



Seven Secrets to Profiting from Predictive Analytics

Erik Udstuen, TwinThread

Chief Executive Officer and Founder

- **Stop Waiting for the *Intergalactic* Data Lake to be Built**
- **Work With a Platform that Already Knows How to Work With Your Industrial Data**
- **Build Your Team Around Your Process & Equipment Expertise**
- **Address Both Operations & Maintenance Business Cases**
- **Automate Everything to Scale Success Quickly**
- **Innovate With Predictive Applications, Not With Infrastructure**
- **Constrain Your Pilot for Fast Success or Fast Failure**





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One of the greatest methods to employ when striving to continually increase profitably is to continually improve efficiency. And, when it comes to driving efficiency, there's no better companion than a comprehensive and curated Predictive Operations Platform. Leveraging your data with the application of predictive analytics allows your domain experts and problem-solvers to go further, faster, and with greater accuracy. Whether its optimizing throughput, increasing uptime, improving quality, or any of the other many facets predictive analysis offers insight into – each result in greater profit.

However, this isn't news. Moreover, the above is slowly becoming cliché – something you've heard a million times over. It's no lie that a Predictive Operations Platform worth its salt will allow your domain experts to accomplish these things for your organization. But, that doesn't change the fact that it's a pitch you've heard countless times before. →



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So, with everyone in our space spouting the same narrative, how on earth can you rightly choose which solution is the one for you? How can you build confidence in a predictive solution provider, and feel good about choosing them above all other candidates? How can you know that the platform will successfully serve as the impetus to greater profit?

We'll explore all of these concerns and more in the following sections of this resource. Also, we hope this resource will offer guidance on positioning your organization for the successful outcome you're looking to achieve when making the choice to pursue and commit to a predictive analytics methodology.

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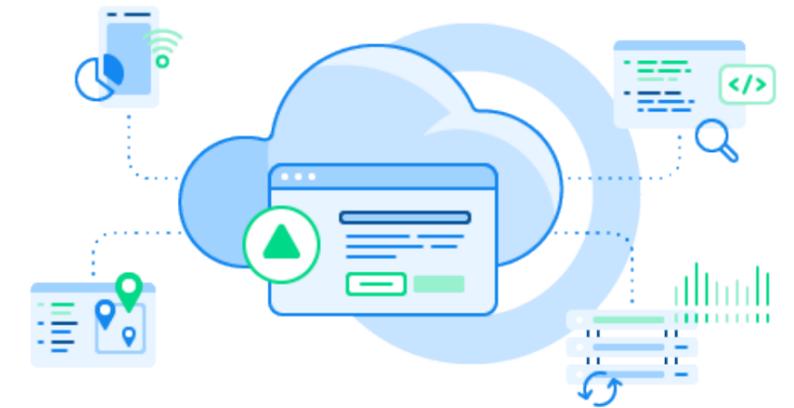
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The first aspect we'd like to discuss when it comes to leveraging predictive analytics in the name of profit is a platform's ability to easily connect and interface with a variety of data sources. There's no need to wait for the "intergalactic" data lake to be built. Draw on the diverse data you already have. Whether your organization deals in SCADA Systems, Historians, MES Systems, CMMS, IoT devices and sensors, or some other information apparatus – your predictive analysis center of choice should not only be compatible with the apparatus you make use of (because that's just the bare minimum, of course), it should integrate painlessly.

The solution you choose should connect up with your in-house system so well that you don't even pass a thought regarding its implementation. Don't even consider adapting your machine learning loadout to accommodate a solution. That's a one-way ticket to losing money – not accruing more. And, for those solutions that will interface with your systems, build confidence with your provider that they are certain their platform can be connected up easily and quickly. →





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You'll notice a going theme throughout this resource that time is of the essence when attempting to prove the value of a particular predictive operations center.

Profit is garnered through meaningful insights that can be operationalized by your domain experts.

Getting started needs to be fast so it doesn't serve as a barrier to moving the proving process along. So, any given platform's ability to connect (and fast) to whatever information apparatus you currently have in place is really a prerequisite to accomplishing profitability through the application of predictive analytics. Profit (when it comes to predictive operations) is garnered through meaningful insights that can be operationalized by your domain experts. The more condensed you can make the time between implementation and insight, conceptually, the greater your chance at increasing profit margins.





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No matter the industry, IoT has allowed organizations to take great leaps forward in the efficiency of their operations. There's no denying that your efforts are augmented, and more can be accomplished with technological additions informing the decisions you make. However, we've matured far enough into the digital age now to know, from experience, that tech for the sake of tech isn't going to allow you to go as far and fast as you want to. Any old solution, just to keep up with the Joneses, will more than likely not provide you with what you are looking for.

When it comes to a predictive operations solution, your platform of choice is critical in deciding whether it supports you in becoming more profitable, or actually becomes a barrier to greater success. The key in confirming whether a particular platform is the right fit for your environment is to look at the team behind it. A technological solution needs to be backed, of course, by technological people. →





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However, to be applied meaningfully, it also needs to be backed by professionals with history and experience in the setting their solution is being applied to.

Reason being, tech savvy professionals can create all the whizz-bang in the world, but it won't mean much to you if it can't be applied or interpreted how you need it to be.

That means, if your operations are predominantly manufacturing focused, the predictive analytics solution you opt for should be supported by a provider with considerable industry experience. Reason being, tech savvy professionals can create all the whizz-bang in the world, but it won't mean much to you if it can't be applied or interpreted how you need it to be. When your solution of choice is supported both by strong tech knowledge and industry experience, you're getting a platform backed by people who understand how your data works, and how you want to consume it.





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It gives your organization a competitive edge to have a solution provider with a strong grasp on how you deploy your historical sensors, event alerts, and the context within which they are applied and drawn upon (equipment, product, shift, work order, process order).

This advantage allows your domain experts to get the information they need immediately, understand it outright, and operationalize it now.

This advantage allows your domain experts to get the information they need immediately, understand it outright, and operationalize it now. A system that is compatible with your data and understands your people expedites the insight process, meaning the time from implementation to operationalization is reduced and your profit margins increase.





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No one knows your organization's assets, and the processes applied to them, like your resident domain experts. So, if that's the case, doesn't it follow and make good sense to keep them as a focal point in the process of curating data, gaining insight, and actioning it? It might sound rhetorical – and it should be – but unfortunately, many predictive analytics solution providers opt to target data scientists instead of in-house subject-matter experts. This is both a sign of the solution provider's inexperience in industrial environments and an improper interpretation of how best they can help you increase your profits.

The thing is, when you build your solution to favor data scientists, you're adding a whole other step in the process. Instead of presenting curated data in language that respects domain experts, you're forcing organizations to solely draw on data scientists who, at some point, will still need to pass findings off to the subject-matter experts. What's more, once that information gets to the domain experts, they will →





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have been outside the process long enough to disengage their involvement or sense of purpose in the effort – slowing the time to action even further. With a platform that allows domain experts and data scientists to collaborate naturally, you're keeping the key players fully engaged and expediting impactful actions. At the end of the day, your greatest resource is your people. No technological solution is going to replace domain experts' experience and operation-specific knowledge.

However, with the right tools, they can be more empowered in all their efforts. Everything can be accomplished faster and with greater efficiency and accuracy by pairing the operational know-how of your domain experts, with the analytical power of an insight-driving Predictive Operations Platform. When you draw on a solution provider that understands and respects that balance, there's a much higher probability that greater profitability will be realized. Free your experts to innovate.





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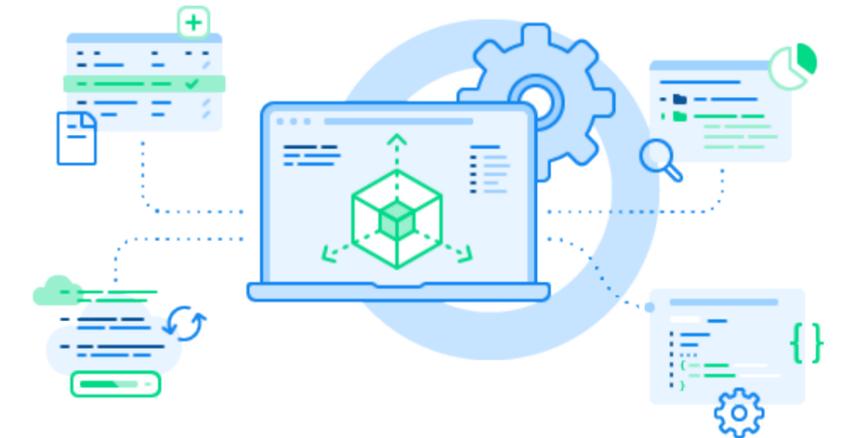
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An article from the [Harvard Business Review](#) has made it clear that executives understand the importance of AI being meaningfully implemented within their respective organizations - "...84% know they need to scale AI across their businesses to achieve their strategic growth objectives...". However, "...only 16% of them have actually moved beyond experimenting with AI". Gaining insight into how an asset is functioning or how a particular process is impacting efficiency can certainly allow your problem-solvers to make strategic adaptations that improve performance.

Actioning insights that improve the performance of a particular process or machine will, of course, save your organization money. However, the way you garner substantial cost savings is to implement a predictive operations solution that empowers you to scale learnings across your operational spectrum. To accomplish this, you need a platform that is not only capable of collating a large pool of data, and cutting →



Harvard Business Review, April 13, 2020: A Radical Solution to Scale AI Technology, by Athina Kanioura and Fernando Lucini



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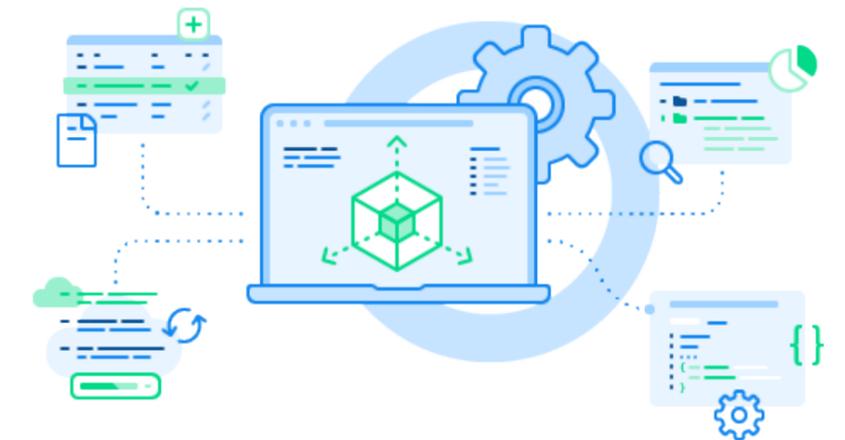
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through the informational overload to deliver the insight that's pertinent to overcoming the targeted challenge – you need a platform that enables comparing and contrasting of assets and processes at the enterprise level.

Without the ability to easily and quickly interpret what assets are exhibiting greater performance, as opposed to others, it would be too time consuming to identify top performers and evaluate what circumstances are causing them to function more optimally.

Your data can't be as powerful as it is capable of being if information is siloed and contained to the asset it came from. Without the ability to easily and quickly interpret what assets are exhibiting greater performance, as opposed to others, it would be too time consuming to identify top performers and evaluate what circumstances are causing them to function more optimally. Conversely, with a comprehensive Predictive Operations Platform at your disposal, these kinds of →





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cross-operational insights will be made plain to see for your domain experts – allowing them to operationalize efficiency efforts across the organization.

What's more, a comprehensive predictive platform allows your experts to scale knowledge over time. That is, apply what the data is telling them to positively influence maintenance cycles. This way, your organization is not only saving money through greater efficiency in the now (operations business case), you're also maximizing profits into the future by considerably reducing wear and tear, and failure events (maintenance business case). It is these efforts that implement wide sweeping standardization of optimization at scale that result in very noticeable improvement of profitability.



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As an organization looking to leverage a predictive analytics platform to bolster your efforts toward greater efficiency, you need to adopt a mindset of and appreciation for impatience. The less time your domain experts are waiting for a predictive solution to provide what they need, the more time they are implementing optimization (resulting in more profit). In the spirit of remaining impatient, it can be tempting to embark on a “do-it-yourself” project - where the solution is built in-house and is completely proprietary. This notion is understandable.



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However, we're talking about time to value here - and the value isn't in having a predictive solution for its own sake. The value is in the speed at which you're able to easily pull actionable insights from the solution. The best DIY is one where you skip the solution development phase and get right into owning and cultivating a better understanding of your data. What you need is a platform that can be connected to your Historians or data centers in minutes, deliver meaningful insights in hours, and empower your subject-matter experts to operationalize those key learnings in days. It's counterintuitive and counterproductive →



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for a predictive solution provider to preach on the efficiencies their platform will stimulate but, at the same time, be inefficient in their ability to implement it within your operation. Not only is it not fair to your organization, but it's disenfranchising to your domain experts' spirit of innovation. You can't cultivate and sustain a culture that drives continual improvement if the solutions you draw on detract from that mentality.

Your problem-solvers are racehorses bucking at the starting gate – your predictive solution of choice should facilitate the opening of those gates as soon as possible. A platform that requires weeks for implementation, and that sequesters your domain experts from insights for months may eventually offer up the operational results you are looking to achieve. However, a platform this slow will not allow you to achieve the level of profitability you could have accomplished with a solution provider that prioritizes expediency to value. To be profitable with predictive analytics, you need insight rendered quickly. If your platform doesn't offer meaningful insight, or it fails to offer it at high velocity, it's very difficult to increase profits.





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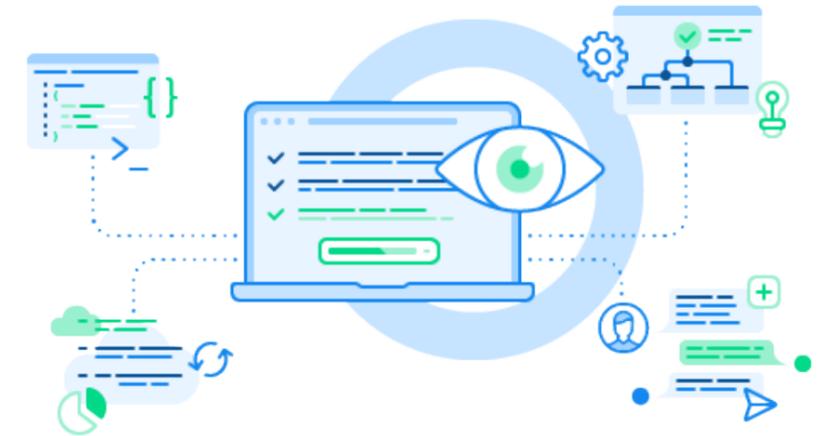
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You need a Predictive Operations Platform that is equipped to support the innovative drive of your domain experts. That means, it needs to be a solution backed by a provider that understands the environment your operations happen within. All too often in the predictive operations sector, solution providers see the opportunity and market demand, have the knowledge to build a flashy system, but do not have the industry familiarity to build something of worth to the end-user.

Unfortunately, some organizations can get distracted by their whizz-bang and forget to thoroughly vet what the system can actually accomplish for them. Much of the time, in these scenarios, these whizz-bang platforms are limited in their capabilities (because the provider doesn't know what your problem-solvers need) or, they are too slow in producing the results needed for the effort to be profitable. When you're investing in a predictive operations system (with the intention of making your organization more efficient), factor the →



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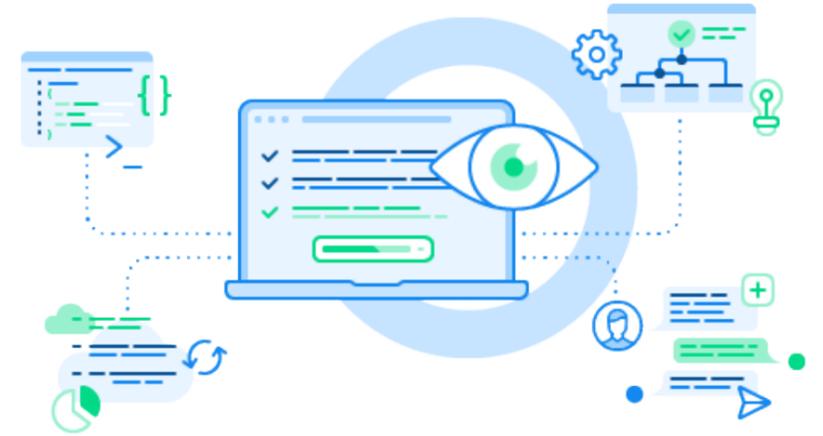
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provider in as well – as they are a large part of your investment. Whether you're looking to improve quality (or reduce variability), increase throughput, build a greater understanding of asset reliability and lifecycle, increase uptime, augment energy efficiency, or all of the above – you need a platform that will empower your domain experts to overcome the challenge they are targeting.

To get that in a platform, you need a provider that is both savvy in the technological aspects of implementing a system that works for the people that will be using it, and has the industry knowledge to be familiar with how the system will need to be used in context (to be a worthy tool). Choosing a system that allows your subject-matter experts to find the information they need fast, that is also backed by a provider who can point you in the right direction is the optimal way to ensure you profit from the application of predictive analytics within your organization.



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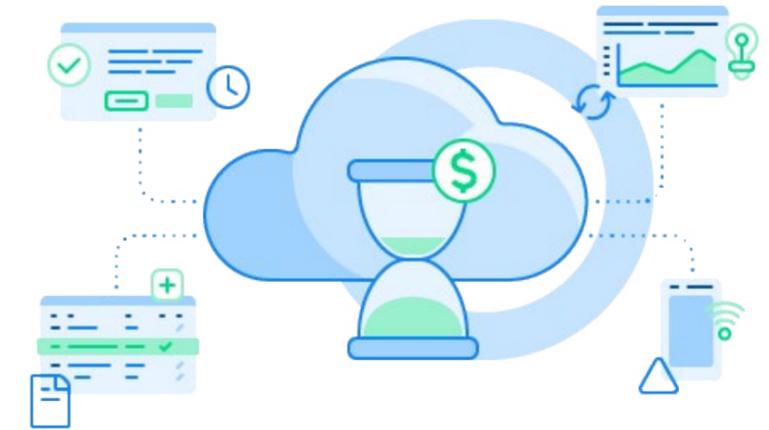
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With any predictive solution, results aren't guaranteed. Predictive analytics applies a scientific methodology that suggests it is best practice to make decisions based on the best information at hand. However, as much as we'd like it to be, it's not a crystal ball. So, if no solution provider can guarantee results, how are you supposed to figure out whether more profit can be squeezed from your operations?

The key isn't just in the usability of the platform (as important as it is). It's also in the platform's ability to be quickly implemented and applied within your unique environment. A slow proving process is not a scenario you want to subject your organization to. Imagine putting large amounts of time, effort and investment into a proof of concept for the implementation of predictive analytics, only to find that the insights derived from the platform are of little or no worth to your domain experts. From a business perspective, it could be disastrous – and, from a cultural perspective, it will most certainly be discouraging. The truth is, if presented with such a risky proposition, most businesses would have to make the decision to pass. →



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How could they be blamed? However, let's be clear, you're not proving technology in a production pilot - you're establishing time to value and the potential to scale. You should be empowered by your predictive operations provider to find out fast whether their solution will make the grade for your operations. In a brief period, you should be able to make an educated decision on whether it's time to get out or it's time to double down on the use of the solution. If it's not going to work, you won't waste your time expending any unnecessary effort - reducing residual cost.

If it's clear that there is value to be had through the use of the platform, because of the speed to value, you'll be able to expedite insight to action - increasing profitability. Your organization and its innovative members just want to improve - you shouldn't be made to wait to see whether a particular solution can help you accomplish that. Ensure you constrain your pilot for fast success or fast failure. Always begin with the end in mind - how will model results be operationalized and at what speed?



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Get started

At the end of the day, the keys to profiting from predictive analytics are to factor in the functionality of the platform, the industry experience of the provider, their respect for your domain experts, and how empowered your organization will be to quickly determine whether value will be gained from the solution's application. The greater your operational efficiency, the greater the potential for increased profit. However, to gain the insight that will embolden your subject-matter experts to adapt and improve processes, you need a Predictive Operations Platform partner that checks all of the boxes above.

TwinThread backs its solution with a team that strikes a balance between dedicated future-proofers and industry experienced experts. What's more, we understand our role in supporting your in-house innovators. Our platform never ignores them – it enables them to reach further, and faster. Getting started with us does not take a substantial commitment of time and, because we are able to connect to your data sources quickly, proof of value is literally days away. If you'd like to learn more about how we encourage greater optimization within your operations, [get started here](#).

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Diverse Data Sources

Built to Work with Your Data

Domain Experts as
First-Class Citizens

Scalable Automation of
Process Predictions

Expedite Time to Value

Implement a Comprehensive Platform

Find Out Fast