

Bytes and Bites

The Impact of AI on the Restaurant Industry and the Power of Open Platforms

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AI and ChatGPT are the latest buzz words making headlines and have created a surge of interest in these technologies. This has industry leaders not only contemplating the impact AI could have on their business but also weighing the unlimited number of ways to best apply this information.

While AI has been a platform for transformation for many years now, the ways in which it is applied is constantly being rewritten and experimented with. Given the rapid pace of the AI evolution, there are very few playbooks and that can be daunting for some or a competitive opportunity for others.

The restaurant industry, like many others, now sits at the cross-roads of determining how to apply intelligence in a way that delivers value to their customer and business. It has tolled IT departments who want to help their brand grow sales, improve loyalty, efficiencies, and even create a new category of guest experience all while maintaining a stable environment.

This has catalyzed a proliferation of AI startups in Silicon Valley, accompanied by a surge in venture capital funding. The following chart illustrates how the AI revolution is forecasted to grow through 2030:

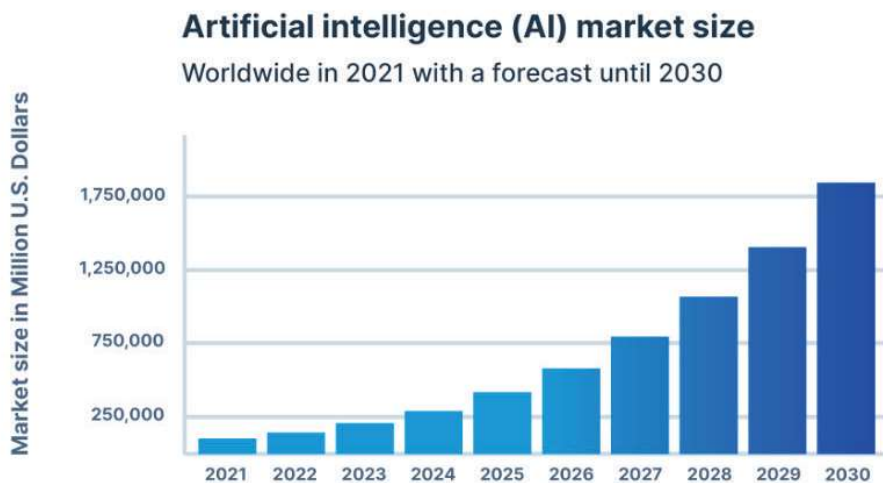


Figure 1: Artificial intelligence (AI) market size worldwide in 2021 with a forecast until 2030. © Statista 2023

AI, in and of itself, is a tool—a powerful one, no doubt—but it is the application of that intelligence, known as applied intelligence, that truly determines its effectiveness. Applied intelligence is the practice of discerning between AI applications that will drive digital differentiation vs those that may simply ride the hype wave.

As a leading cloud technology provider for renowned restaurant brands, Revel Systems embraces Spider-Man's timeless adage - "With great power comes great responsibility" when it comes to the adoption of AI across the business.

"With great power comes great responsibility"

Here are some of the ways we see applied intelligence taking shape in the restaurant industry:

Personalized Experiences through Menu Optimization: Imagine if you knew your guests were arriving, had suggested menu items ready based on past orders from a variety of restaurants, and had their preferred drink ready upon arrival. This is the potential of applied intelligence in restaurants - to transform the generic into the personalized customer-centric paradigm, and to shift platforms from being static providers to dynamic, responsive entities.

The introduction of AI signifies a game-changing role reversal from the traditional client-computer server model. In the traditional framework, the server possesses the resources, and the client accesses or requests these resources. However, the introduction of AI signifies a game-changing role reversal. The customer becomes more akin to the computer server, which is equipped with a wealth of data about any noted dietary preferences, favorite dishes, past orders, and even the time of day a customer typically eats. In turn, the restaurants can then draw upon this data to craft personalized dining experiences, suggest dishes, or even prepare for a customer's arrival. By identifying trends and customer preferences, restaurants can highlight the most popular and profitable menu items and provide a more personalized dining experience, even down to dietary preferences. AI's ability to analyze, interpret data, and provide personalized content can remove human bias and provide a closed loop of decision-making.

One such application of this could be giving your customers the ability to share personal information in exchange for more tailored experiences. For example, with customer permissions, health data provided by a smartwatch or similar could be used to recommend menu options that meet the customers dietary needs or goals.

Real Time Alerts and Notifications: Systems require significant manual intervention, which can be time-consuming and error prone. Busy restaurant staff do not have the time to consistently check reports or may overlook critical information amidst the noise of routine operations. Through applied intelligence, staff can be informed via alerts related to health & safety when food is compromised due to a recall, table turnover alerts when a table has been occupied for too long, peak demand alerts when restaurants are experiencing unusually high demand and require adjustments to food preparation and fulfillment times, and even for offline alerts for when a restaurant has been down for an extended period.

Fraud Detection: Traditional methods of fighting credit card fraud are becoming less effective. With applied intelligence, restaurants gain access to similar tools that have been used to fight fraud by large financial institutions. Applied intelligence has the ability to process large amounts of datasets to detect anomalies that would be easily overlooked by traditional means.

The Value of an Open Cloud Platform to Applied Intelligence

An open platform plays a pivotal role in fostering innovation with AI. In the past decade, the rapid growth in cloud system adoption was driven by a restaurant's desire to stay at the forefront of innovation. Today, that innovation curve has become



even steeper, with AI further permeating real-world applications. This widespread integration of AI is not only transforming existing operations but also catalyzing the emergence of new market players seeking to deliver cutting-edge solutions. This platform shift happened with the adoption of cloud systems in restaurants, the subsequent growth of mobile, and the proliferation of apps restaurants count on to run their business.

The number of applications being used by restaurants and their increasing dependence (amount of API calls) on transaction platforms has steadily grown. With half way left to go in 2023, Revel Systems expects this growth curve to continue to trend exponentially with more AI applications coming online in the coming months and years.

The below chart shows the extreme growth in API calls and usage from Revel System customers between 2014 to 2022.

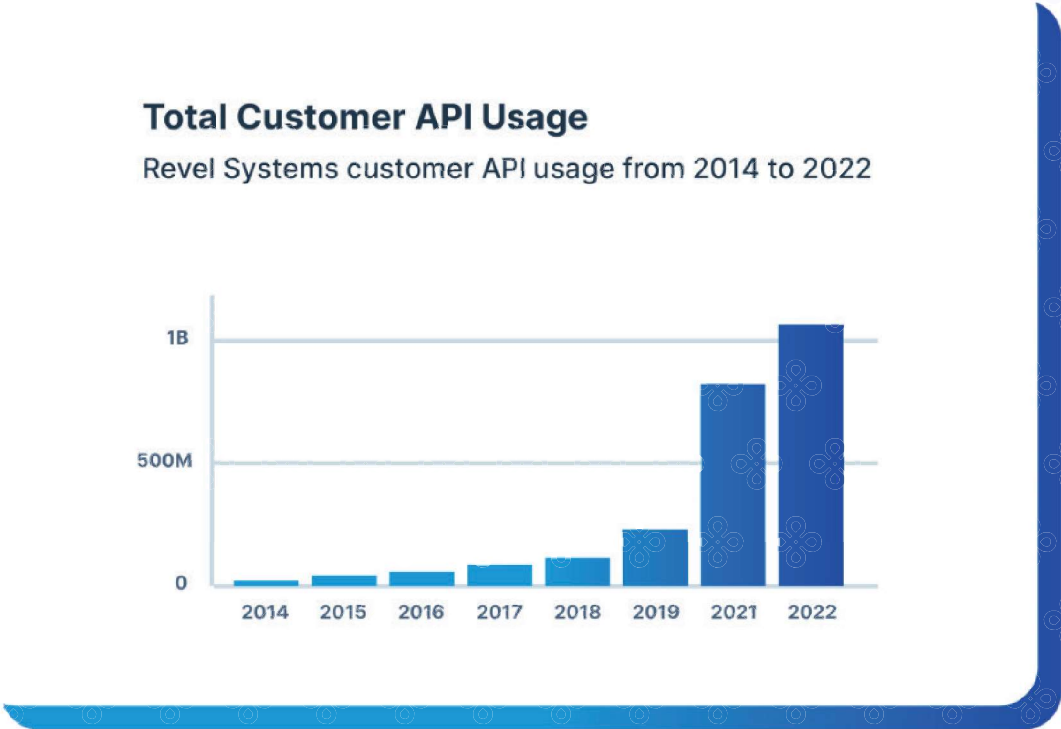


Figure 2: Growth of Revel Systems application usage and API calls

The examples described above are not science fiction; they represent the tangible possibilities of applying artificial intelligence to applications that can drive real value for your restaurant. And it doesn't stop here. The data being generated by these products is also compounding daily. The surge in new applications and information only continues to grow. What information you choose to use and how you apply this intelligence is what will set each of us apart in the future.



Revel Systems® provides the leading cloud POS platform and management solutions for enterprise restaurant chains. With an open platform, you can scale and pivot alongside your business needs now and in the future. Revel's unrivaled ease-of-use creates greater restaurant experiences for your employees and customers alike.