

WHAT THE FUTURE | VOL2 NO1

VICE

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Seminal urban planner Daniel Burnham thought that one of the key benefits of parks was their role in keeping people moral and virtuous because their behavior was out in the open.

"Those who grow up before the eyes of the community escape those poisonous practices that lurk in secret places," he told a group of planners in London in 1910.

Fast-forward a little over a century to Civic Center Park in the heart of Berkeley, California.

Polly Armstrong, then head of Berkeley's Chamber of Commerce, was giving a tour. As she passed the park, she remarked, "This is where the kids in the '60s and '70s all used to come to smoke dope. Now they just smoke it anywhere."

The point, of course, is that our definitions of "vice" are continually shifting. Many of the topics covered in this issue were "vices" 100 years ago. Or 30. Or even five. Today those stigmas are dissolving. As societal norms and behavioral expectations evolve, what were once considered morally bankrupt behaviors are now gaining increasing acceptance.

Does this mean that we as a society are moving in the wrong direction? Hardly. It's simply a recognition that as times change, our delineations of what is acceptable change as well. On page 20, Ipsos examines attitudes from around the world about the morality of a variety of activities. It's clear that what might be a vice in another nation, isn't here. And *vice* versa, if you will. Will that change in the future? Likely. It's easy enough to imagine a world suffering the extreme consequences of climate change, where driving a gas-powered car is considered a vice.

We should keep an eye toward the future, while thinking about how to capitalize on society's constant evolution.

Think about these trends as a starting point, and consider the impact they will have not only on these categories directly, but perhaps on your industry, too.

Just say yes

In the U.S., states that have said no in the past are reversing course. In more than 30 states cannabis is legal—and highly regulated and often taxed—for medical purposes. More than one in five states have approved recreational use as well. But unlike in Canada, cannabis isn't legal at a national level. A similar wave of legislative changes is spreading the footprint of legalized sports betting in the U.S. States and municipalities also are seeing the benefits of relaxing liquor laws to allow for brewery tap rooms, small-batch distilleries and other ways for the craft industry to expand its reach.

Making it personal and bringing it home

For those who want the vice without the consequences, brewers are working on truly alcohol-free 0.0% beers. Rapid aging of spirits means you can design your own bourbon and taste it in minutes instead of years. Mobile betting will allow you to put some money on your favorite team (or whoever is playing the Red Sox) from your home, desk or anywhere with cell coverage.

Wrapped in luxury

A pop-up restaurant in Chicago served cannabis entrees in what the press called "a seriously elevated fine dining experience." Craft brewers and distillers create in-demand drinks that require eager consumers to either wait in a long line or pay a big tab—or both! When a mass-market product category gains a level of luxury, it's hard to see it maintain its status as a vice.

So, what the future? We'll talk about that in the rest of this issue, with a deep look at cannabis, beer, spirits and sports gambling, to see where the potential lies.

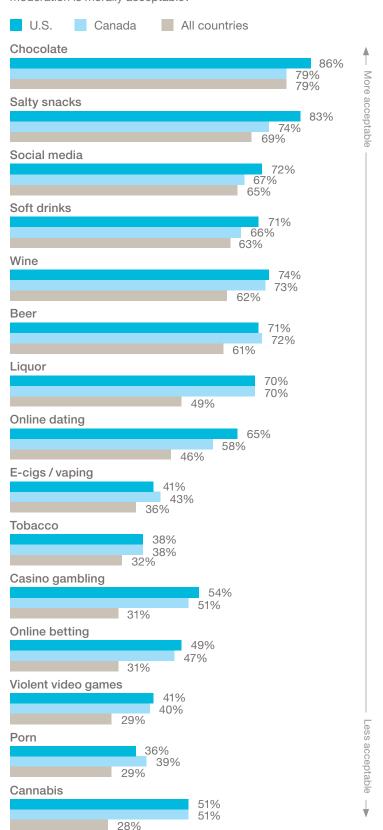
Finally, we take a moment to consider how our digital lives, under constant tracking from marketers and governments alike, are pointing us to a virtual version of Burnham's virtuous parks. As it becomes harder to keep our vices and everyday behavior secret from the watchers, we come to a crossroads. Who is to define what a vice is, and what is the result of others being able to track our enjoyment of them?

The shifting of societal norms is hard enough to predict—we should be thinking harder about how we react to those shifts. Let's start now.

Oscar Yuan is the president of Ipsos Strategy3.

What's a vice? Depends on where you ask.

How much do you agree that using the following in moderation is morally acceptable?



(Source: Ipsos Global Advisor survey conducted between Nov. 26 and Dec. 07, 2018 among 18,310 adults across 27 countries. Note, not all questions were asked in all countries. For full datasets, please visit Ipsos.com/en-us)



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WHAT THE FUTURE

VOL2 NO1

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Michael takes us through Millennial and iGen trends in luxury beverages on page 17. His vice: Manhattans, perfect and up.



Michael Rodenburgh is Executive VP for Ipsos in Western Canada. He leads the Canadian cannabis strategy as well as a number of large strategic accounts. He has been in the research industry for almost 25 years and has won awards for his work from both ESOMAR and Canada's Marketing Research and Intelligence Association (MRIA).

Mike looks at the differences between alcohol and cannabis consumption on page 11. His vice: either a British Columbia Pinot Noir or a French Sancerre, depending on the season and his mood.



Jessica Schneider oversees several Ipsos US practices, including Innovation, Market Strategy & Understanding, and User Experience. Her work is centered in understanding, optimizing, and qualifying all things "new"—new brands, new products, new buyers, and new markets. She has significant experience leading engagements in emerging, high-growth categories, especially within the spaces of consumer packaged goods, restaurant, and retail.

Jessica talks about the rampant innovation and growing demand for CBD-infused products. Her vices: Wine, chocolate-covered cherries, and murder documentaries, preferably all at once.



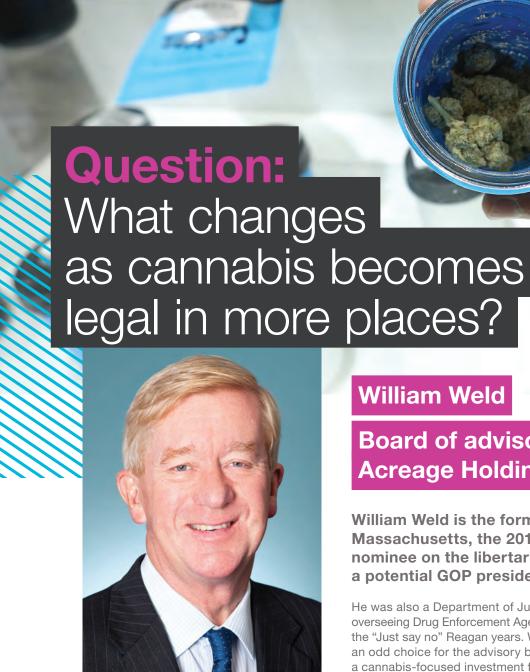
Paige Schoenfeld is a Director at Ipsos. She advises lottery and gaming clients about their market, advertising, and brand strategy using data driven insights. She helps her clients make more informed decisions by having a stronger market understanding, optimizing player engagement, and by providing a platform for clients to make more educated decisions.

Paige examines the generation barriers for sports gambling on page 26. Her vice: Horse racing.



Oscar Yuan is President of Ipsos Strategy3, where he oversees the growth and strategic direction of the firm. He leads select client engagements in marketing, brand and innovation strategy, for industries ranging from travel and hospitality, to retail, to consumer goods. Previously he was a founding Partner at Kantar Vermeer. A frequently featured speaker and commentator on brands and brand-building, Oscar has appeared as a guest on CNBC and NPR and is a contributor to the Financial Times, BusinessWeek, and Fortune.

Oscar introduces the Vice issue on page 2. His vice: Belvedere and soda.



William Weld

Board of advisors member, **Acreage Holdings**

William Weld is the former governor of Massachusetts, the 2016 vice presidential nominee on the libertarian ticket and a potential GOP presidential candidate.

He was also a Department of Justice official tasked with overseeing Drug Enforcement Agency prosecutions during the "Just say no" Reagan years. Which seemingly makes him an odd choice for the advisory board of Acreage Holdings, a cannabis-focused investment firm. In that role he joins some strange bedfellows; former Speaker of the U.S. House John Boehner and former Canadian Prime Minister Brian Mulroney – two deeply conservative politicians. (We'll talk about them a bit later.) When Gov. Weld thinks What the Future he's wondering how the legal landscape for cannabis will shape up.

Glossary: THC and CBD are two chemical compounds found in cannabis plants.

THC has psychoactive effects that causes a feeling of being intoxicated, 'high' or 'stoned'.

CBD has been shown in preliminary research to have potential benefits in treating a wide variety of health concerns, including sleep disorders, chronic pain, and anxiety. CBD does not have a psychoactive impact that makes someone feel intoxicated, 'high' or 'stoned'.

GenPop: What are the challenges of operating in an industry with so many different state, local and federal regulatory agencies?

William Weld: The biggest challenge is that cannabis is still a Schedule 1 narcotic, and that's kind of ludicrous. It doesn't belong anywhere in the Controlled Substance Act. That's supposed to be for items that have no medicinal value whatsoever, and that's clearly not true of cannabis. You've got people who find that it's very helpful against pain. They're not going to be too pleased if they're told that because of a quirk in federal law that we're going to undo what 33 states [that have legalized medical cannabis] have embraced.

GenPop: What else will need to be addressed as businesses in this space look to scale up?

Weld: There are a lot of problems right now for mom-and-pop businesses. [Section 280E of the Internal Revenue Code] says you can't deduct your expenses [involving Schedule 1 narcotics] so it makes that business much more expensive. Bankability is a real problem. There's one bank in Massachusetts that's willing to roll the dice here, and they're doing a land office business. But most banks won't go near [lending to cannabis businesses] as long as it's a Schedule 1.

GenPop: In answering the survey question you asked, people said they want the federal government to defer to the states by a wide margin. But if we unpack that a little bit, we see they also want the federal government to legalize cannabis for medical purposes, if not for recreation as well.

Weld: I think the fact that the survey says they want to regulate medical cannabis just means that they want cannabis to be totally legal and then to have it subject to the same FDA oversight as other medicines.

GenPop: If the Schedule 1 gets lifted, do you think we'll see more regulations coming that treat cannabis more like a normal industry, with the FDA and FTC looking at marketing and research claims? Or the NIH being able to fund more research at the federal level?

Weld: You know, you put your finger on it. It would make it like a normal industry. In a normal industry you can't go make false claims and that sort of thing. So I think that would be a healthy state of affairs. But the problem now is you can't even study it. And the hypocrisy of the current regulatory regime is well-illustrated. There's a drug called Epidiolex which is used to treat two rare forms of epilepsy. There's no question that CBD is very effective against that. So the FDA approved a cannabis drug even though it's a Schedule 1 narcotic in the United States.

GenPop: Do you think we'll see the U.S. start to look more like Canada, which recently legalized recreational use, but with strings attached?

Weld: Many people think that this stateby-state approach is just fine. And I think that includes Boehner and myself. If Alabama, for instance, didn't want to legalize it, that's fine with me. There will always be that distinction between Canada and the U.S., but the future of the industry is in the U.S. I've seen stats that the American market is going to be 75 percent of the worldwide market, and Canada will be 10 percent, and the rest of the world will be 15 percent. Now maybe that is subject to change over the years, but that's looking at least several years out. That creates a lot of hydraulic force in favor of Americans solving this problem of de-scheduling.

GenPop: The constituencies of cannabis have often seemed a little more Democratic. So does having people like you and Speaker Boehner and Prime Minister Mulroney coming from a more Republican or conservative standpoint lend a little more credence and bipartisanship to these issues?

Weld: People were just flabbergasted and happy to be able to cross-examine John Boehner on why he changed his view on the matter. He had said when he was speaker that he was unalterably opposed



to the legalization of marijuana. He said if you're a member of the House and you don't listen to your constituents, you're not going to be a member of the House for very long. And that's a true fact. And so in his case and in PM Mulroney's case it was just reflecting on the merits and also listening to the constituents.

GenPop: Right, and you've been a long-time supporter of legalization.

Weld: I came out in favor of marijuana in 1991, my first year in office [as governor]. I had seen just enough about how cannabis was useful in treating glaucoma and treating nausea from chemotherapy. So I said, Why not? Let's make it legal.

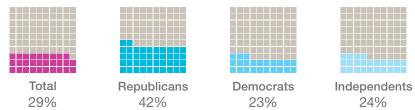
GenPop: Do you look forward to getting past all of this discussion and starting to think about this more like an actual business, in terms of marketing and developing products, and reaching out to consumers and all of those normal business challenges?

Weld: Well, I look forward to the market not having this overhang on it, which it now has. And, you know, it would be terrific for Acreage Holdings and the entire industry not to have discriminatory tax treatment and not to have discriminatory bankability. That's life right now for the little companies. And it's very difficult for them.

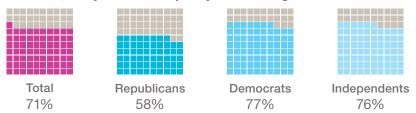


Who should control cannabis laws? (Federal vs. States)

Federal government laws should be followed, and cannabis should be considered illegal, even in states that have decided to legalize it.



This is a state's rights issue. The federal government should leave regulation to the states, and [cannabis/marijuana] should be legal where states have legalized it.



(Source: Ipsos survey conducted between Feb. 7 and 11, 2019 among 1,005 adults in the U.S. Note: An additional 1,005 adults were asked the same questions using the term "marijuana" instead of "cannabis" which yielded some small differences in the responses.)

Cannabis use and regulation

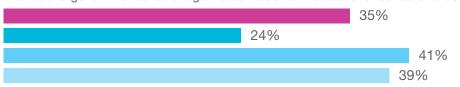
Which of the following four statements do you agree with?



The federal government should legalize cannabis for medical uses only.



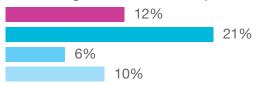
The federal government should legalize cannabis for medical and recreational use.



The federal government should defer to the states about legalization of cannabis.



The federal government should keep cannabis illegal.



(Source: Ipsos survey conducted between Feb. 7 and 11, 2019 among 2,010 adults in the U.S.)

Question: Why wouldn't people use cannabis?

Bruce Linton

Founder, chairman, co-CEO, Canopy Growth

Bruce Linton doesn't understand people who use gummies in Canada. Edibles are unregulated, illegal or both, so dosages can be a mystery. "It's like, 'Hey buddy, just eat this, and it may or may not completely [mess] you up for somewhere between zero minutes and four hours.' You wouldn't do that!"

He likens using gummies to buying street meats—you never know if you'll get a good meal, or botulism.

When he thinks **What the Future**, he's looking at the near future (fourth quarter, in Canada), when more forms of cannabis will become legal. And he wonders what barriers will still hold back customers.

30 MILLION

Number of adults who use cannabis in the U.S. That's about equal to the entire adult population of Canada.

(Source: National Institutes of Health; Statistics Canada)

POWERED BY **Ipsos**

GenPop: When you look at different ways people consume cannabis, people cite ease of purchase and ease of use as key reasons they choose what they choose. Why is that?

Bruce Linton: It still comes down to that super-boring topic of public policy. Because in Canada if you're getting vapes or edibles today, you're buying them from the dude in the puffy coat, until Q4 of this year. Under the existing or the new legal system, we can't sell edibles, vapes or ingestible liquids.

GenPop: That will lessen the easeof-purchase issue.

Linton: If all an area has is an online store, the per capita consumption is extremely low, relative to those places with stores. If you had enough confidence to get in the door, the people inside have enough knowledge to help you make a buying decision. If you go to a website, it doesn't mean you have the confidence to click "buy." Did you pick the right stuff? Is it too strong? Is it too weak? I think physical stores can lead to education and better decision ability.

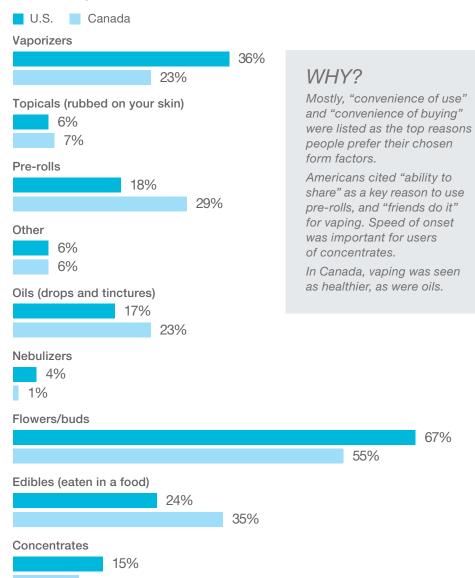
GenPop: What can companies like yours and the industry in general do to further that education?

Linton: One of the first things we did was ask ourselves this question: "Suppose your mum wanted to get a job selling cannabis at a store. But she'd never purchased cannabis. How could she get that job?" We had a database where we interacted with 60,000 health professionals over the course of a few years. We found every objection and found every potential outcome. Over the course of about five months, we created a self-paced training program which about a thousand people have now passed.

GenPop: What does that get you?

Linton: If you compare stores in America, the biggest thing I noticed between the brands is some of them have decent training and some have no training. If I go into a decent dispensary and I ask three different people the same question, I get approximately similar answers. In a poorly run store, I will get three very interesting and diverse answers.

How do you consume cannabis?



(Source: Ipsos survey conducted between Feb. 25 and 26, 2019 among 137 adults who use cannabis in the U.S. and between Feb. 26 and 28, 2019 among 259 adults who use cannabis in Canada. Response of "other" omitted.)

GenPop: How do you go about creating brands and scaling them in this field? Is that different from other industries you've worked in?

11%

Linton: You can brand a raw ingredient like cannabis, but you probably make a more durable brand if you use good science and create products that aren't yet generally available. I think science has a bigger function in creating outcomes to create better products that I think are more brandable. Google is a relatively stupid name, but because they did an amazing job on the technology, you use Google.

GenPop: Which other industries do you see as potential partners, and which could be competitors?

Linton: I would use the phrase, "Who, in rank order, is most disrupted in their normal course of business?" I don't mean to compete with anybody. Who is this immediately worse for? The criminals—the current supply chain. Could this disrupt alcohol? Maybe. But there's an awful lot of alcohol and cannabis existing in the world now, so maybe not. Could it disrupt geriatric care? Maybe. A lot of drugs get sold to you as you get older.

Could it disrupt sleep aids? Maybe. A lot of people don't sleep as well as they should. Could it start to become a major thing for companion animals and their anxiety? Probably. Could it disrupt smoking? If we can cause smoking cessation to occur through an inhalation device that gives you a load of anti-anxiety product from cannabis, in a format that feels like you're using something in your hands, that probably could be disruptive to the smoking sector. When I started this, we didn't mean to disrupt cotton, but I think [with hemp] that we could.

GenPop: And what industries become complementary? Streaming entertainment, for instance?

Linton: All of those venues which help socially normalize people will become complementary. Where are you located?

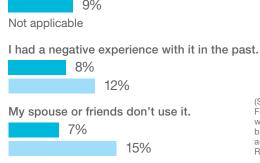
GenPop: I'm in Chicago.

Linton: So in Chicago if you get a beverage, it's probably been delivered to the restaurant or the store by [the liquor distribution company owned by] the Wirtz family. The family would probably make an excellent ally, because do you think I wish to be in the business of operating trucks and staff for delivery and distribution? No. You start to find long-term care beds - meaning anything from slightly-assisted living to the last days. Those places become partners because they want to differentiate the quality service they provide to your loved ones based on the gentleness of care.

GenPop: As there is more acceptance, regulation and research in this space, does that start to reduce some of the existing stigma?

Linton: If I encounter bias every week, I'm right on track, because bias means I'm causing early friction of our idea with an old idea. If there's no bias, I feel like I'm either super-late or the exciting part's over. So I don't think bias is going away.

Why don't you use cannabis? U.S. Canada I am not interested in cannabis. 51% 59% It's illegal where I live. 37% Not applicable I don't like the thought of smoking it/smoking isn't healthy. 28% 42% I don't like the smell. 24% 33% I don't feel comfortable buying/using it. 24% 22% I am afraid of potential side effects. 15% 21% It is too expensive. 14% 15% It is against my religion or morals. 11% 11% I am afraid it may be a "gateway" to using other drugs. 11% 11% I am worried about becoming addicted. 10% 14% It requires a doctor's prescription. 9% Not applicable I am afraid of getting caught. 9% Not applicable



(Source: Ipsos survey conducted between Feb. 25 and 26, 2019 among 868 adults who do not use cannabis in the U.S. and between Feb. 26 and 28, 2019 among 745 adults who do not use cannabis in Canada. Response of "other" omitted.)



Will a new 'vice' disrupt one of the oldest?

The legalization of cannabis in Canada is showing that throwing open the doors doesn't mean there will be a sudden stampede to get in. Ipsos' Alcohol Consumption Tracker (ACT) and Cannabis Consumption Tracker (CCT) studies show that attitudes and behaviors regarding cannabis are slow to shift after legalization.

Evidence from the U.S. market is mixed on whether cannabis sales are disrupting the much larger alcohol market. In Canada, where adult use has been legal for only five months, evidence suggests that neither category is changing quickly. Consumption occasions are very different between alcohol and cannabis, and the demographics of consumers of each category vary widely. This is particularly true among medical cannabis users, but the statement applies to recreational cannabis users as well. Homing in on recreational situations, data from the Ipsos ACT and CCT studies shows that most (77%) alcohol consumption occasions occur in social settings, whereas 57% of recreational cannabis consumption occasions occur alone. Similarly, alcohol is usually consumed with food, but cannabis isn't.

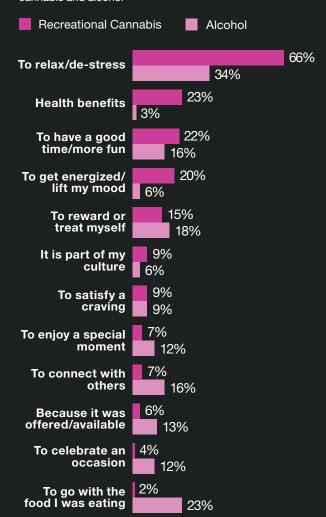
The reasons for consuming the two products are different, too. Recreational cannabis is mostly used to relax or de-stress. Uses for alcohol are much more evenly varied.

What's clear, however, is that there is blue sky for cannabis companies to define their niche in consumers' lives. As legalization of medical and recreational use spreads across North America, new uses, refined consumption methods and strong brands will proliferate as the industry matures. As you will see throughout this issue, there is widespread interest in North America in THC and CBD products, and in integrating THC and CBD into existing product categories. The U.S. and Canada are already more open to these products than many other global markets. Legalization will likely help stigmas recede over time, leading to reduced barriers and expanded opportunities. Disruption will certainly occur but perhaps not in the expected areas and in the anticipated ways.

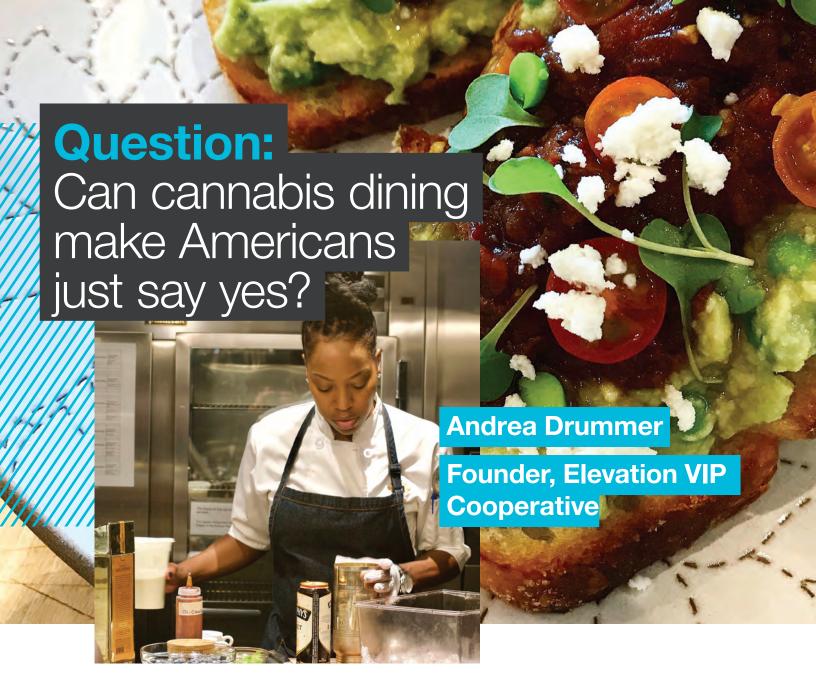
Mike Rodenburgh is an executive vice president at Ipsos.

Will a new 'vice' disrupt one of the oldest?

Percentage of consumption occasions for cannabis and alcohol



(Ipsos Alcohol Consumption Tracker, Ipsos Cannabis Consumption Tracker Q4 2018)



Andrea Drummer is one of America's leading chefs who cook with cannabis. The founder of a catering business in Los Angeles called Elevation VIP Cooperative, Drummer will soon open one of the nation's first legalized cannabis consumption lounges.

When Drummer thinks **What the Future**, she wonders what it will take for people to re-evaluate the negative bias against cannabis and embrace it as a food ingredient.

GenPop: What is your overall reaction to the survey results?

Andrea Drummer: I didn't anticipate Democrats being against cannabis at such a high percentage. But some things made sense. It tells me the work that needs to be done and where I need to focus my considerations.

GenPop: How so?

Drummer: The age group of us who were in the generation of the Reagan campaign, and "Just say no," and cannabis being the gateway drug, it all aligned with the practices of cannabis being stigmatized and demonized by specific communities, and the war on drugs.

GenPop: What will shift Americans' willingness to accept cannabis as a restaurant ingredient?

Drummer: Once statistics come out and people see what experiences are like or could be, and it's not something to be feared, the consumer will become more educated and understand and be more open. For some people, it's about revenue and what that means for the economy and jobs, and also continued legalization and acceptance by the government.

GenPop: How do you think cannabis dining will shape the dining culture in America?

Drummer: You could go to a very high-end, fancy Hollywood place, or you could go to somewhere where you'll get a good, hearty meal or menu items. I don't think it will exclude any demographic of people, whatever your tax bracket, and you'll be able to choose.

GenPop: Whom do you see influencing cannabis dining in the future?

Drummer: It's not only someone who consumes cannabis or is open to consuming cannabis by way of food, but they're also foodies. They're engaged with the culinary scene and what's new on the scene and what's hip and what's good. They are Millennials and look like, or are, the Kardashians. They are social media influencers. They're interested in a great dining experience; otherwise they would just go to a dispensary and get a brownie.

We don't have a James Beard Award for cannabis and culinary—yet. That's the part that I'm looking forward to—being part of the conversation of the foodies, the food critics and, hopefully, Michelin stars and the food and wine festivals.

GenPop: It seems you would need servers to be well-versed on cannabis as much as on the food, right?

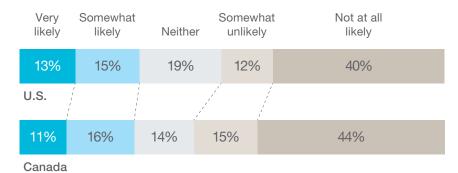
Drummer: We can't just employ someone who's had restaurant experience. The training will be different. We believe a great demographic will be newbies to this idea of cannabis consumption because historically there has been fear about consuming edibles. My idea is that on some level everyone in the restaurant has to be a cannabis sommelier, and then perhaps [there's] a lead sommelier that adds the panache to the experience.

GenPop: It's 2030. How will we be eating, drinking and experiencing cannabis?

Drummer: There will be spas, tours, destinations and excursions. With legalization, my ideal is it will be global. You'll be able to have your own cannabis garden on-site, like restaurant gardens have herbs and vegetables. Then we'll be splicing vegetables and herbs and fruit, and it's "cannabinized," hybrid plants. It would be like a Sativa apple tree or Indica lemon trees.

People are hesitant to go to a cannabis-focused restaurant — for a variety of reasons.

How likely would you be to consume food at a restaurant that used cannabis as an ingredient?



How much do you agree or disagree with each of the following statements?

U.S. Canada

I am worried about accidentally consuming too much cannabis if it is included in my food or drink.



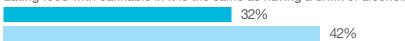
I am concerned that a chef might give me the wrong dose/amount of cannabis in my food.



I think it would make me "high" to eat food with cannabis in it, even if the restaurant said it wouldn't.



Eating food with cannabis in it is the same as having a drink of alcohol.



I think putting cannabis in food is probably the safest way for people to use cannabis.



I do not approve of using cannabis in any form.



I think I may become addicted to cannabis if I ate food with cannabis in it.



(Source: Ipsos survey conducted between Feb. 25 and 26, 2019 among 1,005 adults in the U.S. and between Feb. 26 and 28, 2019 among 1,004 adults in Canada.)



SpiriTech Logistics

57%

say they would be willing to try a rapid-aged beverage.

(Source: Ipsos survey conducted between March 5 and March 6, 2019 among 1,006 adults age 21 and over in the U.S. Note: half of the sample were asked if they were willing to try a rapidly aged beverage if it "cost less." This produced no significant difference in the response.)

For many drinkers, well-aged wine and spirits are the height of pleasure for their quality and smoothness. Now, entrepreneurs are using innovative technologies to speed up time-honored aging methods to mimic the qualities of beverages aged several years.

One of these entrepreneurs is Larry Wu, a former research and development expert for companies ranging from Starbucks to Brown-Forman, who now is co-founder and general manager of Spirit Tech Logistics. He's developed methods to rapidly age spirits, reduce alcohol levels and modulate negative flavors or concentrate flavors. When he thinks **What The Future**, he wonders if drinkers will accept rapid-aged beverages.



GenPop: Now that you've seen the survey results, did anything surprise you?

Larry Wu: Yeah, I really was surprised by the wine consumption with age 55-plus at 60 percent because I thought that was an area that the wine industry was counting on for growth and for maybe even high-end products. I was surprised to see [that age group at] less than 70 percent, whereas every other age group was about or over 70 percent. And 21- to 34-year-old Millennials really are consuming brown spirits, which was interesting as companies are mining for new consumers.

GenPop: What did you make of the other numbers of people who do not drink certain beverages?

Wu: That's what we're seeing as well. And anecdotally, it seems like a lot of young people just aren't drinking as much alcohol anymore. It's worrisome for the spirits, beer and wine guys. That's why you're seeing products like Fever-Tree tonic water. That's why you see the big guys making investments in products like Seedlip, which are non-alcoholic spirits, but still have that

cocktail experience, like making a Moscow Mule without the Moscow. We're seeing Spain go crazy for 0.0 percent alcohol wines. There's a company in Kentucky using ultrasound and oak staves and micro-oxidization, and they're saying in an eight-hour period they can make six-month-old whiskey. There's a guy in California who can make rum look and taste like it's 10 years old.

GenPop: We were surprised that a majority of survey respondents were open to trying rapid-aged alcohol beverages. What does that mean for authenticity and collectability?

Wu: Look at the bourbon brand Pappy Van Winkle. The "oldest" Pappy Van Winkle has such a limited production, retailers are put on allocation and have been selling spots in line to just buy it, if and when it is available. That makes the collection of that brand more important than the drinking quality. Is there anything really behind the high quality of it? I'm inclined to think that if you tasted it blind against other bourbons you might not pick it first. We've taken six-month-old bourbon that we developed and put it in the

regular bourbon competitions, and we've got six silver medals. That tells me that when a judge tastes it, they're seeing it as a legit product.

GenPop: If it's not about the age and authenticity, what is the social currency?

Wu: What we found is that maybe people aren't that picky if it's good bourbon and it's a local craft. It's still authentic, but it's more like it's an invention or a new way of making something that didn't exist before. But the experience of the final product is still the same. It almost makes the old way archaic and less necessary, meaning that you do it by choice versus necessity. We're still using the old way of putting it in an oak barrel. It's still distilled at the same rate. All we're doing is taking it out of bed earlier.

GenPop: How might that change the drinking culture in the future?

Wu: The iGens and Millennials have something in common in that they always want to learn to be artisans. Whether it's cooking or baking or forging metal, they have a desire to

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learn and make their own kind of thing. There's a brand in Seattle called Heritage Distilling. You can go make your own whiskey now and age it in a mini-barrel, and you take it with you or leave it there. This guy can't create enough classes or opportunities for people to blend, distill and build their own whiskey. It's a fun experience for people to really understand where their favorite drinks come from.

GenPop: Let's go to 2035. What might we be drinking at a great party then?

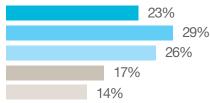
Wu: Maybe it's a variety of bring-your-own additives and mixers and having base beverages available. Maybe you'll have a bunch of non-alcoholic wines and beers that you can mix with cannabis that you bring, or your host provides to share. Maybe the host has made his or her own bourbon or gin for a tasting. And she gets to tell the story of how she made her bourbon or gin and it's a signature she's put in her own bottle and she printed off her own labels. There will still be traditional alcohol available and there will be 0.0 percent alcohol but reminiscent of old products like wine, beer and spirits. There will always be a place for Bacardi rum and Jack Daniels, but you'll find a lot more smaller brands. What you'll find at parties is people presenting themselves in a different way through products that they've made that they're super proud of - if they're still drinking.

Age matters — when it comes to price

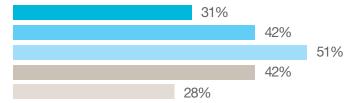
How important is the age of each of the following alcoholic beverages to you when purchasing them?

Beer Wine Whiskey/Bourbon/Scotch
Brandy/ Cognac Tequila/Mezcal

How important is the age of each of the following alcoholic beverages to you when purchasing them?



How important is the age of each of the following alcoholic beverages when deciding how much you are willing to pay for them?



Willingness to try rapid-aged (among those who were interested in trying rapid-aged beverages)



(Source: Ipsos survey conducted between March 5 and March 6, 2019 among 1,006 adults age 21 and over in the U.S. Note: half of the sample were asked if they were willing to try a rapid-aged beverage if it "cost less." This produced no significant difference in the response.)



The Millennial-ization of premium spirits

Millennials are driving change in every category, and alcohol/ spirits is no exception. And the differences in their behaviors and preferences suggest big changes for the future of luxury and premium spirits marketing.

Millennials, in general, buy and spend more on all types of liquor, especially top-shelf brands. They typically pay more for a bottle of spirits than any other generation. That's surprising, as they have lower incomes and net worth than older generations and are likely still identifying their liquor preferences.

This behavior suggests that pricing and new offerings for spirits will move northward—and possibly leave some current premium entrants looking more mainstream.

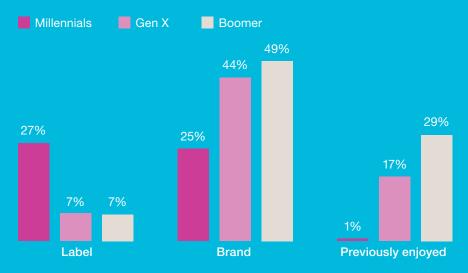
Problematically, Millennials care a lot less about "brand" than any other generation, according to the lpsos Affluent Intelligence study, which is the longest-running continuously-fielded survey measuring attitudes and behaviors of high-income shoppers.

Across categories, Ipsos has seen this hunger for the new and different by these shoppers. As such, packaging and labeling can go a long way toward sparking their interest, as Millennials report that they consider the label as much as they do the liquid in the bottle.

Perhaps most surprising, they give little consideration to whether they've enjoyed the product before. Instead, the promise of the new, the exciting and the higher-end outweighs the guarantee of prior satisfaction. The challenge for manufacturers will be to convey this promise without turning away long-term brand users.

Michael Baer is a senior vice president and head of audience measurement at Ipsos.

What do you consider when purchasing premium (any liquor)?



(Source: Q4 2018 Ipsos Affluent Intelligence recontact survey among 1,000 U.S. adults.)





Ray Daniels

Founder and global director, Cicerone Certification Program

52%

Percent of people in a 27-nation survey who believe anyone over the age of 18 should be allowed to consumer beer

(Source: Ipsos Global Advisor survey conducted between Nov. 26 and Dec. 07, 2018 among 18,310 adults across 27 countries.) There is a fair amount of historical evidence that suggests growing grains to produce beer is the reason humans morphed from hunter-gatherers to an agriculture-based society. Yet in the past 20 to 30 years, there's been an incredible efflorescence. What does innovation look like in an industry that is as old as civilization itself?

Ray Daniels founded the Cicerone program, which essentially certifies beer experts as sommeliers are wine experts. He's written numerous books on beer's past and present. When he thinks **What the Future**, he's wondering how other new beverages and consumption patterns will change. Over beers in a local tap room, he talked through the trends.

GenPop: What does innovation look like in the beer world?

Ray Daniels: Take anything that you can imagine eating or drinking, and we want to brew beer with it.

GenPop: So we'll see a proliferation of specialty drinks?

Daniels: Brewers large and small are basically engineering beverages to suit consumers' tastes and drinking occasions. That fits with general consumer product trends - micro tailoring of products. Everybody wants to feel like they're special, that they've got a product that's just right for them and their friends.

GenPop: Your survey questions asked about how people get their beer and where they consume it. Any surprises in the data?

Daniels: I feel sorry for two-thirds of the population who don't have friends bring alcohol to their home. What's that about? I mean come on, people! If you come to a house, don't come empty-handed.

GenPop: Other than the lack of manners, did anything else surprise you?

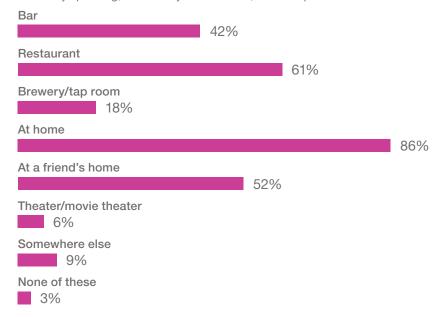
Daniels: Only 86 percent consume beer at home? I would've thought everybody who's a beer drinker drinks at home. The thing that is here that didn't exist 20 vears ago was the brewery tap room. at 18 percent. It wasn't that long ago that only 10 percent of the population ever had a craft beer, so nearly 20 percent are now saying that they're drinking at a tap room or a bar. That's a big change. I think that a lot of this trend toward tap rooms is the local aspect of it.

GenPop: And they get to keep making and testing smaller batches and selling new products to keep customers coming back.

Daniels: Breweries have flagship beers. That's the stuff they're going to sell in volume, but they need specialty beers to attract attention. That went from a kind of quaint, solid, marketing practice into something that's just this hamster wheel of a constantly changing supply of specialty beers.

How and where we consume alcohol

Generally speaking, where do you drink beer, wine or spirits?



Most still buy their drinks at a liquor or grocery store

When you drink alcohol at home, which of the following ways do you get alcohol to your house? Do you...



96%

Take a refillable container to a brewery/winery/distillery and have it filled or trade in to take home

6%

Have alcohol delivered to your home

6%

Friends bring alcohol to your home

Other

2%

(Source: Ipsos survey conducted between Feb. 25 and 26, 2019 among 797 beer, liquor and wine consumers in the U.S.)

GenPop: It is hard to keep up sometimes.

Daniels: There are literally people who call themselves beer drinkers that don't want to drink the same beer twice. For those of us who come from a traditional beer drinking background, that's pretty stunning.

GenPop: What impact is cannabis going to have?

Daniels: Jim Koch from Boston Beer Co. is fond of saying, "I think people have been smoking marijuana for a long time and still drinking beer." That's the optimistic point of view. The other point of view is that legalization makes it OK for people to explore marijuana as an alternative to beer. The question is whether it reduces beer consumption. You can eat a 10-milligram edible in 30 seconds. But what are you going to do with your hands and your mouth for the rest of the night? It's kind of like shots. So maybe marijuana is going to be a substitute for the shot, and the beer is what actually occupies you.

What is the global view of

Many see an increase in usage

In my country 10 years from now... (global results shown)

55% Marijuana for medical use will be legal.

33% Marijuana for recreational use will be legal.



48% Usage of e-cigarettes/ vaping devices will be higher than today.



Consumption of beer, wine and liquor will be higher than today.



Usage of illegal drugs will be higher than today.



The variety of beer, wine and liquor available to consumers will be greater than today.



'vice' over the next decade?

							Views on marijuana vary widely
			vn				To what extent do you agree that
		atry thi	WK.	ce.	a devi	ices and liquor	All countries Highest Lowest
	ach c	ountry thing the strike of the	ise catio	nal use cigarettes/ cigarettes/ Un	aping	ices and liquor wine gal drugs wine and liquor wine and liquor wine and liquor	Marijuana has medicinal value.
* 90	es each	or medica for	Lecles	igarerunior	of bee	gal druss beer, will a	• 68% (Canada)
What	Marijuan M	larijuane U	Sade or	onsumb	sage or V	wine gal drugs griety of beer, wine and liquor	76% (U.S.)
55	33	48	47	47	56	All countries	• 17 % (Turkey)
69	38	50	53	51	53	Argentina	
75	45	56	43	54	66	Australia	Marijuana should be legal in my country for medical use.
55	30	49	42	48	54	Belgium	• 73% (Canada) • 76% (U.S.)
48	29	40	56	49	63	Brazil	14% (Japan) 76% (Chile)
83	79	51	41	44	65	Canada	
74	46	53	57	53	62	Chile	If marijuana were legal in my country for medical purposes,
63	34	50	53	55	60	Colombia	I would ask my doctor about it.
47	20	48	42	54	54	France	● 36 % (Canada) ● 38 % (U.S.)
67	30	48	29	38	36	Germany	14% (Sweden) 70% (Peru)
71	42	56	36	41	53	Great Britain	41%
35	23	43	51	53	51	Hungary	
41	27	44	62	52	61	India	Marijuana is addictive.
52	29	36	38	39	44	Italy	• 43% (U.S.)
9	4	35	10	24	27	Japan	● 49% (Canada)
46	21	48	45	50	45	Malaysia	29% (Hungary) 63%
73	50	56	55	47	55	Mexico	
61	27	50	52	46	55	Peru	Marijuana should be legal in my country for recreational use.
62	26	46	48	43	59	Poland	● 51% (Canada)
20	8	44	35	30	54	Russia	53% (U.S.)
62	34	47	63	61	76	Serbia	● 6% (Japan) ● 39% (Chile)
82	74	74	78	72	80	South Africa	
29	12	46	45	38	67	South Korea	If marijuana were legal in my country for recreational purposes, I would try it.
51	29	34	44	41	54	Spain	• 34% (Canada)
45	17	46	31	40	45	Sweden	35% (U.S.)
18	15	52	55	55	51	Turkey	● 6% (Japan) ● 34% (Chile)
81	71	49	42	42	58	U.S.	

(Source: Ipsos Global Advisor survey conducted between Nov. 26 and Dec. 07, 2018 among 18,310 adults across 27 countries. Note, not all questions were asked in all countries. For full datasets, please visit Ipsos.com/en-us)

Will CBD be cannabis' biggest high?

The cannabidiol market is relatively small today at an estimated \$200 million. However, CBD, as the cannabis derivative is called, is expected to explode in the next several years, growing to anywhere from \$2 billion to \$20 billion.

CBD is an oil-based byproduct of the cannabis plant. Unlike its cannabinoid cousin THC, it won't get you high; however, it offers many other benefits. Preliminary research suggests it can aid in treating a wide variety of health concerns, including sleep disorders, chronic pain and anxiety.

The popularity of and public interest in CBD has spurred significant innovation and product development efforts across an eclectic grouping of product categories. From bath bombs to pet food—everyone wants a piece of the pie. While there is an inevitable learning curve for consumers, since certain forms are still illegal in many states, there is already marked consumer interest in these products.

Initially branded as a fad for stoners and tree-huggers, CBD has transitioned quickly into the mainstream. Even Martha Stewart, the queen of American domesticity, has jumped onto the bandwagon with a soon-to-be launched line of CBD products for Canopy Growth (see our interview with CEO Bruce Linton on page 8). If the U.S. government removes its classification as a Schedule I narcotic, as former Gov. William Weld hopes (see page 5), we should expect a significant increase in research dollars to assess the full range of CBD usage applications, efficacy and more. This regulatory relaxation would also further solidify CBD's status as a product ingredient with mass-market appeal.

THC, the leading psychoactive constituent of cannabis, also draws interest in extending well beyond smoking or vaping.

It is not every day you see an emerging product so quickly and heavily influence a categorical grouping of this breadth or variety. The ongoing integration of cannabis byproducts into established categories, like food and beverage, will pose interesting challenges for brands both large and small. How will they overcome the "weed stigma"? How will they develop products that can maintain relevance despite not fully understanding the benefit-usage equation? How will they scale, given the very complex and nuanced state-by-state laws for anything related to cannabis? And the list goes on.

Jessica Schneider is president, US Innovation at Ipsos.

There is high interest in both THC and CBD products across categories

Assuming it were legal for you, how likely are you to try the following if you wanted to consume:

A. a non-intoxicating CBD product primarily for medicinal/health benefits?

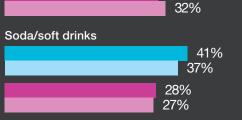
B. a psychoactive THC product to help change your mental state?

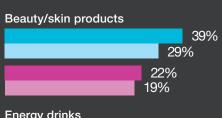














(Source: Ipsos survey conducted between Feb. 25 and 26, 2019 among 1,005 adults in the U.S. and between Feb. 26 and 28, 2019 among 1,004 adults in Canada. Canadians were asked slightly different questions due to the legality of cannabis products.)



Sports betting, traditionally a Las Vegas-controlled industry, is inching closer to being legal, one state at a time. Jay Kornegay, who already runs the largest sports wagering facility in the world, Westgate SuperBook, is thinking about expansion.

When he thinks **What the Future**, he wonders what people are willing to bet on, and how mobile will impact that. There's a lot of blue sky in betting—as long as people get over the stigma and misconceptions. Here's what has him feeling optimistic.





GenPop: We see in the survey that people are more comfortable with the idea of betting on sports than on events, like political contests or entertainment events. Why is that?

Jay Kornegay: I don't think there's as big of a desire to wager on those type of events, I agree with a lot of that.

Just because I'm a bookmaker doesn't mean I want to be taking wagers on everything that's out there. There are things that people have information about. That would be concerning as a bookmaker. I don't mind taking bets on the Oscars up to the point where they start collecting all the votes. I would have an issue with it if we were to take wagers all the way until Oscar night because somebody knows.

GenPop: Depending on the type of event, 20% to 30% of people say they're interested in betting. If you're trying to convert some of the rest, how do you go about educating them?

Kornegay: We try to educate them not only about how to wager on sports but also responsible gaming. There's a big difference between wagering on a single game and trying to hit a 15-team parlay, although the entertainment value of betting on sports is through the roof. You can bet \$5 or \$10 and be entertained for two to three hours, possibly longer. You certainly are going to root a little harder when you have 20 bucks on that team.

GenPop: With the growth of mobile and the possibility for in-game bets on aspects of the game like "who's going to score the next touchdown" or "who's going to lead in the 5th inning," it seems like there's potential for the sports to

adjust to accommodate that, or even new sports to develop with wagering baked in from the start.

Kornegay: There is kind of a blank canvas out there with the wagering, and as technology evolves and allows us to expand our world, the possibilities and the options are endless. There are certain sports that probably can use that type of boost of interest. I was talking to some officials [of a major sport.] They were trying to get their head around the gaming side. I said that it should be more interactive and they should embrace it. As fans have a little bit [invested in the event], the more interest they'll have.

GenPop: People tend to lump legitimate betting on sports with things they see on TV. They'll see a story about betting on which song Maroon 5 would play first at the Super Bowl, which is something you can't do through an official sports book. But overall, are opinions changing about wagering?

Kornegay: Betting has always had this dark cloud hanging over it, going back to its roots, which were connected to organized crime. There's still a lot of misconceptions of what we do out here in Las Vegas. Over the last few years, everything has changed. You never used to see the spreads on college football on game day. Now there are shows about sports gambling. There's even more on the horizon as people get more comfortable with it and understand it and know that there's nothing wrong with wagering on sports. People have no idea how regulated we are. We have an audit department that is specifically for the race and sports book that audits everything that we do. It happens every single night. It's there to protect the consumer.

GenPop: Will clearing up misconceptions like that help reduce some of the stigma, especially as this kind of wagering becomes legal in more states?

Kornegay: There was a time when the NFL wouldn't even allow Las Vegas to advertise during the Super Bowl, and the next thing you know we have an NFL team and could be hosting the Super Bowl soon. So, the climate changes very quickly.

GenPop: If you were a betting man, what would you see as a timeline when sports betting like this is legal in most, if not all, states?

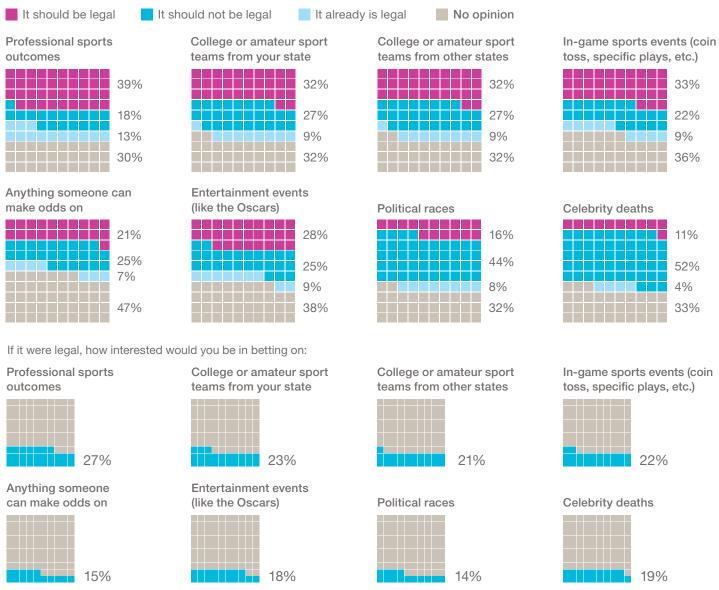
Kornegay: As we speak, there are 12 to 14 different states that are seriously entertaining the idea. So that means you're looking at anywhere from 15 to 25 to 30 states having some form of sports betting within the next two or three years.

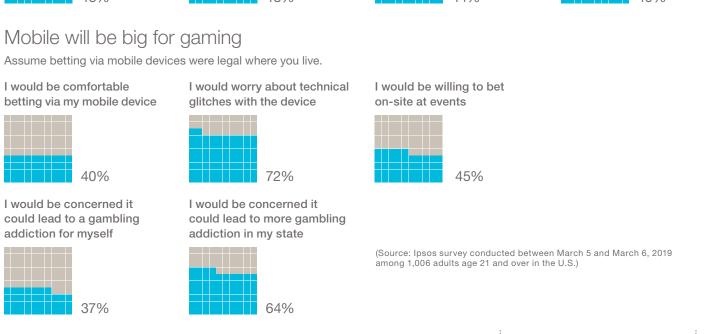
GenPop: As the leagues get on board, the states start making money and betting is seen as a non-tax revenue source, will that snowball more quickly?

Kornegay: That's always the driving force. But I think [the states] need to do their due diligence and know exactly what that's going to bring. [Politicians and legislators] are announcing this as a potential \$250 billion business. They were talking about "handle" [the total amount wagered], not necessarily revenue. It was a little disappointing that that type of information gets out there these days. The revenue streams [for states] are probably not what they think they're going to be.

Not everyone is willing to bet on legal wagering

Please indicate your feeling about legalizing betting on each of the following in your state.







Sports gambling hasn't had the greatest reputation in popular culture. Bets happened in clandestine telephone booths or dark, smoky back rooms. Online gambling first grew its roots through gray market sources.

However, perceptions are improving, as sports betting and online gambling become legalized throughout Canada and in pockets of the U.S., with some regulatory strings attached. But a change in perceptions is not happening as quickly as some would like. As we've seen in the rest of this issue, just because something becomes legal, or becomes less of a vice, doesn't mean the market is suddenly ready to embrace it with open arms. Nor does it mean that people immediately understand the new laws and regulations or, more importantly, the products and offerings themselves.

Ipsos research shows that barriers exist for the adoption of online betting, the modern vehicle to place a sports bet today. This syndicated research that measures attitudes and usage in the U.S. and Canada highlights that trust in online gambling sites is very low - not a surprise, given that the average Canadian has access to only one legal and regulated online gambling website. Financial concerns are a factor as well, which is consistent with any form of gambling. Ipsos looked at how barriers to online play differed across generations. Younger generations, for example, were much more likely to reject gambling in general or, alternatively, not know where to start.

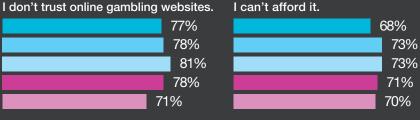
All of this points to opportunities for gaming and lottery companies to educate people on the ins and outs of the industry and the rules in each state or province. Taking a role in that education has the additional benefit of helping to foster much-needed trust between brand and customer.

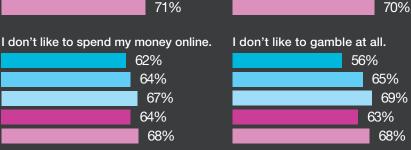
Paige Schoenfeld is a Director for Ipsos Lottery and Gaming

Is online gambling a safe bet?

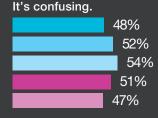
Below are some reasons why people say they do not gamble online. For you personally, how much of a barrier to gambling online are each of the following reasons?



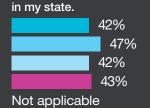












(Source: The 2018 Gaming XYZ Syndicated Study)

44%

46%



GenPop: You framed this privacy question in a very unique way. Why?

Cindy Cohn: I've always had an intuition that despite the political framings, issues like these aren't particularly political for people. I think that when it comes to questions around law enforcement, the question is often framed from a law enforcement perspective. I'm glad to see it borne out that when you ask people what [privacy] means for them, and you put them at the center of the question, you get very different answers.

GenPop: The thing you hear people say is, "I don't really have any secrets. Who cares if hackers or the government know about the sports and recipe sites I visit?" Why is it so important to protect your privacy in the first place?

Cohn: It's not just about privacy, it's about security. People may not think that they're ever doing anything that could get them in trouble with the law, but you can certainly get your mind around the fact that somebody coming in and stealing your data and impersonating you is a bad thing and can cause you a lot of trouble. Strong security and, specifically, strong encryption give you both of those protections. Even if your particular

personal privacy might not be that important to you, most people have a loved-one for whom it is.

GenPop: Is this kind of an analog to vaccines?

Cohn: Privacy is a team sport. Even if you don't care about your privacy, chances are you have stuff in your inbox or with the people you communicate with that can get other people in trouble, and in that way it is a little like the question about vaccines. Having a place for a private conversation, where you're sure that nobody can listen in, just feels like a basic human right. The idea that you would deny people that right, and force them to prove why they need it seems to flip the world on its head.

GenPop: If I wanted to keep a secret today, how could I do that, and how much harder is it going to become?

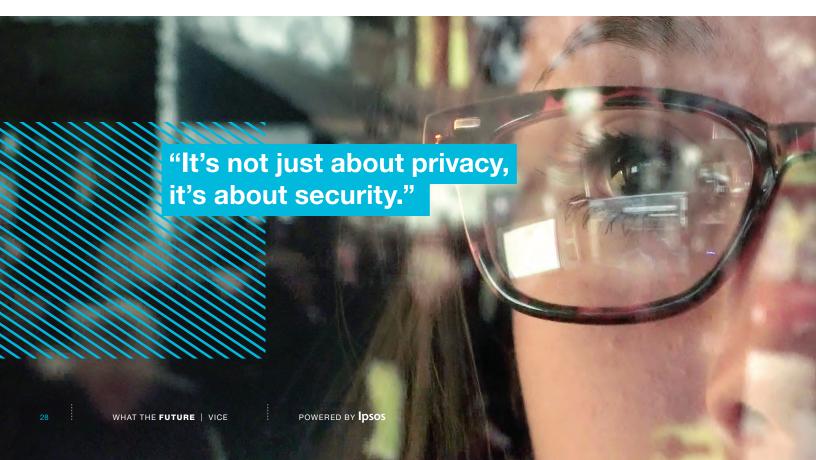
Cohn: Well, it kind of depends on whether people are willing to dig in and say no to the governments. Today we have a pretty good way of protecting your secrets. If you use something like Signal or WhatsApp as a way to communicate a secret thing to somebody else, you have pretty strong encryption that's available. But all of these platforms don't tie together very well or seamlessly. One other challenge is that

most people want to have their data backed up to one of the cloud services. It's really wise as a matter of computer hygiene. [The data is] often encrypted. But the [cloud service] company has a way in, and then law enforcement takes advantage of that [access].

GenPop: As we're having this conversation, I've got two phones that could conceivably be listening to me. I believe my TV has a microphone in it and possibly a camera. I could have a voice assistant nearby. So even if I'm using the best privacy protection tools, all these other devices can be tracking what I'm doing.

Cohn: We really need to set policies and laws and systems in place to make those systems just work for you instead of having a secondary agenda. I believe in technology. I think technology can help make our world better. But right now we have these technologies that pretend to be about you but they actually have a second—I would argue a primary—agenda about surveilling you sometimes for purposes of placing ads and sometimes for other purposes.

GenPop: Is using all of these tools a tip-off to law enforcement that I'm trying to hide something?



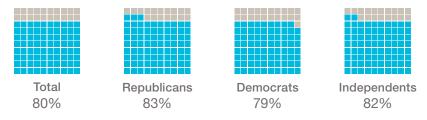
Cohn: That's one of the reasons why people who don't have a personal worry should start using these tools. Just like it's normal for people to use envelopes so they send their mail from here to there. You can send a postcard, but most people don't, and nobody thinks the fact that you chose to use an envelope rather than a postcard reflects anything of you. I kind of jokingly call that the "I am Spartacus" approach.

GenPop: The other thing you hear people say is, "I'm just one person. What can I do? If I say no to every privacy policy that doesn't protect my privacy, I won't have access to all of these helpful, modern tools."

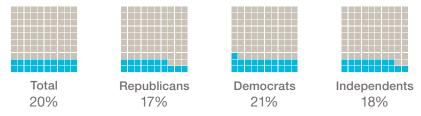
Cohn: I call this privacy nihilism. There is a real risk that the framing of this can really lead people to give up and not want to pitch in, or think that they don't have any power and that the game is lost. I think that people underestimate how powerful they are. People tend to think that the government we have now and the rules now are the only rules that could ever be. But that's not true. People have more power if they want it. We are in a time when people really want more control of their data and data about them. Overwhelmingly, people don't want their security protections dumbed down just because it might give law enforcement a slight edge on catching the criminals.

Reframing privacy around people

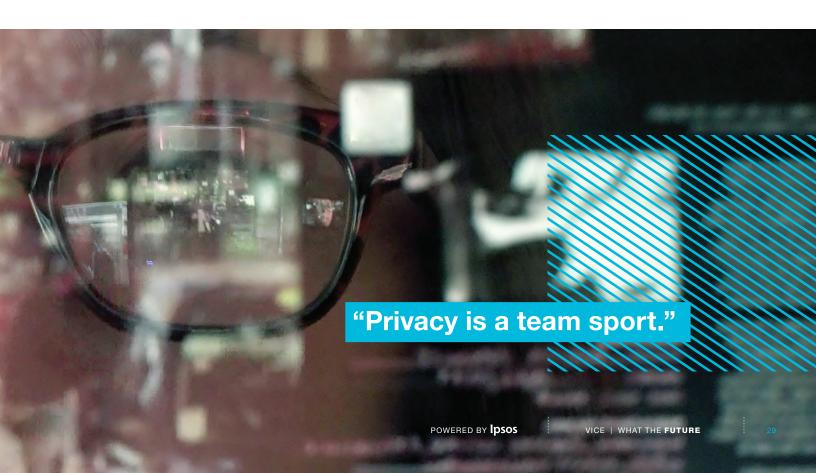
Which would you prefer: Strong security and encryption, which makes it difficult for you to be hacked, but also more difficult for the government to be able to catch hackers.



Or: rules that prevent strong security and strong encryption, which make it easier for you to be hacked, but also may make it easier for the government to catch the hackers.



(Source: Ipsos survey conducted between Feb. 7 and 11, 2019 among 2,010 adults in the U.S.)





We pride ourselves on burning the midnight oil: working long hours, getting little sleep and optimizing our daily routines for maximum output. As it turns out, productivity is a vice, and we're all addicted to getting stuff done. (Or at least feeling like we are.) WTF asked quantitative futurist Amy Webb to give us some ideas of things to watch.

- **1. Getting paid while you sleep** Distributed computing is a process where large computer problems are broken down into smaller segments that can be calculated on multiple regular computers, instead of on centralized super-computers. Distributed computing technology enables idle processor time on personal laptops, cell phones and other digital devices to become a valuable resource. There are a number of distributed computing startups hoping to take advantage of our smartphones and smart devices in the Internet of Things era. The Golem network platform shows how idle computer resources are a valuable asset that can be monetized. Golem is built upon the Ethereum blockchain, where users can rent out idle computing resources like storage, processing power and bandwidth. The platform is designed to focus on rendering computergenerated images, DNA analysis and machine learning. There are three roles in this ecosystem: providers of resources, users of resources and software developers. The intent is to use the idle processor in your phone to perform distributed computing calculations overnight to earn money in the form of cryptocurrencies.
- 2. Make your robot do it Robotic process automation (RPA) enables businesses to automate certain tasks and processes within offices, which lets employees spend time on higher-value work. For instance, Google's Duplex bot is designed to make routine phone calls to other people. Amazon uses RPA to sift through resumes before prioritizing top candidates for review. In banking, Blue Prism and Automation Anywhere help staffs process repetitive work. The availability of artificial intelligence tools and frameworks is allowing companies to digitally automate more of their functions. RPA will eventually augment staff and shift their productivity into higher gear, especially as adjacent fields like natural language processing advance. This will allow

- companies to make better real-time predictive decisions in a host of different areas, from customer service to cost savings. In 2019, the RPA ecosystem will grow to include open automation architecture and third-party service integration. However, scaling RPA beyond a handful of robots and integrations may still prove a challenge, as most organizations have yet to test managing a fleet of 1,000 customer service bots.
- **3. Productivity bots** Productivity bots help teams and individuals operate more productively by automating tasks that are time-consuming and mundane for people but perfectly suited to bots. With more than 8 million daily active and 9 million weekly active users, Slack is by far the most popular platform integrating hundreds of productivity bots into the workplace. The Obie bot, an on-boarding tool, allows new employees to find answers to simple questions about the company. Scheduling bots like Meekan sync with co-workers' calendars to provide possible meeting times. If you're trying to reduce the wasted time during a stand-up meeting, bots send out a request for an update from team members and push out a report once everyone has responded. Bots like Lunch Train help coordinate team lunches and locations. Slack isn't the only platform being used: Mattermost, Trello, Asana and Rocket. Chat are all helping boost productivity. With distributed teams and co-working spaces on the rise, automation and productivity tools will continue to move toward the mainstream, cannibalizing traditional office technology like email.

Amy Webb is the founder of the Future Today Institute, a professor at New York University Stern School of Business, and author of "The Big Nine," about the future of Artificial Intelligence.



Legalization of cannabis would have a huge impact on a wide range of industries. This issue of What the Future has touched on several related industries like beer and spirits. But a new category with so much green space will touch products and brands well beyond recreational and medical consumption as cannabis and its derivatives are used in categories like beauty, bath and even pet foods. Here are some examples.

Entertainment

Ipsos research shows that cannabis tends to be consumed in less social situations than alcohol, and without food. Does that bode well for Netflix, Hulu and other streaming services? What about snack foods? Will people get the munchies while they binge watch?

Finance

Currently in the U.S., most banks won't work with cannabis businesses because it is still a Schedule 1 narcotic at the federal level. If cannabis gets de-scheduled, the banks might start seeing green, and not just the cannabis leaves.

Medical research

The 2018 U.S. farm bill allowed for industrial hemp operations and paved the way for research and use of CBD. If cannabis ceases to be a Schedule 1 narcotic in the U.S. that will open the floodgates as researchers test its uses and its limits for pain relief, anti-anxiety and a wide range of other symptoms and ailments. The big question will be... regulation.

Mobility

Coupled with the rise of recreational THC-based products will come a need for people to find alternate means to get around, beyond driving. Having this adoption curve match the curve of autonomous fleet-based ride services could be a match made in heaven.



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