, C., Charlton, S., Marois, A. & Bilodeau, E. (2025). Digital new report Canada – 2025 Data: An overview. Access source [here](#).

The association of Broadcasters (2025). Broadcasting in Canada 2025. Access source [here](#).

Canadian Marketing Association (2025). AI playbook 26 – Ready, Set, AI: 5 Real World Use Cases. Access source [here](#).

Canadian Marketing Association (2025). Consumer Expectations for Privacy and Relevance in a Data-Driven World. Access source [here](#).

Cavenaile, L., Celik, M.A., Roldan-Blanco, P. & Tian, X. (2025). Style over substance? Advertising, innovation, and endogenous market structure. Access source [here](#).

Emarketer (2024). Canada Digital Ad Spending 2024. Access source [here](#).

Implement Consulting Group (2025). Personal Touch – A €100 billion boost to EU competitiveness from personalized ads. Access source [here](#).

Goldfarb, A., & Tucker, C.E. (2011). Privacy regulation and online advertising. Access source [here](#).

Goldstein, D. G., Suri, S., McAfee, R. P., Ekstrand-Abueg, M., & Diaz, F. (2014). Th economic and cognitive costs of annoying display advertisement. Access source [here](#).

Gu, Johnson & Kobayashi (2025). Can Privacy Technologies Replace Cookies? Ad Revenue in a Field Experiment. Access source [here](#). *Note isolated estimate for Canada was provided directly by the authors.*

IAB Canada (2026). 2026 IAB Canada Enterprise 2026 – The Future, By Design Report. Access source [here](#).

IAB Canada (2025). 2024 IAB Canada Internet Ad Revenue Survey and 2025

Forecast. Access source [here](#).

IAB (2024). State of Data 2024. Access source [here](#).

IAB Canada (2024). 2023/24 IAB Canada Internet Ad Revenue Survey. Access source [here](#).

IAB Canada (2023). 2022 IAB Canada Internet Ad Revenue Survey. Access source [here](#).

IAB Canada (2022). 2021 IAB Canada Internet Ad Revenue Survey. Access source [here](#).

IAB Canada (2021). 2020 IAB Canada Internet Ad Revenue Survey. Access source [here](#).

IAB Canada (2020). IAB Canada 2019 Actual Canadian Internet Advertising Revenue Survey. Access source [here](#).

IAB Canada (2019). IAB Canada 2018 Actual + 2019 Estimated Canadian Internet Advertising Revenue Survey. Access source [here](#).

IAB Canada (2010). Written Submission In Response To: The Office Of the Privacy Commissioner's Draft Report on the 2010 Consultations (With Specific Focus on Online Tracking, Profiling and Targeting). Access source [here](#).

IAB UK (2023). Powering Up. Access source [here](#).

IHS Markit. (2017). The economic value of behavioural targeting in digital advertising. Access source [here](#).

Innovation, Science and Economic Development Canada (2005-2025). Key Small Business Statistics. Access source [here](#).

Innovation Media Consulting Group (2022). Access source [here](#).

Johnson, G. A., Shriver, S., & Du, S. (2019). Consumer privacy choice in online advertising: Who opts out and at what cost to industry? Access source [here](#).

Kahn, G. (2023). In Canada's battle with Big Tech, smaller publishers are caught in the crossfire. Access source [here](#).

Kizer, C. (2021). Project Oasis Research Report. Access source [here](#).

Lau, Y. (2020). A Brief Primer on the Economics of Targeted Advertising. Access source [here](#).

Marketing News Canada (2024). We Spoke with Canadian SMBs About Their Experience with Advertising: Here's What They Said. Access source [here](#).

Newman, N., Arguedas, A. R., Robertson, C. T., Nielsen, R. K. & Fletcher, R. (2025): Reuters Institute Digital News Report 2025. Access source [here](#).

Office of the Privacy Commissioner of Canada (2024). 2024-2025 Public Opinion Research on Privacy Issues. Access source [here](#).

Outcome Rocket (2025). AI in Marketing 2025: Widespread Adoption, Growing Concerns, and Productivity Gains. Access source [here](#).

Perpetua. (2023). Q2 2023 Amazon Benchmarks. Access source [here](#).

PwC/IAB (2024). Internet Advertising Revenue Report – Full-year 2023 results. Access source [here](#).

Ravichandran, D., & Korula, N. (2019). Effect of disabling third-party cookies on publisher revenue. Access source [here](#).

Riedel, S. Weeks, C., & Beatson, A. (2023). Dealing with intrusive ads: a study of which functionalities help consumers feel agency. Access source [here](#).

Signal49 (2026). Uncovering the Value of Marketing in Canada. Access source [here](#).

Statistics Canada (2026). Balance sheet and income statement statistics by enterprise size. Access source [here](#).

Statistics Canada (2025). Newspaper publishers, advertising sales by type of format. Access source [here](#).

Statistics Canada (2025). Newspaper publishers, circulation sales by type of format. Access source [here](#).

Statistics Canada (2025). Periodical publishers, advertising, circulation and custom publishing revenue. Access source [here](#).

Statistics Canada (2024). Employment by establishment size. Access source [here](#).

Strycharz, J., van Noort, G., Helberger, N., & Smit, E. G. (2019). Consumer View on Personalized Advertising: Overview of Self-Reported Benefits and Concerns. Access source [here](#).

Tadelis et al. (2023). Learning, Sophistication, and the Returns to advertising: Implications for Differences in Firm Performance. Access source [here](#).

TeikaMetrics (2024). Amazon Annual Review: 2024 Benchmark Report. Access source [here](#).

ThinkTV (2023). Net advertising volume. Access source [here](#).

Tucker, Caroline (2014). Social Networks, Personalized Advertising, and Privacy Controls. Access source [here](#).

UK Department for Business & Trade (2025). Business population estimates for the UK and regions 2025: statistical release. Access source [here](#).

WARC. (2024). Benchmarking ROI using successful campaigns. Access source [here](#).

Several papers estimate the effectiveness of personalized ads compared to contextualized ads

A significant body of literature estimates the impact on publishers' revenue (or advertisers' spend) from personalized ads. The results from these studies indicate a reduction in ad prices of approximately 50-65%.

Article	Year of data	Peer reviewed?	Area	Point estimate	Measure	Comparison	Method used
Johnson et al. (2019): <i>Consumer Privacy choice in online advertising: Who opts out and at what cost to industry?</i>	2015	Yes	CAN	58.84%	Lower ad price, in CPM (cost per mille)	Using only contextual ads vs. behavioural <i>and</i> contextual ads	Natural experiment of AdChoices–program that allows users to opt out of behaviourally targeted advertising. The program was implemented in the US, EU and Canada (2014). Estimates based on thousands of advertisers and publishers.
Gu, Johnson & Kobayashi (2025): <i>The Impact of Privacy-Enhanced Ad Technologies on Publisher Revenue: Evidence from an Industry-Wide Field Experiment</i> . Work in progress.	2025	No	CAN	54.49%	Lower publisher revenue in CPM	Ads served to users in (1) a status quo environment with third-party cookies, (2) a Privacy Sandbox-only environment (cookies removed), and (3) a fully cookieless environment without both cookies and Privacy Sandbox.	Experimental design randomising 2% of all Chrome users at browser level and computing the average treatment effect on treated on publisher revenue. Estimate for Canada provided by the authors.
Goldfarb & Tucker (2011): <i>Privacy regulation and online advertising</i>	2001-2008	Yes	EU	65%	Lower purchase intention	Ads utilising a smaller amount of personalized data due to stricter regulation	Measure of self-ed purchase intent because of privacy regulation that restricted advertisers' ability to collect data on web users to target ad campaigns.
Alcobendas et al. (2023): <i>The Impact of Privacy Protection on Online Advertising Markets</i>	2022	Yes	US	54% lower publisher revenue	Winning bid prices	Symmetric ban group: In this counterfactual scenario, all bidders are simultaneously affected by the ban and no longer receive any third-party cookie information for users.	Structural model estimating the effect of banning third-party cookies based on Yahoo websites. Estimate is based on one website - which means the variance of the auction pricing might not be sufficiently represented.
Google (2019): <i>Effect of disabling third-party cookies on publisher revenue</i>	2019	No	Global	52% lower publisher revenue	Revenue per query	Ads utilizing third-party cookies vs. not utilizing third-party cookies	Randomized Control Trial measuring the change in revenue for top 500 global publishers.

Technical description of the \$30 billion additional advertising revenue from using personalized ads instead of contextual ads

To estimate the value of personalized ads, we estimate **the revenue gain** from using personalized ads compared to contextual ads.¹ We apply the efficiency difference of 54% between personalized and contextual ads and a ROAS ranging between 3 and 6 (see next pages for details). We find an estimated annual revenue gain from personalized ads of between \$13 billion (low end) and \$30 billion (high end).

High end estimate

\$30 billion

additional advertising revenue due to the efficiencies of personalized ads

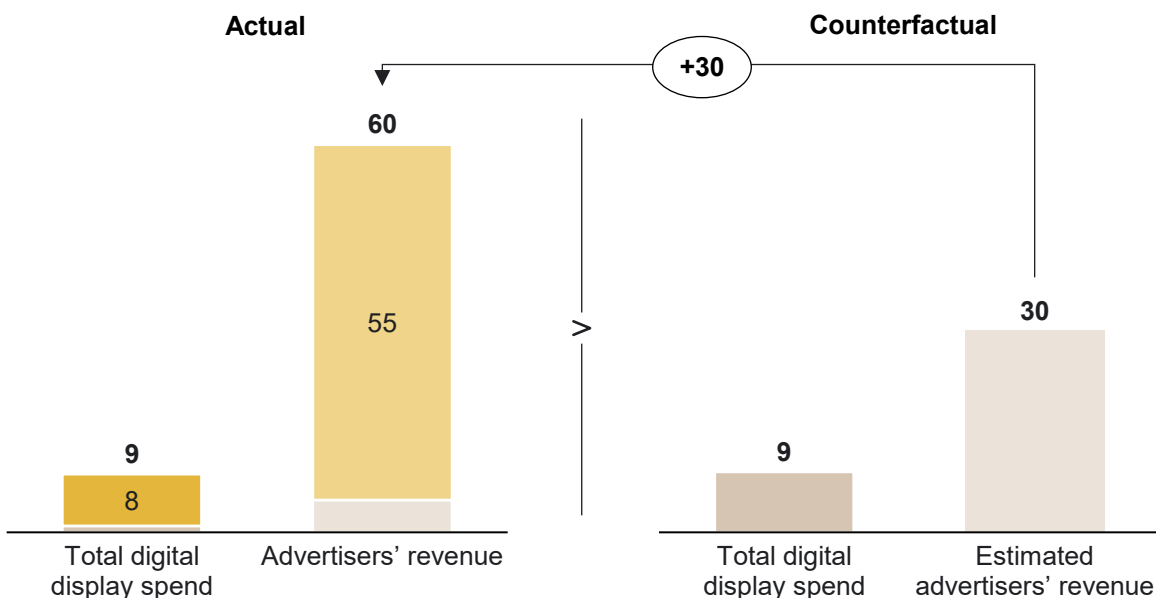
Advertising and revenue in Canada, 2024

CAD billion

Personalized ad spend Revenue from personalized ads
Contextual ad spend Revenue from contextual ads

Advertising and revenue in Canada, 2024

CAD billion



While this calculation is helpful in gauging the first order effects, it does not consider behavioural responses from advertisers or publishers.

The *foregone revenue* calculation

Calculates...

The current ad-generated revenue for advertisers given their current digital display ad spend of \$9 billion with a mix of personalized and contextualized ads. We then calculate a counterfactual ad-generated revenue if advertisers spent the \$9 billion only on contextual ads.

... showing that...

Canadian advertisers are estimated to gain up to **\$30 billion more revenue** for the same ad spend by using personalized ads compared to a situation where spend is solely placed on contextual ads.

... but does not take into account

Advertisers may change their total ad spend in response to changed conditions for using ads. Since contextual ads are less efficient, economic theory suggests that advertisers would lower their total spend in response to a lower expected return.

Furthermore, publishers may also react, and the amount of ad space may change in response to changes in yield per ad space.

Considering such behavioural responses will most likely cause the estimated efficiency gain to *increase*.

Note: Current contextual ads are assumed a ROAS close to the return on personalized ads – reflecting that the price difference captures much of the efficiency difference. In the counterfactual situation however, we assume a lower ROAS for the spend shifted to contextual ads, given that the alternative must be worse than paying the premium price for personalized advertising. 1) We quantify the first order efficiency gains from personalized ads.
Source: Implement Economics analysis based on IAB Canada (2025).