

2018 TREND REPORT

THIS AUTOMATED LIFE



22nd ANNUAL
WEBBY
AWARDS

THIS AUTOMATED LIFE

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How advanced algorithms, machine learning, and bots redefine every aspect of modern life, including what it means to be human.

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INTRODUCTION

At The Webby Awards, we've been looking at the evolution of Internet-driven work since 1996 and have had a front row seat to several technological revolutions over the past two decades. As we evaluate work from across the Internet, both in our day-to-day usage and from our purview into 13K pieces of work from 70+ countries submitted to The Webbys each year, we are careful to consider the full impact of new technologies on our work, lives, and society at large.

The technological trend and impending revolution that caught our attention most this year is artificial intelligence, and the impact automation is having on our world. It's the driving force behind a great deal of change: from how we communicate with each other to how we will get to and from work to how our money is invested and how we seek medical advice. These underlying technologies have become pervasive in almost every experience we have - including in ways we've yet to realize.

That's why for this year's Webby Awards annual trend report, we're exploring This Automated Life: a look at how advanced algorithms, machine learning, and bots redefine every aspect of modern life, including what it means to be human.

To truly get a sense of how these technologies are changing our lives, we also needed to explore consumer understanding of AI: Do consumers trust it? Are they afraid? Are they excited? And what do their reactions mean for creators charged with experimenting with this technology?

This report looks at how artificial intelligence and automation have begun to change nearly every aspect of modern life and how consumers are reacting to

those subtle and not-so-subtle changes. We present research that shows that even the most sophisticated automated systems and artificial intelligence ventures in the market have not inspired trust in everyday consumers, despite adoption of the technology. It also indicates that regardless of hesitation or lack of trust, consumers expect automation to have a positive impact in the next 10 years.

Whether you are a Fortune 500 brand, a digital media publisher, an ad agency, a tech startup, or someone tinkering on the next great thing in your garage, acknowledging this is critical: There are big customer expectations to meet in the realm of automation, and embracing some of these new technologies and creating things that help build trust will prepare the marketplace for the continued evolution of technology

David-Michel Davies,
The Webby Awards, Executive Director



Chapter One

AUTOMATION EVERYWHERE

AUTOMATION EVERYWHERE

AUTOMATION EVERYWHERE

The momentum is unmistakable: Artificial intelligence – with its advanced algorithms, machine learning, and bots – has become as pervasive as hashtags and Facebook likes. Almost imperceptibly, AI is redefining every aspect of modern life, including what it means to be human in the 21st century.

AI isn't a singular technology, but an umbrella term that includes machine learning, voice recognition, predictive analytics, among others, to solve a problem. That problem could be reducing production costs on an assembly line, or boosting revenue per customer. It can also be as basic as getting from point A to point B.

DEFINING ARTIFICIAL INTELLIGENCE

Artificial intelligence (AI) is typically used to describe technology that includes some mash-up of speech recognition, machine learning, deep learning, neural networks, and predictive analytics.

But there's more granularity to how AI shows up in products and services, according to writer, researcher, and Webby Judge, **Rick Webb**. Stepping away from its technological underpinnings, he breaks down AI into three different strata:

- **Weak AI** shows up in basic apps like Siri or Waze that take text and audio input to deliver answers.
- **Human-level AI** possesses roughly the same intelligence as the average human.
- **Superintelligence, or SAI**, far outstrips human intelligence in speed and capacity.

Most policy attention and media coverage addresses weak AI, according to Webb. And he says that SAI is a lot further along than most people recognize: "We as a society should take everyone's opinions into consideration when it comes to deciding our policies about AI," Webb said. "It's happening fast without people really talking about it."

Put simply, AI helps individuals do more and makes businesses more efficient. And while its evolution is far from complete, even in its early iterations AI has begun to transform the ways we live, work, and relate to one another. By automating tasks that range from navigation to customer service and manufacturing, AI can be viewed as equal parts evolution and revolution.

To begin quantifying AI's momentum and impact on the culture at large, The Webby Awards partnered with YouGov OmniBus to survey more than 3,400 adults in the United States, aged 18–65+ about AI and Automation. We asked about usage patterns, trust levels, and more. The upshot: Respondents love AI's convenience and utility, but there's still some uncertainty about turning over control to an algorithm. Regardless of concern though, there is no expectation for AI and Automation to slow down, and what consumers predict for the next decade fundamentally changes how we will conduct business in a variety of important sectors.

POTENTIAL PITFALLS

AI is not without its drawbacks: privacy concerns, job displacement, software that reflects cultural biases, to name a few. We talked with AI experts for additional context and deeper understanding of AI's deployment and uptake, including **Jana Eggers**, CEO at Nara Logics, an AI platform that helps companies connect their data and customers. "AI is really just elegant math that will never become anything remotely sentient," she said. "The machines aren't coming for us, in fact they're more likely to self-destruct when their math determines that life is futile."

We also looked at contemporary AI implementations that hint at what's to come: from more common uses of AI like chatbots to more futuristic implementations, like advanced facial recognition technology.

AUTOMATION EVERYWHERE



Jana Eggers
CEO at Nara Logics

A WORLD OF OPPORTUNITY

AI's upsides vastly outweigh its drawbacks; the potential of AI to transform entire vertical markets and big chunks of the economy is self-evident. Its impact on individual businesses and how we work, live, and relate to each other is more of an open question. But consumers and businesses are ready to embrace this agent of automation.

AI can help companies deepen customer relationships, according to Jana Eggers, CEO of Nara Logics. But that closeness won't come from AI dashboard insights. "What I hope happens is that we spend more time with customers," Eggers said. "There are even bigger time and money savings [to come] by understanding customers more. AI will be a tool for this, but won't bring the primary advantage — that's done by spending time with customers."

THE AI EFFECT

RELATIONSHIPS

Social media platforms have become our go-to resource for connecting with new communities and our oldest friends. The individual experiences consumers have on these platforms are derived from an advanced algorithm that prioritizes particular status updates, photos, events, and news in a content feed. Beyond creating a manageable newsfeed, that prioritization is creating the opportunity for deep and meaningful relationships to happen, perhaps between people that otherwise would have been nothing more than acquaintances.

MEDICINE

Healthcare professionals may not need graduate degrees, state licensing, or even ongoing training and education in the not-too-distant future. Instead AI-based radiology reading systems and chatbots may handle everything from x-ray analysis to helping navigate chronic depression.

AI developers have already rolled out chatbots that combine psychology with artificial intelligence. X2AI already has bots to handle mental health inquiries in English and Dutch; the company's Arabic version has been distributed in Syrian refugee camps, where demand outstrips the supply of qualified human mental-health professionals.

TRANSPORTATION

We are on the verge of an autonomous automobile revolution but it is not limited to how we get to-and-from work. The American Trucking Association estimates there are 3.5 million US-based truck drivers who have a 79-percent chance of job loss due to automation. There are a variety of ways companies are exploring the future of this industry. Starsky Robotics is working on an autonomous fleet that is managed remotely by trained truck drivers with an eye on job safety and retention.



Chapter Two

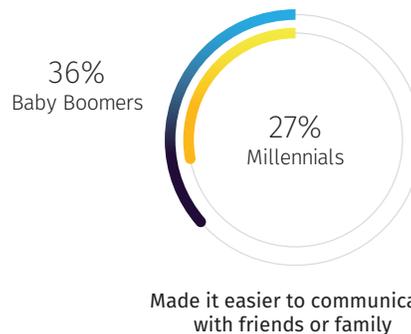
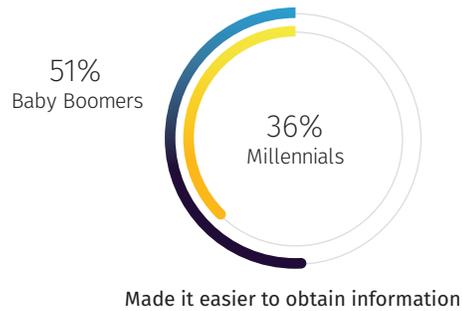
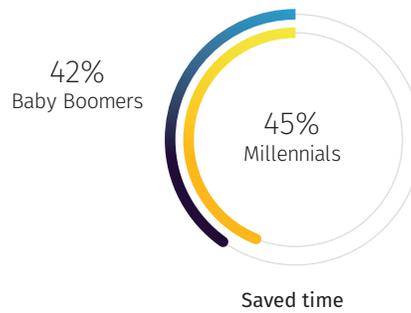
AUTOMATED FOR THE PEOPLE

AUTOMATED FOR THE PEOPLE

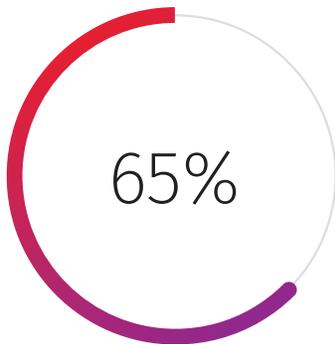
Consumers may not be talking much about AI, but it's definitely on their radar. A recent survey of 2,000 adults aged 18+ commissioned by The Webby Awards in partnership with YouGov reveals higher than average user awareness around the benefits and potential risks associated with AI.

What the survey results show is AI having a clear, measurable, and positive impact on users' lives through time savings and more choices. The research indicates that despite fear and hesitation from consumers, the opportunity that AI affords has led them to have very high expectations for what this technology will be capable of powering.

Q: How has automation affected your daily life?



Q: How significant an impact, if at all, has AI had on your life?



Made it easier to obtain information

Nearly two-thirds (65%) reported AI having a “significant” impact on their daily lives. But when asked to identify types of AI they’ve used in the past 12 months, the top responses were examples of basic AI, including GPS navigation (51%), movie and TV recommendations (39%), and online shopping recommendations (33%).

Trust issues aside, users pointed out the benefits they derive from AI and automation, including time savings and easier-to-find information. They remain concerned about the proliferation of AI and automation, including the impact on the economy and erosion of personal privacy.

AUTOMATED FOR THE PEOPLE

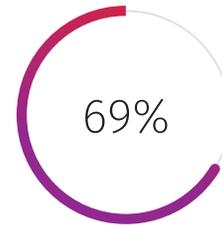
Q: If you had to choose between a human or an automated system to perform each of the following, which would you trust more?

Task	Human	AI
Make a medical diagnosis	86%	14%
Resolve a customer service issue	83%	17%
Manage a retirement portfolio	72%	28%
Recommend a song, video, or show to watch	64%	36%
Set someone up on a blind date	76%	24%
Give directions to get from point A to point B	34%	66%

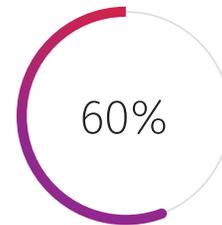
Trust remains an issue, as human decision-making outscored AI and automation in nearly every category including diagnosing medical conditions, resolving customer service issues, or managing legal transactions.

The one place where AI/automation outscored humans? Some 66% would rely on automation for driving directions. This demonstrates that AI must prove its soundness and reliability to make additional headway into daily human activities, just like Waze and Google Maps have done.

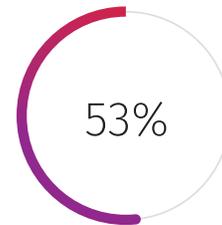
Q: Which decisions are important to you to make personally, without being automated?



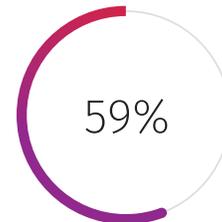
Doctor/Healthcare



Saving money



What music I listen to

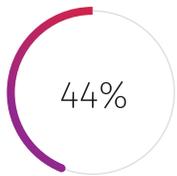


Shopping for clothes

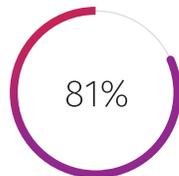
For the immediate future, consumers still foresee maintaining decision-making authority over healthcare decisions, saving money, and clothes shopping.

AUTOMATED FOR THE PEOPLE

Q: How likely is it that an automated device will perform these tasks in the next 10 years?



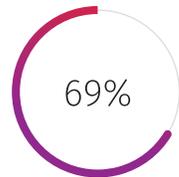
Perform a complicated surgery



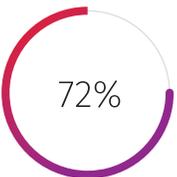
Drive a car from point A to point B



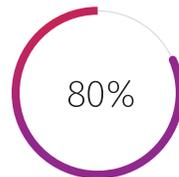
Diagnose a serious medical condition



Buy and sell stocks



Sell a product to a customer in a store



Deliver a product to your doorstep

METHODOLOGY

This survey was conducted online within the United States by YouGov on behalf of The Webby awards from August 15-17, 2017, among 2,000 adults ages 18 and older. This survey has been conducted using an online interview administered to members of the YouGov PLC panel of 1.2 million individuals who have agreed to take part in surveys. Emails are sent to panellists selected at random from the base sample. The e-mail invites them to take part in a survey and provides a generic survey link. Once a panel member clicks on the link they are sent to the survey that they are most required for, according to the sample definition and quotas. (The sample definition could be “US adult population” or a subset such as “US adult females”). Invitations to surveys don’t expire and respondents can be sent to any available survey. The responding sample is weighted to the profile of the sample definition to provide a representative reporting sample. The profile is normally derived from census data or, if not available from the census, from industry accepted data.

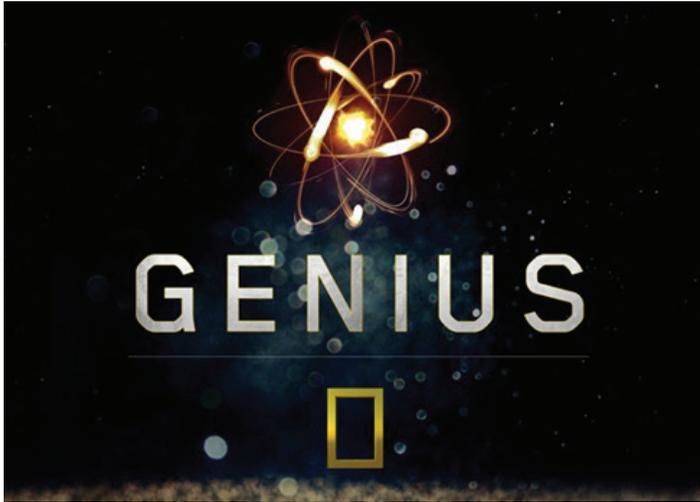
Respondents agree that AI is shepherding in a new era of automation. But beyond navigation or changing the thermostat, AI’s going to have to prove itself in life-and-death situations like diagnosing a medical condition, controlling an autonomous car, or managing retirement accounts.



Chapter Three

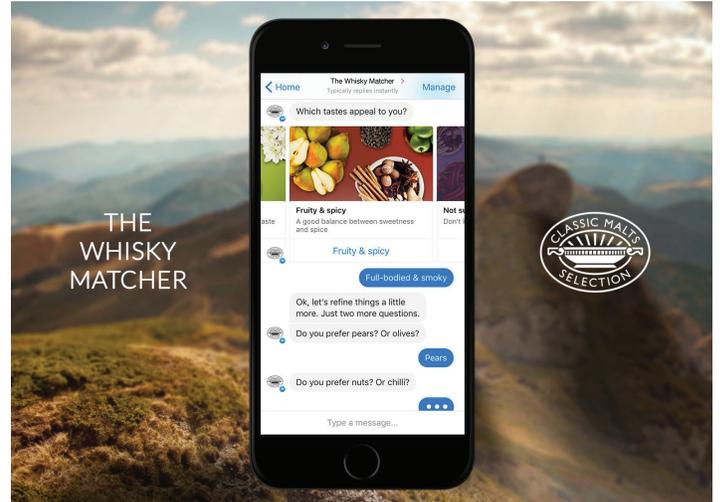
AUTOMATION IN THE WORLD

AUTOMATION IN THE WORLD - CHATBOTS



NATIONAL GEOGRAPHIC'S GENIUS BOT

Deciding how a chatbot will express itself and interact with users isn't easy, especially if your chatbot is Albert Einstein. But National Geographic did just that with its recreation of the iconic scientist in its Genius bot. The bot launched in tandem with Nat Geo's show Genius, which profiles the life of Albert Einstein. Through its witty responses to questions, Genius gave users a look into Einstein's love life, professional challenges, family drama, and more—while also driving awareness about the show. "We launched an Einstein Messenger bot on Facebook to humanize this historic figure and engage fans in a very conversational, personal way," says **Jill Cress**, Chief Marketing Officer of National Geographic. "Our fans came back week after week to interact with the bot, providing deeper engagement that helped them feel more connected to the show and, ultimately, tune in to see what happens next in Einstein's life." Fans and followers loved it: The Genius bot had over 200,000 conversations, saw 50% user re-engagement week over week, and received two times more engagement than the Facebook bot average.



WHISKEY MATCHER

For the uninitiated, the world of Single Malt Whisky can be daunting. How do you pick the right bottle? To solve this problem, Diageo partnered with MullenLowe Profero to create the Whisky Matcher: a chatbot guide for their Single Malts website. The bot prompted consumers with five questions and then guided them to the right whisky based on their taste and price preferences. It also gave background information on the whisky's origin, how to drink it, and where to buy it online. In a three-week pilot, Whisky Matcher helped over 8,000 people find a whisky, and 17% of them continued to an online retailer to purchase a bottle—"a great example of a technology enabling our products to be more accessible for consumers in a highly relevant and intuitive way," says **Benjamin Lickfett**, Head of Technology and Innovation at Diageo. The team also learned the value of prototyping over wire-framing, testing with real users, and building in a roadmap for continued investment in the chatbot once it's live. Overall, the Whisky Matcher helped lower the barrier to entry for consumers looking to make a purchase. Says Lickfett, "It's like having your own personal whisky merchant."

AUTOMATION IN THE WORLD - FACIAL RECOGNITION



KFC PAY WITH A SMILE

This year Ant Financial, a subsidiary of Chinese e-commerce giant Alibaba, launched “Smile to Pay” at a KFC concept restaurant, KPRO in Hangzhou, China. This groundbreaking system uses facial recognition technology to scan customers’ faces and allow them to pay for their meals using just their face and their phone number for verification. Customers walk up to a kiosk at the restaurant, and use the touchscreen interface to select their meal. Then a camera scans their face and identifies them in 1-2 seconds, connecting with their payment information to make a purchase. The aim, according to a video about the project released by Alibaba, is to allow customers to order and pay for food without taking out their wallet—or even their phone—in an effort to reduce the time it takes to place an order. It’s fast food even faster: Less time between ordering and eating means, hopefully, more happy customers.

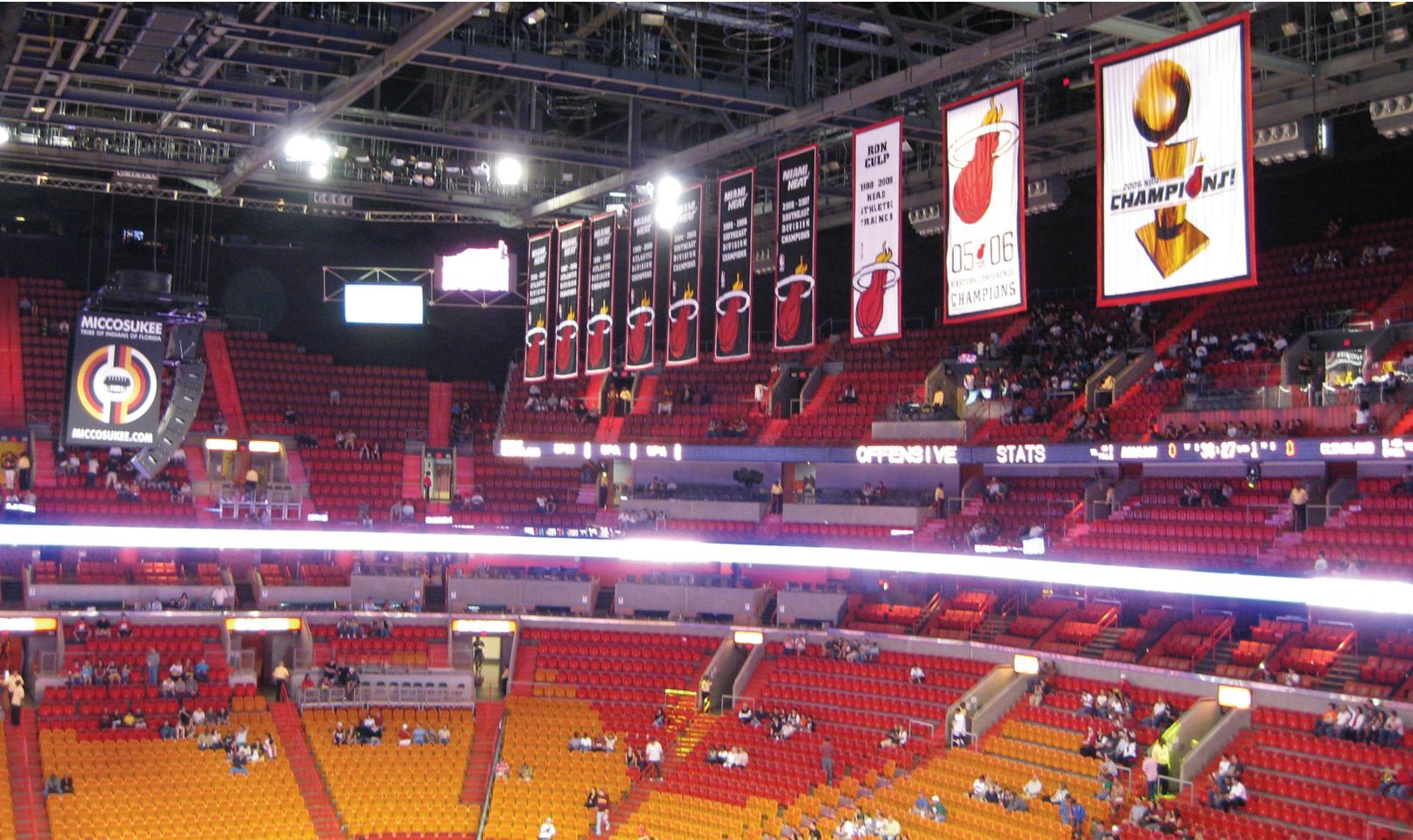


MARMITE TASTE FACE

There’s a fine line between love and hate when it comes to people’s feelings on Marmite. And it turns out that’s for good, scientific reason: Whether or not you like the taste of Marmite—a byproduct from beer-brewing—depends on your genetic makeup. To find a way to encourage more people to try Marmite, particularly younger people who may have never tasted it before, the team at AnalogFolk developed TasteFace: an app that uses facial recognition technology to determine if people have the “Marmite gene.” With TasteFace, users take a photo of themselves while tasting Marmite, and the app uses Microsoft Emotion API to determine if they “love” or “hate” it based on their expression.

“From the very beginning, we were looking for a solution to an interesting problem,” said **Sara Pouri**, lead creative on the project at AnalogFolk. “And because facial reactions give away whether you love or hate Marmite—you literally wince if you don’t like it—we thought facial recognition technology would be perfect for this.”

AUTOMATION IN THE WORLD - LIVE EVENTS



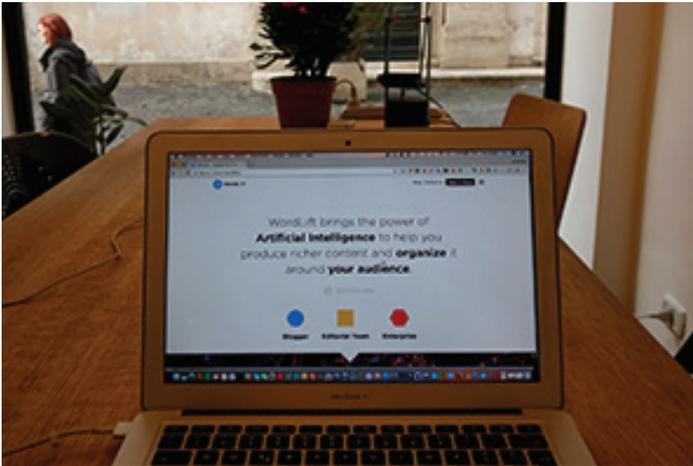
Artificial intelligence is increasingly used to serve up highly customized content to individuals or groups. Now, professional sports teams and owners of public sporting venues are going a step further and combining sentiment analysis and social media, video, and other personal data to adjust content on the team's smartphone app as sentiment analysis detects changes in fans' moods.

Two National Basketball Association franchises, Miami Heat and Sacramento Kings, are already using this AI-based combo as a way to keep their events family friendly. The team app is flexible enough that real-time updates can be done easily and transparently.

It's easy to imagine building on that functionality to include video content from security cameras, and infrared heat mapping to identify potential trouble spots in the arena. That in turn would enable the teams to adjust lighting, cut off alcohol sales, even play different music. Security personnel could also be given a standby alert.

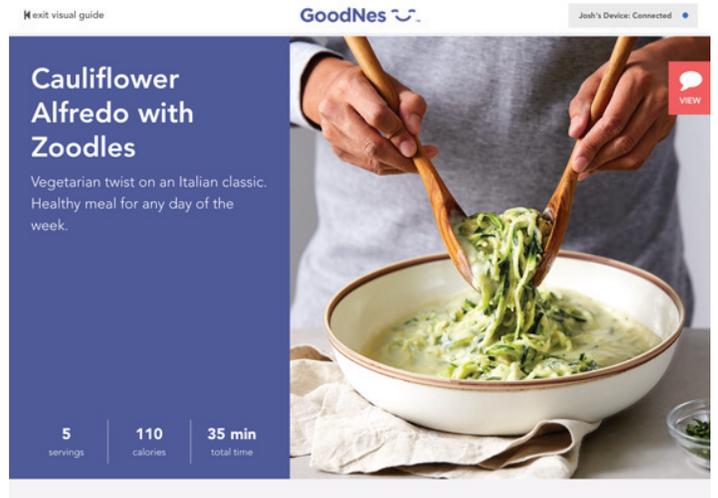
None of that additional functionality is part of the NBA's AI-based content management. But it's not a stretch to consider that more AI technology could become part of the safety protocol at public venues of all types.

AUTOMATION IN THE WORLD - VOICE



TRANSLATE TO SIRI, PLEASE

There are also tools popping up that allow brands to harness the power of AI in areas like driving traffic. Website WordLift is one great example, and it works with the dominant CMS for websites, WordPress, to optimize content online. WordLift uses AI to automatically add layers of metadata, generate internal links, incorporate related info, and much more to make posts easily intelligible for machines like chatbots, search crawlers, and personal digital assistants—such as Siri and Alexa. That way, those services can better analyze a brand’s content and more efficiently target consumers who are interested in it.



ALEXA, WHAT SHOULD I COOK?

Swiping through an app or leafing through a cookbook (how quaint) when your hands are covered in flour is far from ideal. Nestle tackled that problem and stepped up to help at-home chefs with its new Alexa Skill called GoodNes. It’s now available in the Alexa Store, and it allows users to access step-by-step voice instructions for recipes, ask questions about recipes, and even pair their Alexa with a web browser for a full audio-visual guide. It’s all compatible with Nestle’s existing GoodNes.com recipe website, and illustrates the brand’s commitment to leveraging existing platforms and new devices to create a more interactive, and genuinely helpful, experience for consumers.



Chapter Four

AUTOMATED FOR THE FUTURE

AUTOMATED FOR THE FUTURE

A LOOK AHEAD

As basic AI applications have permeated the workplace and home with more functionality, they've begun offering clues about how users work with and react to AI. There is certainly a trust and adoption curve that will challenge the way consumers use these technologies. There is also tremendous opportunity to create digital experiences that tap the power and capabilities of machine learning to advance industries and our connections with consumers at a rapid velocity.

While automation is a key benefit of AI implementations, we're more likely to see AI in environments where bots or software collaborate with actual humans instead of functioning autonomously, experts say. And already we're seeing AI software being used to handle the initial filtering of job applicants, for example, or take the first look at medical x-rays or MRI images to flag potential trouble spots. In both instances, humans do additional filtering and review; they also retain the final say.



In parallel, experts suggest that businesses will introduce sophisticated AI applications differently than how they've handled other technology rollouts. While so-called weak AI may find niche applications

and novelty uses, more sophisticated AI technology will require business decision-makers to take the long view and think strategically about what they really want from AI.

In contrast, sophisticated AI might grab live and archived data, parse multiple media types (text, audio, images, video), run concurrent software programs, and even embrace supercomputers, wireless networks, and the cloud to process its workloads. Sophisticated AI requires planning and a broader conversation about strategic objectives and how technology can deliver on them. Unlike other kinds of business technology, AI is multidisciplinary, requiring input and buy-in from diverse stakeholders across the organization. To achieve its fullest potential, an AI deployment will be strategic – not tactical – to truly transform the business.

CONCLUSION

AI still has to prove itself over the long haul. Experts urge vigilance around bias and AI, essentially making sure that our prejudices and blind spots aren't perpetuated in an artificially intelligent world. For example, AI's machine learning capabilities might conclude after looking at compensation histories to preserve the pay gap between men and women. Extrapolate that to race, class, or religion and it's easy to see how the culture's biases – both subtle and explicit – will get perpetuated in new software and algorithms that run our lives.

Another element that's also evident in the rollout and early development of AI and its impact on humans: an awareness that, especially in its earliest iterations, sophisticated AI may have unintended consequences. That's not a big deal if you're ordering a pizza through a digital assistant, but it's life-and-death if software in an autonomous car goes wonky. While it's unlikely AI itself will be subject to new laws and controls, some

AUTOMATED FOR THE FUTURE

regulation of AI capabilities may emerge. Fortunately, before it gets that far, there's a track record of self-regulation with TV, cell phones, and social media to reduce, if not eliminate, everything from radiation exposure, cancer, and social isolation.



Jana Eggers sees lots of possibilities for AI but would like to dispel some persistent myths: AI is not sentient, and its underlying math is not magic. “AI is fancy cool math, which is why I love it and work with it. Computers are great at calculations but don't do associations very well. What's powerful is they can do much more finely grained statistics,” Eggers said. “We're on the edge of true personalization, but we have to figure out what we want that personalization to be.”

AI's road may not be straight and smooth, but its momentum is hard to deny—as is its convenience. One thing is for sure: Automation will usher in a world of change, from how we spend our time to what skills we prioritize in the workforce, and beyond. And it's important to be prepared for all of it as you continue to invest in an AI-driven future.

ABOUT THE WEBBYS

THE WEBBY AWARDS IS THE LEADING INTERNATIONAL AWARD HONORING EXCELLENCE ON THE INTERNET.

Established in 1996 during the Web's infancy, The Webbys is presented by the International Academy of Digital Arts and Sciences (IADAS)—a 2000+ member judging body. The Academy is comprised of Executive Members—leading Web experts, business figures, luminaries, visionaries and creative celebrities—and Associate Members who are former Webby Winners, Nominees and other Internet professionals.

ADDITIONAL RESOURCES

At The Webby Awards, we keep a close eye on news and opinions emerging regarding artificial intelligence and automation. Follow #AutomatedReads on Twitter for a complete and regularly updated reading list.

We also have created an easy-to-follow Twitter List of the most important leaders in AI and Machine Learning for you to follow:

twitter.com/TheWebbyAwards/lists/a-i-insiders

Questions about the research? Email Angela Carola, Managing Director, International Academy of Digital Arts and Sciences and Industry Relations at angela@webbyawards.com

NEW AT THE WEBBY AWARDS

The Webby Awards is excited to announce new categories that celebrate the **Best Use of Machine Learning** in Websites, Mobile, and Advertising.

To judge these new categories, some of the leading authorities on AI and machine learning are now members of the International Academy of Digital Arts & Sciences (IADAS) judging panel this year, including Facebook's Director of AI Research **Yann LeCun**, Amazon CTO **Werner Vogels**, Google's Gradient Ventures Founder and Managing Partner **Anna Patterson**, CyPhy Works and iRobot Co-Founder **Helen Greiner**, Prisma-AI Founder **Alexey Moiseenkov**, and Roam Analytics Co-Chief Scientist and Co-Founder **Andrew Maas**.

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December 15, 2017

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