

# Is New Technology Worth It?

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**A**NYONE WITH A FEW YEARS IN PARKING KNOWS technology is advancing rapidly within our industry. Three of the latest trends seem to be in the areas of mobile apps, wayfinding tools, and video analytics. Many of these new technologies affect the operator and user in near equal parts. As an example, wayfinding applications improve the users' commute by making it easier to find a parking location near their destinations. This same application drives volume to the facility that makes its inventory available to the platform. This symbiotic relationship adds variables to the analysis equation that are difficult to quantify. The puzzle is how to quantify the investment in new tech with the benefits it provides.



Traditionally, the measure of success for new tech was to answer the questions, "Will this increase my revenues?" or "Will this save me money?" These seemingly simple questions have difficult answers; with so many moving parts in a parking operation, it's tough to pinpoint a change to profit and loss as the result of a specific technology.

New measures of success are even more difficult to quantify. The most popular question when assessing new tech is "Does this technology improve my customers' experience?" Measuring the customer experience can be even more challenging as customers are much more apt to provide negative feedback

than positive and a net promoter score doesn't mean much when parkers are one-time visitors.

Finally, the expansion of environmental concerns is another metric against which success is measured. New systems must offer some level of "greenness," either by eliminating paper or greenhouse gasses or offering some other triple-bottom-line benefit.

Is it possible to purchase new technology and measure success in all these ways? It's possible, but it takes forethought to measure key performance indicators—financial, customer satisfaction, and green-cred—before the new system is in place and then

measure them again periodically after the new tech is installed to truly understand whether the value proposition has been achieved.

## The Parking Technology Archipelago

Technology in parking tends to be accretive—you add new technologies to your parking operation, but you don't eliminate old technologies, often for fear or inconvenience of removing legacy options for customers. Subsequently, there are more and more systems implemented than are retired, leading to what's known as system creep.

New parking tech generally integrates with the other systems already out there. No technology can be an island—it needs to have a bridge to the other systems in a parking operation. Even the most robust, unified parking management solution still needs to connect to other systems. The collection of parking systems is an archipelago, with visible elements showing their face to operator and consumers while the connected parts exist just below the surface.

Parking operators don't want to be locked into a specific solution, particularly a proprietary one. Forward-thinking operators want the ability to evolve their systems to include new technologies; the parking operation needs technologies that can accommodate future needs. This comes from an open, expandable approach to system architecture. In today's parking world a closed system is a system without a future. Parking operators are ensuring inter-operability between systems by

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requesting it from vendors up front and writing it into the request for proposal.

For what it's worth, system integration used to be extraordinarily difficult, and it's good news that in many ways connectivity is getting easier. The latest generation of parking tech almost always includes an API (application programming interface) for exchanging data. This creates a near plug-and-play model for connecting systems. Furthermore, the IPMI, British Parking Association, and European Parking Association's Alliance for Parking Data Standards (APDS) are establishing the framework of sharing parking data both inside and outside the industry.

### The Rise of Video Analytics

If a picture is worth a thousand words, video must be worth 1 million! Perhaps the most impactful change to parking in the past decade is the incorporation of video analytics into the operation. Two common forms of video analytics are license plate recognition (LPR) and object presence/detection.

The cost of video hardware and graphics processing units has dropped dramatically, so what used to be an expensive purchase can work with just about any off-the-shelf video camera with sufficient image resolution. Of course, lighting, angles, and obstructions are still challenging factors when it comes to getting a clean image.

That leads to a second cost advantage: The artificial intelligence behind these systems has become much cheaper for vendors to implement. Whether it's recognizing the letters and digits of a license plate or observing objects moving in a parking lot, the cost of machine learning is a fraction of what it used to be.

As video analytics platforms continue to develop, so will the possible applications of the technology. Software is currently available to retrofit with existing camera infrastructure, and object detection software measures occupancy and alerts operators of possible enforcement events. Soon, video analytics will detect the make and model of a vehicle or the presence of a traffic or parking violation. The extensions of these technologies certainly

add value to the parking system but also add complexity and ambiguity to the purchasing decision.

### Conclusion

Technological developments are occurring at a fast and furious rate and frequently outpace the speed at which the market adopts them. They do not focus on making existing solutions better but create new solutions that address existing solved and unsolved problems. They do not attempt to fit nicely into departmental or operational silos but approach things from a new perspective. They do not simply improve the bottom line but affect the customer's experience and the environment. As tech continues to evolve, so too must our methods of evaluating their worth.

When analyzing new tech, parking operators should consider the following:

- Simplify your operation by eliminating outdated technology that your customers don't use.
- Software is the new hardware. Look for software systems that work with generic and off-the-shelf hardware rather than specialty equipment.
- Embrace the Alliance for Parking Data Standards (APDS). This new data standard will make it easier for your vendors to serve you better.
- Measure the non-financial value of your parking. Every data point you can gather will help you tune your parking operation and messaging. P



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