

FOODBYTES

DECEMBER 2017 | ISSUE 48 | YOUR FREE DATASSENTIAL TREND REPORT

20
18
TRENDS

HOW DO YOU PREDICT THE FUTURE?

At Datassential, it begins with our databases and tools – over a decade of menu data in **MenuTrends**, consumer ratings for more than 17,000 new menu items and LTOs in **SCORES**, consumer sentiment on nearly every flavor and ingredient you can imagine in **FLAVOR**. We combine the data with our extensive research, from our in-depth **Keynote Reports** to the 70 issues of **TrendSpotting** released annually. Tracking trends also means continually checking in on trends we have forecasted in the past to follow their movement through the Menu Adoption Cycle (MAC), from Inception to Adoption, Proliferation, and Ubiquity. And finally, every year our team comes together to contribute our first-person experiences, including the numerous restaurant immersion tours we lead annually, insights from Datassential’s future-focused **FOODSCAPE** experience, and our individual passions and backgrounds in the food industry.

All of that data, research, and experience comes together in our annual trend forecast list. For 2018, we’ve broken it down into three macro trends that will affect every facet of the industry, from the merging of food and industries like health and cosmetics to the breakneck pace of technological change. We also cover micro trends, like the growth of funky flavors, innovations in packaging, and the evolution of dining occasions. Of course, you’ll always find one of our most popular annual features: the list of flavors and ingredients that we think should be on your radar in the years ahead. This year we cover everything from ube to kolsch to the next generation of salt-cured foods.

But we’re also not shying away from the tough issues, from the concerns that you’ll have to confront because of robotics to issues of cultural appropriation and food waste. In recent years we’ve seen brands nearly toppled because of food safety issues, companies struggle as consumers reject “big business” and artificial ingredients, and some of the biggest names in the industry step down due to sexual harassment and assault allegations. There will always be difficult decisions to make and confront in the future and we’d be remiss if we didn’t cover them.

This year Datassential is also proud to introduce you to **Haiku™**, the latest technology in our trend-tracking toolbox. This soon-to-be-released artificial intelligence platform is a first in the industry, using over 20 million menu items and consumer ratings to predict the trends of the future. In this issue, discover some of the flavors and ingredients that **Haiku™** predicts will grow quickly in the next four years.

In this year’s issue we’re also bringing you updates on trends that we covered in the past. We’ll check in on trends that we forecasted for 2017 – did we get it right? And we’ll even go back over a decade to look at some of the trends that were on our radar early in the game.

Think of this issue as your data-driven, time-tested crystal ball so you can always stay ahead of the game. Let’s see what the future has in store for you...

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1

ROBOTICS &
MACHINE LEARNING

AI IS CREATING RECIPES AND ROBOTS ARE COOKING THEM

WHAT IT IS

New technologies have a tendency to look like science fiction until one day you notice that they have seamlessly and imperceptibly become a part of everyday life. It's hard to believe that the iPhone is only a decade old, Instagram is only seven years old, and Amazon's Alexa is just a baby at three years old. Even technologies that still seem futuristic – driverless cars, delivery drones – are already on the streets and in the air.

So if the world today looks vastly different than it did ten years ago, what will it look like in 2028?

Recently we've reached an unofficial tipping point, from a time when artificial intelligence, machine learning, and the widespread use of robotics in the food industry went from "probably one day" to "definitely – and soon." How we grow, make, choose, market, deliver, and consume is going to evolve rapidly, and it will require strategic planning and sometimes difficult decisions about jobs, digital literacy, and the future.

AI & MACHINE LEARNING

Artificial intelligence isn't new – the term itself was coined in 1955 – but it is changing and evolving. In fact, today's artificial intelligence programs are becoming so intelligent that they can teach themselves without any human programming at all, ushering in the dawn of machine learning. These advances will change the very ingredients we grow and eat in the future.

On farms, for instance, programmers will no longer have to teach algorithms the difference between a healthy and diseased plant – they'll teach themselves. In the future they'll learn and make decisions about every aspect of farming, a notoriously difficult industry with a seemingly endless number of variables to weigh and react to. In the future companies could grow and have access to crops that were too labor intensive previously, or machines could discover ways to grow foods in environments that were previously considered inhospitable.

Machine learning is also crunching the numbers on which plant-based proteins can best mimic animal products to create new plant-based foods that taste and feel just like the real thing. "They've created a machine-learning algorithm that can really take the molecular structure of all the different proteins in plant-based foods that exist today and then combine them in ways to create new flavors and tastes," IndieBio founder Arvind Gupta told *The Ringer*, speaking about NotCo, an up-and-coming food manufacturer that combines both protein data and human taste scores in its algorithm. Among other products, the company has created a chocolate that it says can "fool human taste buds" using only 15% of the expensive cacao bean. Other AI-based technologies are telling stores what and when to stock goods, helping restaurants predict and prepare for demand down to the individual dish and hour, and helping companies understand customers based on millions of data points to customize marketing and brand experiences. Consumers will experience machine learning in other ways, like asking digital assistants to create personalized food and recipe recommendations based on purchases and behaviors.

ROBOTS IN-DEPTH

These machine learning algorithms will work hand in hand with advances in robotics. The same farms that employ AI technologies may be packed with crops grown specifically because robots can harvest them, while millions of sensors and drones monitor, react, and tend to each individual plant, possibly in an indoor, human-free farm.

Some stores are already testing inventory robots that continuously scan store shelves, day and night, which feed that information to the AI systems that develop purchasing plans. Lowes hardware is using a Fellow NAVii robot to inventory stores in California, but customers can also interact with the robot and ask simple questions. ▶

(CONTINUED)

Robots are already in use in foodservice. Zume Pizza, which uses robots for everything from pressing dough to dispensing sauce, began expanding to additional cities this year. Café X, a fully-automated robotic coffee shop based out of Hong Kong, opened in San Francisco in June.

We're quickly reaching the point where robots and technology are becoming both incredibly advanced – capable of doing jobs that were previously reserved for humans – and far more affordable at a time when labor costs are rising. Hideo Sawada, the CEO of Japanese travel company H.I.S., recently told *The Atlantic* that he believes 70% of the jobs in Japan's hotels will be automated within 5 years, noting that it currently takes only about a year or two to recoup the investment and that the country is facing a shrinking population and labor shortage.

At this rate of advancement, it's not unheard of to imagine a point in the near future when AI will tell farms to grow particular crops, a self-driving vehicle will deliver those crops to restaurants, a machine will develop a recipe, and a robot will prepare it and serve it to customers, the point of consumption being the first time a human had any contact or even thought about the food at all.

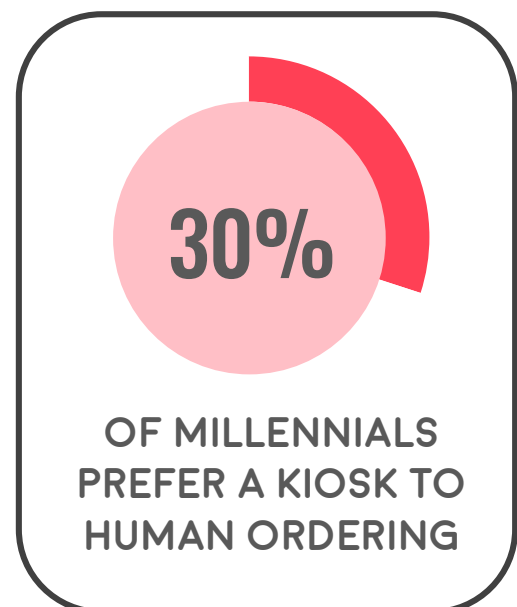
CONSUMER ACCEPTANCE

These changes, like any major changes, can be both exciting and scary, which is why discussions and debates over ethics, privacy, safety, and economics will only become more visible and important in the years ahead. While the rapid pace of technology advancement can cause companies to race toward innovation to keep from getting left behind, intelligent and informed decision-making is essential to avoiding pitfalls.

In Datassential's recent issue of **Creative Concepts: Robots & Technology**, over three-quarters of consumers said they were at least somewhat concerned that robots will replace human workers and nearly a quarter were "extremely concerned." While our jobs have always evolved throughout history, companies and society as a whole will have to work to ensure that we have the education and training systems in place to prepare workers for the next generation of jobs.

It's also important to consider digital literacy and access. In that same issue of **Creative Concepts**, there was not a single technology we tested, from mobile and kiosk ordering to augmented reality, that over half the population had experienced or tried, and usage was often in the single digits for older consumers. And while prices are dropping, many of these technologies are still expensive and out of reach for many consumers. Don't take customer familiarity with or access to technology for granted – manufacturers and operators will need to focus heavily on user experience and education as part of their tech initiatives in the future. They'll also need to make the case for why new technologies are good for the consumer. While robotics may help a company lower costs or accomplish tasks faster, customers want to know that these technologies will lower prices or give them more options for customization.

At the same time, younger generations are clearly more comfortable with technology and robotics and in some cases they *prefer* these technologies to humans. One out of every five Millennials prefers a robot server and nearly half of them believe that a robot can cook a recipe just as well as they can. This comfort level and acceptance by younger generations means that companies should start preparing now for the technologies that consumers will come to expect in the future.

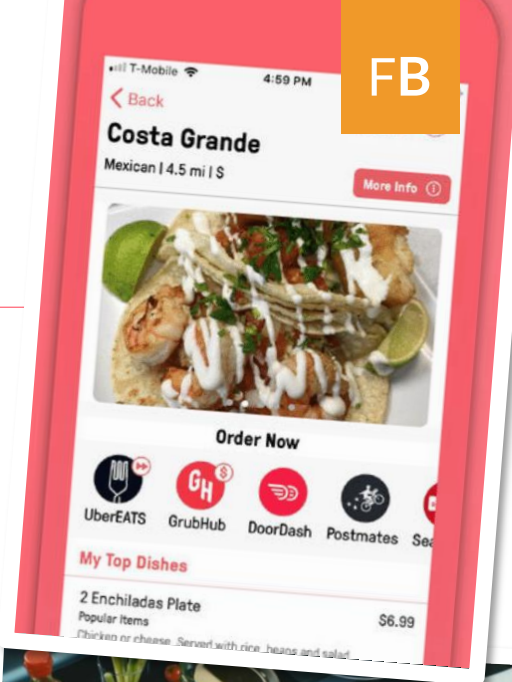




The University of Utah uses a **3D printer** to print foods that both look good and are easy-to-swallow.



This year **Flippy the burger-flipping robot** got its first job at California's CaliBurger. The robot not only makes burgers, but it uses AI and machine learning to learn new recipes, allowing it to adapt to menu changes.

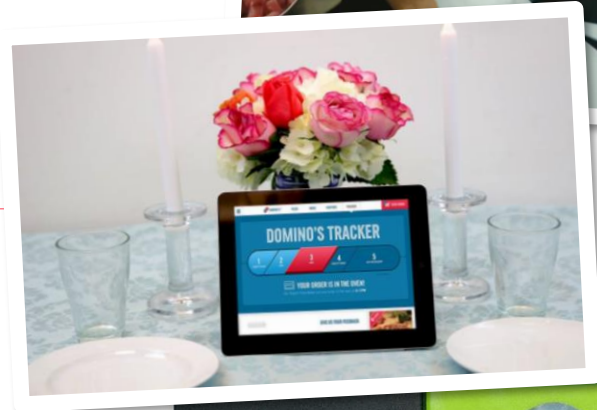


The **Halla app** uses **machine learning** to deliver custom restaurant recommendation lists based on past history, needs, and tastes.

The **Moley Robotic Kitchen** will be available for consumers next year, featuring a robot that can cook recipes based on consumer preferences and dietary needs. One out of five Millennials told us they would prefer a robot chef at home.



Domino's is an early adopter when it comes to technology. The company has put **self-driving cars** on roads, used **drones** to deliver food, and even lets customers connect the Domino's Tracker to **"Internet of Things" devices** so customers can automatically turn the porch lights on when the order is out for delivery, for instance.



Sally the Salad Robot is already in use at a number of Silicon Valley office lunchrooms and cafeterias. Chowbotics CEO Deepak Sekar, who invented Sally, told us that robots will help us eat healthier in the future and that the company plans to release one new robot each year.

Pepper the robot is specifically designed to interact with customers: he reads facial expressions to decipher emotions and respond accordingly. Pepper has already waited on customers in Nestle cafes in Japan and chains like Pizza Hut have reportedly purchased the robot for use in Asia.





INTRODUCING DATASSENTIAL'S MACHINE-LEARNING TREND PREDICTION ENGINE

Datassential is bringing machine learning to your favorite Datassential apps with Haiku™, our artificial intelligence platform that can forecast the growth of food trends with 99.3% directional accuracy. Haiku™ is trained against the industry's most robust database of menus, consumer food ratings, and concept test scores – over 20 million menu items and consumer ratings. Haiku™ can make dynamic recommendations for improving your culinary ideas, forecast sales, uncover white space opportunities, and so much more. Look for Haiku™ to begin integrating into your favorite Datassential apps in 2018, but here's a sneak peek at some of the items that Haiku predicts will grow quickly over the next four years:

TREND	CURRENT MAC STAGE	2017 PENETRATION	2021 PREDICTED PENETRATION	NET POINT CHANGE	% CHANGE
HARD ROOT BEER	ADOPTION	0.6%	1.1%	+0.5%	+80%
GHOST PEPPER	ADOPTION	1.2%	2.0%	+0.8%	+77%
AVOCADO TOAST	ADOPTION	1.6%	2.8%	+1.2%	+77%
GOSE	INCEPTION	1.8%	3.2%	+1.4%	+76%
SRIRACHA MAYO	PROLIFERATION	1.8%	3.1%	+1.3%	+75%
SHAKSHUKA	INCEPTION	0.7%	1.2%	+0.5%	+73%
CHIA	ADOPTION	1.6%	2.8%	+1.2%	+73%
COLD BREW	ADOPTION	3.4%	5.8%	+2.4%	+72%
SALTED CARAMEL	PROLIFERATION	7.2%	12.1%	+4.9%	+67%
KALE	PROLIFERATION	18.3%	30.5%	+12.3%	+67%

2

FOOD + LIFE

AS FOOD BECOMES A LIFESTYLE, FOOD AND HEALTH PRODUCTS ARE GOING TO CONVERGE

WHAT IT IS

Food has cachet – we broadcast our glitter lattes on Instagram, travel the world to be the first to experience the world’s best restaurants or to seek out the most authentic street food stalls, and purchase foods that say something about how we want to be perceived, whether it’s a matcha smoothie or a barrel-aged craft beer. At the same time, consumers increasingly want the products they buy to be more than tasty or beautiful – they want them to be functional and improve their lives. In the food industry, we’ve tracked the evolution from Healthy 1.0 (low fat, low calorie), to Healthy 2.0 (organic, local), to the embrace of functional foods and positive nutrition in Healthy 3.0 – consumers want foods that give them energy, keep them full, support their health, etc.

These two consumer trends – using the products we purchase to convey our values and personal brand plus the desire for more functional benefits – will increasingly cause the lines between the food industry and other industries to blur and converge. Food manufacturers will seek out new ways to infuse their products or brands with the functional benefits found in the cosmetics or health industries, while health, cosmetics, fashion, and other industries will adopt food terminology, ingredients, and flavors to capture some of their values, prestige, edge, and function.

IN-DEPTH

“Do I eat it, slather it on my face, or both?” asked one beauty blogger when reviewing a coconut oil product. The aisles at cosmetics stores like Sephora and Ulta are full of products that would be right at home at the supermarket, like the Nails Inc. Acai Bowl Nail Polish Collection or the Kale + Spinach Green Tea Superfood Cream. A number of flavors and ingredients that are growing up in cosmetics, while ingredients that were once limited to skincare and beauty supplements, like

charcoal and collagen, are appearing in new dishes and food products. Both the food and beauty industries are using ingredients like caffeine and coffee to create functional products. Carlsberg Breweries worked with Urtegaarden cosmetics to develop a line of men’s skincare products featuring barley, hops, and yeast, while BRÖÖ infuses its line of shampoos with craft beer. At a time when consumers are demanding “clean ingredients,” some cosmetics companies are touting that their products are so pure customers can eat them, like Supermood’s Egoboost line of chaga mushroom cosmetics.

At the same time, food manufacturers and operators are increasingly looking at ways to move into the life sciences and health space. Nestlé recently announced it would purchase Canadian vitamin and probiotic maker Atrium Innovations for \$2.3 billion as part of the company’s ambitions to become a complete “nutrition, health, and wellness company.” Foodservice operators are using health-driven language and ingredients to create restaurants where feeling good is the main message. At Nectar Juicery, in Vancouver, neon signs exclaim “Heal Thy Self.” “We are a health company,” owner Tori Holmes told *Montecristo Magazine*, noting that the shelves are filled with ingredients like triphala (for digestion) and lion’s mane (circulation).

THE FUTURE

The lines are only going to get blurrier as industries break down the walls to create holistic experiences for consumers. Fashion, health, beauty, technology, automotive, entertainment – expect food to play a greater role in all of these industries. If you are a manufacturer or operator, it’s time to start seeking out ways to incorporate cultural identifiers and functional ingredients that matter to your customers.

HEALTHY 1.0

Throughout the ‘80s, ‘90s, and early 2000s, the definition of health was focused on weight management. Products and dishes highlighted what they *didn’t* have in them – they were low-calorie, zero-fat, and low-carb.

HEALTHY 2.0

Starting in 2004 and still in action today, the next generation of “healthy” was all about feeling good. Foods that were natural, organic, sustainable, fresh, and local were (and are) everywhere.

HEALTHY 3.0

Now, concurrently, a new generation of health foods are emerging focused on function and positive nutrition. Consumers want to know what their foods and products will do for them – supply protein and energy, support their health, etc.

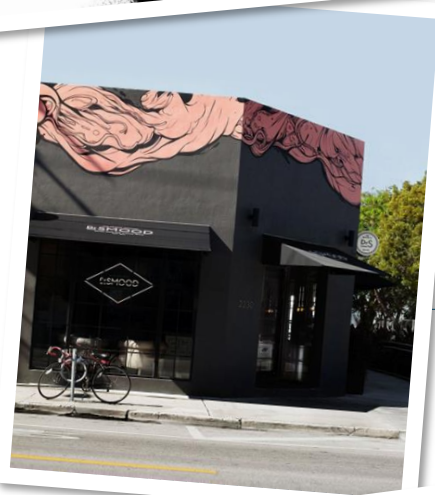


Neo-Juicery's **Cold-Pressed Juices and Medicinal Elixirs** proclaim functional benefits like "building blood" and "relaxation."

The "Yes To" line of products is **made with fruits and vegetables** like carrots and tomatoes.



Dr Smood, a lifestyle health brand that focuses on "smart food for good mood," has 10 cafes in the U.S., with a **menu designed by a holistic nutritionist**. The shops feature low-acid white coffee infused with anti-inflammatory spices and a variety of supplements to take home.

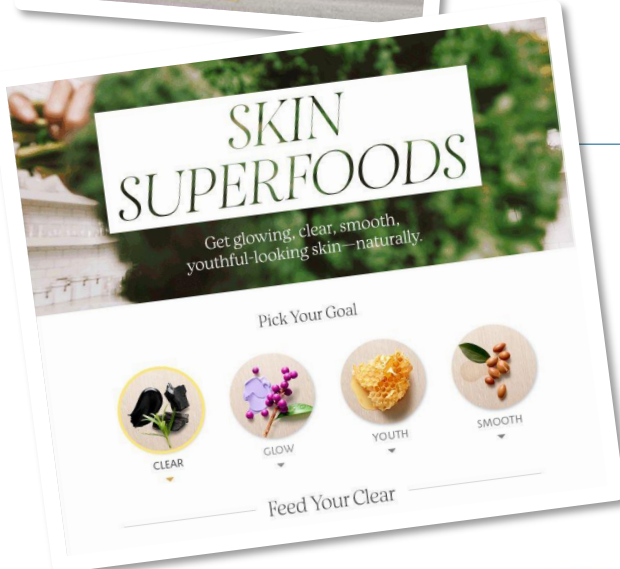


Youth to the People's **Kale + Aloe Sunflower Oil Tripeptide 5** eye cream.

Beauty & Go's says consumers should be "drinking their skincare" with its line of **Bioactive Beauty Drinks**



This summer Jamba Juice added a **Collagen Boost** option to the menu – customers can add it to smoothies for "glowing skin, reduced wrinkles, and improved joint health."



Cosmetics chain Sephora asks visitors to pick from goals like "Glow" and "Youth" and recommends a range of "**Skin Superfoods**" like Charcoal Jelly Ball Cleansers and the Collagen Inner Beauty Boost drinkable elixir from The Beauty Chef.



Smoked turkey cranberry pemmican soup with wild rice cake, fiddlehead fern, popcorn shoot, sorrel, and cranberry wojapi broth from Sioux Chef Sean Sherman.



3

EMBRACING AND RESPECTING NATIVE AMERICAN CUISINE

“This is not a trend,” chef Sean Sherman told the *Washington Post* when asked about indigenous or Native American cuisine. Sherman, otherwise known as “The Sioux Chef,” has arguably done more to teach the general public about indigenous food culture in recent years than any other figure, paving the way for restaurants like Denver’s fast casual Tocabe and numerous fine dining pop-ups across the country. But Sherman is wary of attempts to reduce the ever-changing cuisine down to a few dishes or ingredients. He’s not the only one – debates over cultural appropriation and commodification will loom even larger in the years ahead. That’s not to say that food can’t be a force for conversation and change. “We’ve been sharing recipes for millennia,” Kiowa chef and researcher Lois Ellen Frank told the *Post*, noting that she encourages the embrace of indigenous dishes if it means that native providers, like rice harvesters and fishermen, benefit. Understanding who benefits is increasingly important to consumers. Chefs, operators, and food manufacturers will be increasingly called upon to grapple with whether their globally-inspired dishes and products come from a place of respect, a desire to learn, and an opportunity to help.

4

BRING IN THE FUNK

Over the past few years, a number of decidedly funky flavors have been trending on menus. Fermented foods like kimchi and kombucha are growing, while sours, funky beers, and natural wines are trending on the bar menu. Chefs across the country are testing out extreme dry-aged steaks, waiting months, even years, before serving them to develop funky, umami-rich flavors. “It tastes like blue cheese on a bone,” Michael Lomonaco, chef and owner of Manhattan’s Porter House Bar and Grill, told the *Wall Street Journal*. While they’re still not for everyone, the wider audience for funky flavors means that operators and manufacturers can start looking for new ingredients and ideas beyond “salty” and “sweet” to excite consumers. Lomonaco may be on to something with his blue cheese reference – cheese is a consumer favorite and unique stinky cheeses could be a gateway for funkier flavors. Consider adding umami-rich anchovies back to caesar salads and rich pastas and using fish sauce to add a funky note to soups and stews – and calling these funky ingredients out on the menu. Embrace fermentation and consider forging new paths with foods that may not be traditionally fermented – Brooklyn-based Afineur hit the market with its fermented coffee last year, which one reviewer likened to a sour yogurt.

FUNKY FLAVORS. INGREDIENTS. & DESCRIPTORS ON MENUS

- Barnyard
- “Acquired taste”
- Wet grass
- **Stink beans**
- Blue cheese
- Vinegar
- “Not for the faint of heart”
- Rotten
- Musty
- Sulfur
- **Durian**
- Fermented fish
- Stinky tofu
- Vegemite
- Armpit
- Wet dog



5 MIXED OCCASIONS

WHAT IT IS

We tend to think of eating occasions as black and white – consumers are either making a meal at home or eating out. But the lines are far blurrier for consumers – in fact, one-third of foodservice occasions also include food from home in some capacity. On the flip side, as online ordering and new delivery technologies continue to increase the frequency that consumers bring foodservice items into their home, they'll also mix those offerings with food from home, creating new opportunities for foodservice and CPG brands to work together.

IN-DEPTH

It's easy to think of consumers as regimented and predictable, eating three square meals a day and each of those meals is either at home or at a restaurant or other foodservice location. But we know that's not true – in fact, consumers are eating up to 8 times a day on average, frequently mixing foods from home and away-from-home. They'll stop at their favorite breakfast burrito place on the way to work and eat it with a cup of coffee brewed at home, they'll eat the sandwich they made last night with a cupcake from the food truck outside of their building, and they'll order tacos for dinner but pair it with some spiced cauliflower rice from their freezer and a microwaveable cake for dessert.

These types of mixed occasions are only going to increase as consumers order more foods online or through mobile apps, segments continue to meld, and technologies make it easier than ever to have exactly what you want when you want it. In fact, 37% of consumers currently order delivery or pick up food to take home *at least* once a week, according to our **Foodservice @Home Keynote Report**, and over 40% of consumers say that they increased this behavior in the past year. Plus, consumers say they'll continue to increase their delivery purchases for most segments in the future – over a third of consumers say they are very or extremely likely to increase their ordering from casual restaurants in the year ahead.

As consumers bring more food home, there will be more meals that are sourced partially from restaurants and partially from home: they'll enjoy an entrée from their favorite fast casual with a beverage from the fridge. That's why understanding consumer eating behavior at a more granular level will be vital to product and menu development, marketing, and consumer satisfaction in the future. It's time to start thinking of meals as occasions or events that don't exclusively featured foodservice or CPG dishes and products. Understanding these mixed occasions is the key to understanding what consumers are buying, why they are buying those items, and how they are interacting with your brand. Are you missing out on opportunities to meet consumer needs that are currently being met by retail or restaurant options? Are you creating opportunities for consumers to mix foods, particularly in those occasions where they want or expect it, in order to increase their satisfaction? Are you embracing opportunities for CPG and foodservice companies and products to work together?

IN THE FUTURE

Don't expect things to get clearer – it's unlikely that those "three square meals" a day that are exclusively CPG or foodservice are going to come back any time soon, particularly as consumers have even more opportunities to make away-from-home food part of their at-home meals. Don't fight it – understand how your customers eat and what drives them at each eating occasion.

PREFER TO GET IT FROM >>	FS	HOME
Entree	86%	14%
Sides	74%	26%
Bread/rolls	64%	36%
Salad	58%	42%
Sauces/condiments	57%	43%
Appetizers/snacks	54%	46%
Desserts	48%	52%
Soft drinks	27%	73%
Adult beverages	25%	75%

6 REPACKAGED

While delivery may be the future, not every food is ready-made for delivery and some operators will have a tougher road to travel ahead. Earlier this year, in our **Foodservice @Home Keynote Report**, consumers told us that temperature, food integrity, food quality, and leaks were critical performance issues for delivered food, but they also told us that some of the hottest trends and key upsells – breakfast, sushi, beverages – traveled poorly. As more brands jump on the delivery bandwagon, expect a wide range of new packaging solutions to hit the market in the years ahead aimed at ensuring customers have the same positive experience at home as they do in the restaurant.

Spill-proof pouches and other beverage-friendly delivery packaging solutions are already hitting the market. UK-based Whiskey Me delivers whiskey in a pouch, allowing it to fit through a front-door mail slot, while nostalgic “juice boxes” are getting the wine and cocktail treatment. Pizza Hut will begin testing beer and wine delivery, though the brand says it is still deciding whether to deliver bottles or single servings of wine.

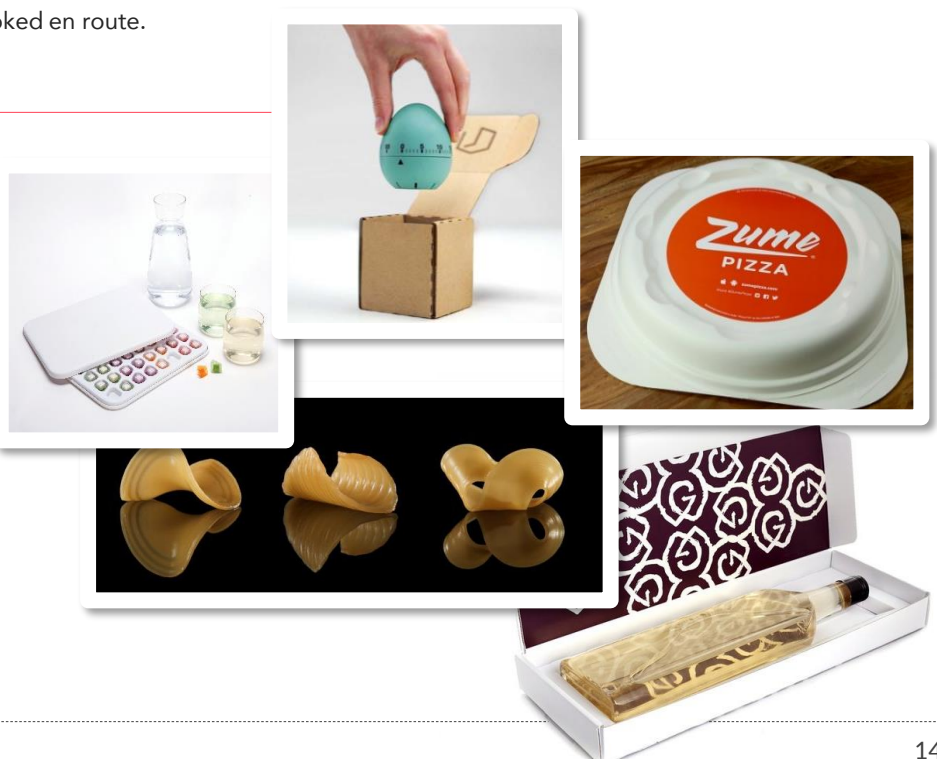
Everyone from small startups to global pizza brands are working on ways to keep food warm during the delivery process. Deliveroo, a delivery app in the UK, even has its own packaging arm for its restaurant partners to purchase delivery-tested packaging. The burger box, for instance, is made of corrugated cardboard to keep food warm but has holes in the top to prevent the bun from getting soggy. With the rise of robots and driverless cars, we’ll start to see more packaging solutions that allow foods to be cooked en route.

UPS recently partnered with Sealed Air to open its Packaging Innovation Center near the company’s cargo headquarters in Kentucky. The company notes that, with the rise of e-commerce, consumers increasingly see and interact with packaging. (In fact, this season’s hottest holiday toy is a plastic sphere with dozens of individually-wrapped toys inside – kids spend hours opening each item in lengthy “unboxing” videos posted to YouTube.)

But consumers are also concerned about waste, which has generated negative attention for a number of major brands. Twitter is full of customers posting photos of small items packaged in giant boxes for shipping or the dozens of tiny bottles and bags delivered with meal kits, while one-time-use coffee pods are repeatedly mentioned in articles on waste. A number of cities around the country have instituted plastic bag bans or taxes. Innovators are responding: LOLISTRAW, a Kickstarter campaign for an edible flavored straw, is aimed at reducing the amount of plastics in oceans by cutting down on the estimated 500 million plastic drinking straws used daily. The inventors, who already produce edible cups in flavors like yuzu citrus and matcha green tea, imagine caramel or mocha straws used to sip coffee.

In the future, expect even more radical ideas that combine consumers’ growing demand for great in-home delivery experiences with their desire for sustainable solutions.

Clockwise from top: **Slimbox** laser-cuts boxes to fit the contents perfectly to cut down on cardboard and cargo space waste. The **Zume Pizza Pod** is made from sugarcane, has ridges to divert oil and moisture, and features cutting channels to create eight equal slices. Garçon’s **flat plastic wine bottles** hold a standard 750 ml. but fit through mail slots. MIT, with funding from Target, created **pasta made from gelatin that ship flat but sprout into 3D shapes** when boiled. **KVELL Waterdrops** are marketed as the “world’s first microdrink,” with 48 servings shipped in a biodegradable container.



“If you’ve seen bread porn on your Instagram feed, you’ve experienced the Tartine effect,” said *Bon Appetit*.



7

THE RISE OF BREAD

In the past, we noted that butchers and fishmongers had become the hip artisan mascots of the food industry and in the next few years another craftsman will join their ranks – bakers. The next generation of bakers (complete with baguette tattoos on their arms) are being recognized for combining an insane attention to detail and chemistry with a willingness to take those foundations to new extremes. They are working directly with farmers to grow bespoke grains and heirloom varieties and grinding them fresh, in-house. They are seeking out ideas from around the world, incorporating techniques like the Tangzhong method which uses a roux to create tender-crumbed pastries and breads, including the trending Hokkaido milk bread. Meanwhile, consumers are making pilgrimages to the new temples of baking, seeking out the morning buns and croissants (with their perfect, Instagram-worthy layers hidden inside) at Tartine and the dark brown “well-done” breads at Bien Cuit. Magazines and newspapers can’t publish stories about bakers reviving old traditions and obsessing over details fast enough – baker Roy Shvartzapel recently told the *New York Times* that panettone is considered the “Mount Everest of baking” due to the endless number of ways it can go wrong while making the case for his \$50.00-a-loaf price, while June Taylor Company’s \$65.00 fruitcake is the result of a year’s worth of drying and candying 10 different fruits (not to mention the hand-painted wrapper).

8

INDIAN EVOLVES

As the second most populous country on earth modernizes, evolves, and plays an ever-larger role on the global stage, chefs in the country are embracing new ideas, inspiring the world in the process. While U.S. consumers may be familiar with butter chicken or tikka masala, in the next few years a wider audience will have a chance to taste dishes like pani puri and dosas. San Francisco’s hip DOSA recently opened a casual Oakland outpost; Chicago’s first dosa fast casual, Art of Dosa, will open in early 2018; and chef Jean-George Vongerichten made dosas a central part of the menu at his vegetarian AbcV in New York. Expect more Indian street food concepts to open following in the footsteps of restaurants like Bindaas, in Washington D.C., which features a variety of savory “chaat” snacks, and Juhu Beach Club in Oakland, which specializes in vada pav, or “slider-sized sandwiches.” Top Chef contestant Preeti Mistry is one of a number of chefs combining their Indian heritage with their American upbringing. Her Navi Kitchen, which opened earlier this year, combines Indian and Californian cuisine in dishes like avocado toast topped with chaat masala, a kheema kale pizza, hot tamarind wings, and a turmeric milk cocktail. Chef Asha Gomez received numerous awards for her cookbook *My Two Souths*, which combines the cuisine of her childhood in Southern India with her more recent move to Atlanta.



Chicago’s “Anglo-Indian” Pub Royale serves up dishes like salt cod samosas with malt vinegar chutney and the signature frozen mango lassi with rum, mango, yogurt, and paprika.

9 BRIGHT BOHO & RETRO LUXE DESIGN

It may be time to sell your stock in Edison lightbulbs. For the past decade, restaurants have looked like hip, curated, repurposed industrial lofts filled with reclaimed wood, brick walls, subway tile, cement floors, exposed ductwork, and corrugated steel, plus some leather banquettes for comfort. Menus filled with Mason jars of bacon and craft beer on tap fit right into the aesthetic.

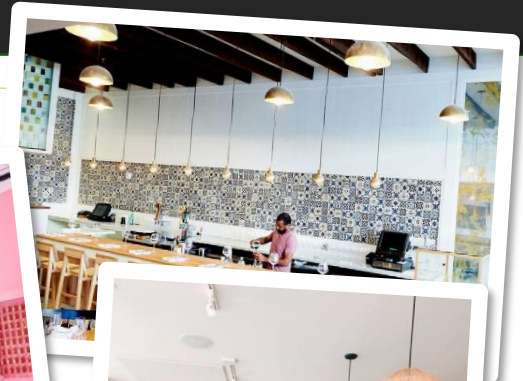
But restaurant styles are changing. In hip QSRs, fast casuals, and casual restaurants, modern industrial design is making way for homemade textiles, green plants, rattan furniture, unfinished wood, brighter colors, bohemian rugs, and patterned tiles. It's a shift from the urban feel of New York to the bright, airy, comfortable feel of California or tropical Miami – bright, boho chic. These changes also reflect the vegetable-forward dishes and lighter flavors trending on menus – think crudités platters, energy bowls, and fresh juice-based cocktails.

There's another reason brighter restaurants are trending – they look great in photographs. Instagrammability is becoming a key consideration for any commercial designer, which is why so many new restaurants feature outlandish, attention-getting design elements – 2017's most Instagrammed restaurant, 230 Fifth in New York, features giant inflatable igloos on the roof. In the years ahead, look for the neon signs, patterned wallpaper, and giant wall murals currently found in chef casuals to make their way into fast casuals and QSRs.

At the other end of the spectrum, fine dining restaurants are looking to the richer, more opulent eras of the past to create retro luxe spaces. These restaurants feature brass and chrome Art Deco fixtures, high-gloss mid-century modern tables, and golden-era Hollywood velvet chairs and banquettes. When The Grill at the revamped Four Seasons in New York opened in May, for instance, *Eater* called it "Manhattan's most luxe time machine," with servers wearing \$6,000 Tom Ford tuxedos and a massive floral arrangement at center stage.

These changes will impact both operators and manufacturers in the years ahead. While operators will have to consider the design changes that consumers will expect when creating new store prototypes in the future, manufacturers will be tasked with creating packaging and products that fit these new spaces and identities.

Sardella Café, St. Louis



Museum of Ice Cream



The Garden Table, Indianapolis

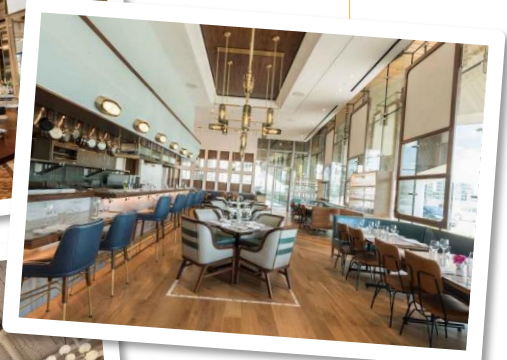


Café Gratitude, San Diego

Somerset, Chicago

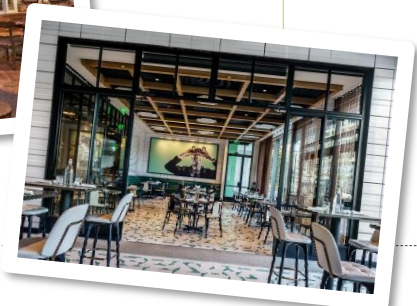


Walnut Street Café, Philadelphia



Enoteca Tredici, Bryn Mawr, PA

Glass House, Cambridge, MA



10 FLAVORS TO WATCH

1

P A N D A N

Southeast Asia continues to be a source of flavor inspiration and this versatile leaf adds a sweet, grassy, vanilla-like flavor to desserts and cocktails, plus many pandan-rich foods have a light green color that recalls other on-trend ingredients like matcha.

2

U B E

Purple may be the “it” hue for foods right now and the star of the trend – ube – has the potential to make its way through the Menu Adoption Cycle. Also known as purple yam, ube is often used in Filipino cuisine and can add a natural color to everything from ice cream to power bowls.

3

B L A C K G A R L I C

Judging by the popularity of garlic with consumers (it’s the second most-liked flavor overall according to our **FLAVOR** database), it’s almost surprising that this sweet, caramelized, umami-rich flavor is only just starting to appear more widely on U.S. menus. If you want to be an early adopter, this is where to start.

4

P E R S I M M O N

Persimmons were the fastest-growing fruit on menus in the past year, according to our **MenuTrends** database. If you are planning next fall’s menu strategy, consider this sweet-and-tangy option in a cake, pudding, or sorbet.

5

K O L S C H

Trends on drink menus continue to move quickly. On beer menus, look for lighter, more refreshing options to take a more prominent place as a reaction to the former dominance of in-your-face, hoppy, bitter brews. The top-fermented German kolsch has grown over 100% on menus in the past four years, according to **MenuTrends**.

6

W H E Y

Little Miss Muffet was hip to modern trends when she ate her curds and whey. Consumers continue to seek out protein-packed foods and this cheese byproduct can be added to breakfast foods, smoothies, and grains for a protein infusion. In Chicago, chef Sarah Grueneberg swaps out pasta water for whey in her Cacio Whey Pepe.

7

S A L T C U R I N G 2 . 0

Salt-curing is an ancient practice that is trending again as chefs test out new applications. Salt-cured egg yolks, which turn the rich yolks into a firm ingredient that can be grated over pastas and salads, are becoming a fine dining staple now, while salt-cured fruits are showing up in trendy cocktails.

8

S E E D S

Far from being a simple snack or salad topper, seeds are becoming workhorses in on-trend kitchens, where chefs are creating custom seed blends for an all-purpose textural topper and experimenting with seed-based porridges and seed-rich breads. Look for new heirloom seed varieties to start showing up in the future.

9

L A B N E H

This rich, creamy, strained yogurt is at the intersection of a number of trends – an interest in Middle Eastern cuisine, the search for both the next Greek yogurt and hummus, the proliferation of veggie-based appetizers and over-the-top crudité boards, and the concurrent rise of the spice mix za’atar.

10

R O S E W A T E R

Rose water, commonly found in Middle Eastern, Indian, and Asian dishes, was once common in American desserts and now it’s making a comeback, adding a rich, floral note to cakes, ice creams, and drinks. Use it sparingly – it’s a fine line between “distinctive flavor” and “tastes like perfume.”

UPDATES



PREDICTED: 2017 | WHAT IS FOOD?

Last year we said that companies were “questioning the very definition of food, fundamentally changing our definition of what qualifies,” using examples like Soylent and meat-free and lab-grown meats. Now the plant-based Impossible Burger is available in restaurants across the country and launched in on-site segments last month, Hampton Creek will launch its own plant-based meats and liquid eggs in the near future, and many estimate that lab-grown meats will hit retail in the next 2-3 years. Meanwhile, at Datassential’s FOODSCAPE event in August, attendees had their first taste of non/food, an algae-based meal bar that hit the market this month (above).

PREDICTED: 2017 | THE FUTURE. DELIVERED

In last year’s list we covered the delivery technology revolution, from the self-driving cars and drones that deliver food to the digital assistants that make it as easy as saying, “Alexa, order a pizza.” In August Domino’s brought us one step closer to the robot revolution when it teamed up with Ford to deliver pizzas throughout Ann Arbor, MI, using self-driving vehicles; customers punched a four-digit code into a keypad on the car which opened a window to retrieve the pizza. Autonomous delivery robots are also roving through the streets of San Francisco and Washington D.C. The digital assistant industry continues to expand: earlier this year Apple launched HomePod, its own version of a home assistant, while Amazon and Microsoft announced that their voice assistants would work together. And now that Amazon owns Whole Foods, not only are Alexa-compatible devices sold in supermarkets, but many believe that the company’s cashier-less “just walk out” technology will roll out to Whole Foods stores in the future.

PREDICTED: 2015 | FUNCTIONAL FOODS

Back in 2015 we noted that the definition of “healthy” was evolving to focus more on positive nutrition and functional foods that did something for consumers – protein, energy, etc. Many of these functions are still growing on menus – the term “protein” can now be found on a full quarter of fast casual menus. Then, last year, we said to look out for the next generation of functional foods, like detoxifying chlorella and digestion-supporting sprouted grains. What’s next? Look for adaptogens to start showing up in more foods, which some believe help the body acclimate and respond to stress. Ashwagandha, maca, schisandra, sea buckthorn, cordyceps mushrooms, reishi, and moringa are being used in tinctures, lattes, calming teas, and smoothies. While probiotics have been top-of-mind for consumers for a number of years, many are just learning about prebiotics, which support and nourish the growth of beneficial bacteria in the gut. As we noted in the Food + Life section, collagen, which many believe keeps skin, hair, joints, and nails healthy, is also starting to appear in healthy bars and shakes, while other companies are calling out the naturally-occurring collagen in ingredients like seafood, bone broth, and eggs.

Primal Kitchen Collagen Bars





P R E D I C T E D : 2 0 1 7 | T A B O O F O O D S

Last year we noted that “chefs and consumers are beginning to embrace foods and ingredients that had once been taboo or seemingly inedible,” like charcoal, cannabis, and insects. With multiple cities and states legalizing recreational marijuana use or on the verge of legalization, Constellation Brands (maker of Corona beer) purchased a nearly 10% stake in Canadian marijuana grower and supplier Canopy Growth Corporation for \$195 million this year. Cannabis market research firm Brightfield Group estimates the global legal cannabis market will reach \$31.4 billion by 2021, up from \$7.7 billion today (the U.S. currently accounts for 90% of global sales). In Las Vegas, Nuwu Cannabis Marketplace became the state’s first marijuana drive-thru when it opened this month, selling edibles and other products. Meanwhile, new distribution channels and products, plus a demand for protein-rich foods, are driving the edible insect market. “The primary source of protein you will be having within your life, definitely within 20 years and maybe within 15, will be insects,” the outgoing chief of Cisco Systems recently said, noting that he’s keeping an eye on changing trends to drive future investments. Charcoal also exploded onto menus last year, showing up in a seemingly endless parade of jet black, social media-worthy foods.

Kama’s newest cannabis-infused gumdrops are available in cocktail-inspired flavors like Cuba Libre, Moscow Mule, and Fuzzy Navel.

P R E D I C T E D 2 0 1 7 | I N S T A G R A M - W O R T H Y

Speaking of foods made for social media, last year we noted that chefs and operators were designing foods “specifically designed to go viral,” and 2017 became the year of the Instagram-worthy food. Starbucks released a succession of colorful creations – the color-changing Unicorn Frappuccino, the Zombie Frappuccino topped with “brains” (right). This month a few international coffee shops made headlines for their glitter lattes, a trend that will likely show up in the U.S. any day now. Neon signs with cheeky phrases – “rosé all day,” “get baked” – are becoming must-have restaurant accessories due to their Instagram potential, while *The Verge* notes that San Francisco’s Media Noche restaurant, with its Cuban tiles (36 Instagram posts) and flamingo mural (131), attracts visitors from China and Japan, some bringing tripods. Expect more LTOs designed for social media in 2018, while major chains will start incorporating photography-friendly elements in their remodels.



P R E D I C T E D : 2 0 1 6 | E M B R A C E W A S T E

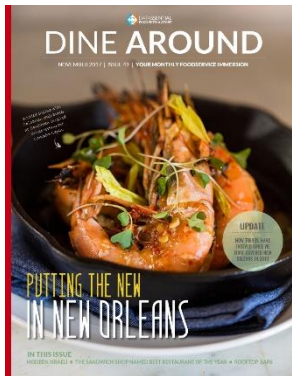
In 2016 we said that “the zero-waste philosophy is reaching a tipping point.” The scales continue to tip as governments, non-profits, and companies work together to reduce and even eliminate food waste. This year a group of researchers at Cornell University unveiled a process for turning food waste into usable bio-oil. In October Austin, TX, began phase two of its plan to become a zero-waste city by 2040; phase two is aimed at reducing wasted organic materials and by next year every foodservice establishment in the city will be required to adopt at least two organic material diversion tactics, such as composting or leftover food donation. Earlier this year New York hosted its first Food Waste Fair, while the UK is aiming to phase out food waste by 2030. Chef and media personality Anthony Bourdain’s documentary WASTED! premiered in October, featuring celebrity chefs like Dan Barber. Imperfect Produce, the ugly produce delivery company, has expanded throughout the West Coast and launched in Chicago next month, while Uglier Chips, made with imperfect potatoes, were introduced in January.

THEN + NOW

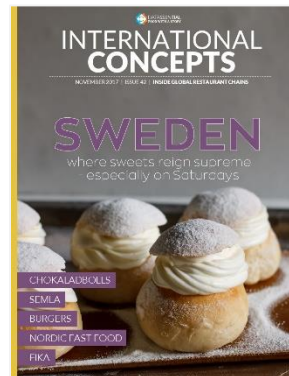
With well over a decade of trend forecasting under our belt, we thought we'd check in on some of the trends that were on our radar years ago:

TREND	PREDICTED YEAR	ON THE MOVE
HARISSA	2005	An "it" flavor that now appears at chains like Red Lobster and Red Robin.
SOUS VIDE	2005	Home sous vide machines are sold at Target and Costco.
YUZU	2006	On 4% of menus today, featured in cocktails and desserts.
CRUDO	2006	A next-level ceviche that a quarter of consumers have tried.
BLACK-HUED FOODS	2007	Jet-black, Instagram-worthy foods are now at chains like Burger King & TGI Friday's.
BURRATA	2008	Burrata went from unknown to Starbucks and Maggiano's.
FARRO	2008	An on-trend ancient grain showing up in salads and magazines like <i>Cooking Light</i> .
PHO	2009	Pho shops opened across the country and P.F. Chang's menued it.
BLACK GARLIC	2009	We tracked this trend early and now it's on the fast track and this year's flavor list.
PERSIMMON	2009	Today it's the fastest-growing produce option and on this year's flavor forecast list.
KOHLRABI	2009	<i>Time</i> magazine says this brussels sprouts cousin is the next kale.
IZAKAYAS	2011	Find them across the U.S. now – intl. chain Zuma will expand to the U.S. next year.
KOMBUCHA	2011	One of the trendiest beverages today, now found at Walmart & Target.
COCKTAILS ON TAP	2012	Find on-tap cocktails at major chains, brewpubs, and even hotels.
SHISHITO PEPPERS	2012	Impressive 179% growth on menus in the past 4 years.
GOCHUJANG	2013	Moving through the MAC as chains like Noodles & Co. and Houlihan's menu it.
N'DUJA	2013	Three years later <i>Bloomberg</i> asked, "Why is this flavor suddenly on every menu?"
MOROCCAN CUISINE	2013	Now operators can't get enough harissa and shakshuka.
SEAWEED	2013	Today seaweed is the basis for a wealth of new plant-based foods.
HORCHATA	2013	This year Starbucks introduced horchata-inspired LTOs.
SKYR	2014	This successor to Greek yogurt is widely available at stores like Target now.
UBE	2014	The star of the purple food trend is ready for the big time, up 91% on menus.
AVOCADO TOAST	2015	Chains like Baker's Square and Cheesecake Factory menu it.
CANNABIS CUISINE	2015	Corona-maker Constellation Brands is investing in the space.

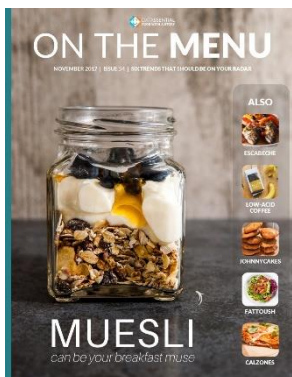
LAST MONTH'S TRENDSPOTTING



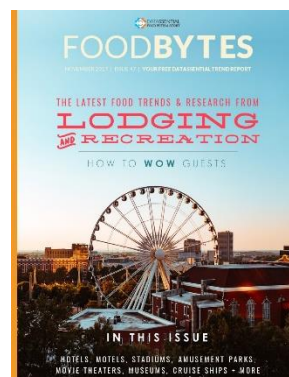
DINE AROUND
Last month we took you back to **New Orleans**, where we found unique spins on Southern favorites, from boudin tamales to crawfish etouffee, plus a sandwich shop named the “Best Restaurant in America.”
IN JANUARY: San Antonio



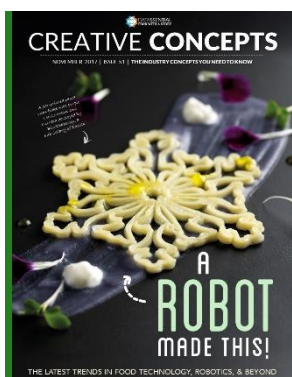
INTERNATIONAL CONCEPTS
In November we traveled to **Sweden**, checking out the chains that specialize in fika (the traditional coffee break) and Swedish baked goods, plus Nordic fast food and vegan concepts.
IN JANUARY: Healthy Chains



ON THE MENU
In *On the Menu*, we checked out **low-acid coffee, johnnycakes, escabeche, muesli, pozole, and calzones**.
IN JANUARY: Pho, octopus, risotto, and more.



FOODBYTES
Learn how to wow guests with a sneak peek at our brand new **Lodging & Recreation Keynote Report**, covering hotels, movie theaters, stadiums, and so much more.
IN JANUARY: 2017 Recap



CREATIVE CONCEPTS
Last month’s **Creative Concepts** was our biggest issue of TrendSpotting ever, featuring all of the latest **technology and robotics** in the food industry, from machine learning to digital assistants.
IN JANUARY: Brewpubs

For information about an issue or to subscribe to a title, contact Datassential Business Development Manager Susan Cohen at **312-219-6428** or susan.cohen@datassential.com

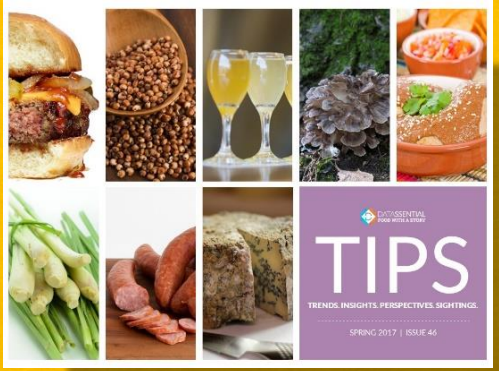
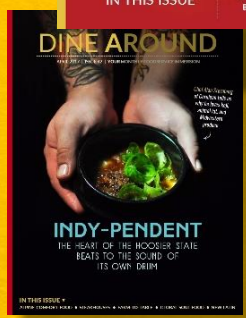
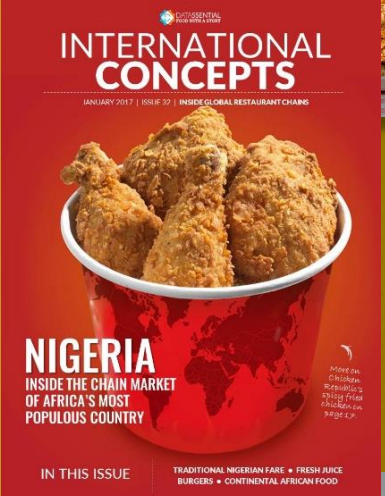
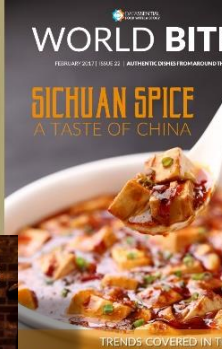
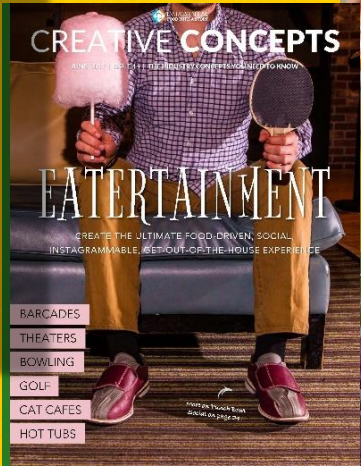
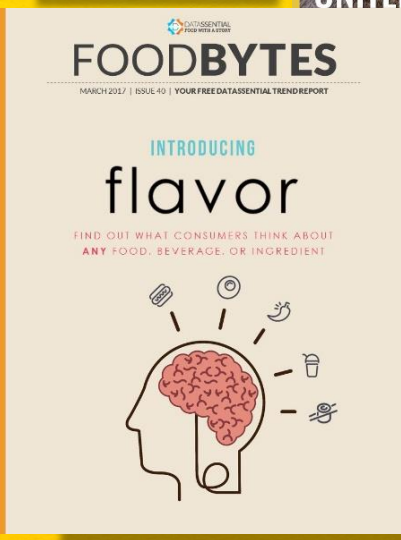
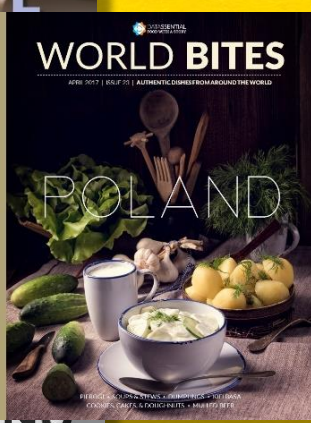


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Global Flavors Keynote

Just like its population, America's food has become a melting pot of influences from around the world. Not only are the "big three" cuisines of Italian, Mexican, and Chinese being explored at a deeper level (think burrata cheese and black garlic), but interest in other countries' food cultures is also rising. Discover the reasons why from nearly 300 operators, most of whom serve next-level global foods, and over 1,000 consumers. You'll learn about:

Awareness and Interest Around Regional Cuisines

Explore what consumers think about when it comes to foods and flavors from five macro regions of the world: Asia, Europe, the Middle East, Latin America/Caribbean, and Africa. Gauge how they feel about each region's foods when it comes to value, health, approachability, and more.

Consumers' Last Global Food Occasion

We asked consumers to detail the last time they had a global food: how recently they ate it, at home or away, and what mealpart it covered.

Demographic Insights into Consumption and Attitudes

Understand the differences in perceptions of global food not only between different age groups but also urban, suburban, and rural consumers. See where they learn about new foods and flavors, and which cuisines and global dishes generate the most interest.

Identify Emerging Ingredients and Dishes

Using the MenuTrends database, track which global foods and descriptors are most menued and fastest growing on menus at both ethnic and non-ethnic restaurants. Using the FLAVOR tool, explore consumer affinity for global foods and pinpoint which are poised for growth.

Segment-Specific Findings

Learn about the distinct differences between restaurants and on-site operators in their approaches to global foods, which global products they buy, how often they refresh their offerings, and what changes they plan to make in the coming year.



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Hit the road with Datassential's

Lodging & Recreation Keynote

For many consumers, the continental breakfast or funnel cake are synonymous with their experience at hotels or theme parks. Discover what else consumers want and expect in Datassential's *Lodging & Recreation Keynote Report*. Over 3,000 consumers share their attitudes on food and beverage programs at 21 lodging and recreation venues in this expansive report. Also, you'll learn about:

A Wide Range of Venues

Within lodging, the report explores high-end, boutique, mid-range, suites, and budget hotels and motels, online home/apartment rentals (e.g., Airbnb), bed & breakfasts, and even camp grounds and agritourism. Within recreation, learn about stadiums, movie theaters, zoos, amusement/theme parks, museums, golf/country clubs, cruise ships, community centers, bowling alleys, national parks, and ski resorts.

Last Visit Deep Dive

We asked consumers to detail their last experience at a lodging or recreation venue. What did consumers think of the food and beverage options available during their last visit to a lodging or recreation venue? What did they buy or not buy? What impressed them? What do they wish had been different? Discover the answers to these questions and more for the most popular venues.

Perceptions of Food & Beverage Programs

Identify frequency of visitation by venue and related food and beverage purchasing, learn which options consumers find most appealing, and discover what can help drive additional spending per occasion.

The Key Consumer for the Most Popular Venues

Dive deep into exactly who is visiting the most popular lodging and recreation venues. Discover the demography of the most frequent customers, where they shop, what other venues they visit, and how they think each venue and its foodservice program perform on key metrics.



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