THE ESSENTIAL GUIDE TO INTELLIGENT AUTOMATION

Put It Forward®

Solving Digital Enablements Productivity Problem

Developer scarcity deepens in 2021: 6M developer shortage by 2025 (34% CAGR)

By 2024, 45% of line of business workers will have some development or automation duty, making them the fastest-growing employee type

DR. ARNAL DAYARATNA, IDC RESEARCH DIRECTOR

QUANTIFYING THE FULL-TIME DEVELOPER SHORTAGE
IDC FUTURESCAPE: WORLDWIDE FUTURE OF DIGITAL INNOVATION

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**Looking for the roadmap to intelligent automation?
We'll walk you through step by step**

SETTING UP FOR SUCCESS

THE IMPORTANCE OF INTELLIGENT AUTOMATION

What's the big deal about intelligent automation?

The big deal is that you **won't be able to scale without it**. That's not an overstatement. If you don't understand how to respond dynamically to insights as they surface in the organization and be able to act on them you won't be able to scale in the digital era.

In a typical organization insights, automation and systems are viewed as separate entities - living in operational silos from one another. Silos are engineered blockages and single points of failure lying between you and growth.

WHAT'S THE BIG DEAL ABOUT INTELLIGENT AUTOMATION?

If your organization is struggling with lag time you're not alone - **69% of businesses say they aren't data driven.**

The more data you acquire or generate, the more things are automated, the more systems are introduced the more these challenges amplify.

What if you could **automate some of these processes based on actionable insights to bring scale and transparency** to your organization?

It would be a very big deal.

INTELLIGENT AUTOMATION
FOUNDATIONS

UNDERSTANDING
THE FUNDAMENTALS

Here's what a good intelligent automation strategy looks like.

Data exploration

Data connectivity

Data staging

Data wrangling

Automation planning

Business observability

Response automation

Data Exploration

It looks out of wild and impossible to understand

Before you start working with a new data set, it's a good idea to step directly into the raw data. This will help connect your mental picture with what's actually in the environment.

Start by trying to answer a question that you might have with the data that's available.

Data exploration used to require the skills of a coding developer which blocks most people from being able to gain an understanding of what's going on. Now with no code tools you can look right into the data.

Here are some data exploration techniques that may help unlock some big insights:

- Check column names and field descriptions to see if any anomalies stand out or are missing or incomplete
- Do a quick health check on the data to see if the variables are within expected ranges
- Check for unusual data points that would skew your results - visual and statistical methods work well here
- Look closely at the outliers - are these a concern or can they be ignored?
- Examine patterns and relationships for statistical significance.

Data Connectivity

Just connect to the sources of truth

Your analysis is only going to be as good as the data you have access to. That's why connectivity to the data that you can change quickly is essential for eliminating errors and improving decision-making.

To enable rapid and changeable connectivity like this it's extremely important to have a toolset that allows you to adjust as fast as needed.

All of this can be done manually with coding-based approaches at considerable cost to your thinking time. Automated data connectivity tools that take the manual portion of work out which can be done with a few quick clicks.

Depending on the type of data needed, you can accomplish give things in the connectivity stage:

- Replace expensive code-based integration technology
- Remove legacy integrations that aren't relevant to the problem you're trying to solve for
- Improve process quality by quickly changing the data sources used in decision-making processes
- Fix long embedded errors that come with brittle integration solutions which have been expensive to change
- Increase the amount of data and information being used to create actionable insights.

Data Staging and Preparation

More (all of them) data sources are better than one

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Data usually involves three steps:

1. Access and acquire: If you're using modern no-code data tools rather than trying to manually export data or working with legacy code solutions then the results are going to come faster.
2. Blending and profiling: If you're a spreadsheet user this is where you use vlookup or if you're a dba creating joins and virtualized views. If you're using self-service tools this process is just drag and drop.
3. Validation: It's important to review the results before introducing them into the downstream processes and systems. Sometimes more prep is needed to get the data to the right level.

Data Wrangling

Let's Wrangle!

The term "data wrangling" is often loosely used to describe accessing, acquiring and staging data - aka data preparation - that occurs in the process of analysis and building predictive models.

Even if you've prepped your data properly and everything is clean once you get into analysis you'll likely have to start manipulating the data so that your predictive models can consume it.

Data wrangling is often performed with programs and languages like Python, R and SQL. To make this process accessible for your whole organization you'll need to use automated predictive analytics software.

How to Wrangle:

- Data Tuning: if your model doesn't perform the way you thought it would it's time to go back to the data and look at the sources.
- Transformations: Structuring your data with the outcome in mind is the way to move things forward. You'll need to spend some time thinking about what the final form data is that's needed for the model to perform well.
- Cleanse: Apply rules to correct data errors and improve quality.
- Enrichment: Add more sources of data to widen available attributes, often these come from third parties or other environments.
- Repeatable Processes: Store the processes you created so they can be reproduced in the future

Automation Planning

Plan to Automate - Automate to Plan

Once you've collected the data and started turning it into repeatable processes the next step is to start mining data about the process itself.

Process mining collects data about a process and performs statistical analysis that compares the existing process with how it should operate.

The goal is to improve the process through technology enablement aimed at reducing mistakes and inefficiencies that slow down processes or make them unnecessarily expensive.

Working with different automation sequences to understand where value can be unlocked has several different approaches:

- Confirm that the process you're modelling and working with is actually what is implemented. Often what is documented is not how things are actually working as things change over time.
- Map out the manual steps around an automation to understand where additional steps are needed or bottlenecks exist. Tip - this is where to expand the automation into.
- Simulate the new processes where possible. Old school simulation is paper based modelling and business process tools. The new school tools allow you to test and simulate with live data in parallel to production.

Business Observability

Peekaboo - I see you! - the intelligence layer

Observation of what is happening within your automated processes as the insights are applied.

Using advanced analytics to predict outcomes and results before they emerge or are undetectable to the observer allow you to turn insights into performance metrics.

Observability used to be people with clipboards and stopwatches capturing what is happening on the ground. Today observability can be done through advanced data analytics. Sometimes people will use deep tools which require strong technical skills to use and others will use more automation layered on top of these tools to make it useable by most professionals.

How to Establish Business Observability?

Event driven monitoring is used to track what's happening in a process which is the baseline for kpi's to manage from.

Look for business problems that require planning to resolve

Predict problems or opportunities with individual transactions that will cause failure of a process to execute or introduce anomalies into the process requiring error checking.

Analyze what the root cause of anomalies are and take actions to correct or accommodate them.

Response Automation

The Insight Reflex - the orchestration layer

Response automation is a layer that lives on top of a process or end-to-end processes to immediately respond to events triggered from observability.

Rules-based processes allow you to adjust when and where insights trigger events in the enterprise.

The goal with response automation is to orchestrate how the organization is going to respond to a particular event with its own systems and processes such as a fraud detection event or a new type of customer purchase.

All of this can be manually coded by a developer using legacy tools or can be solved for using no-code solutions that the business professional can access

Knowing what type of events you're managing is what Makes Orchestration Automation Work:

- Depending on the depth of the process different approaches can be taken to automate the insights. They all have one thing in common - that they auto-assign or trigger an outcome to happen
- Closed-loop automation can be used to trigger the next step in a process when a particular event or value is being monitored.
- Internal application process management is used to create a process which is the result of something happening in the system interior.
- Cross-system processes are the most common which touch closed-loop, internal application, and multiple systems.
- Powerful easy to use tools that connect the data to insights and to process is what unlocks all of this value at scale.

Faster, Smarter and Scalable Insights

The case for Intelligent Automation

Ideas, meet 21st century insights.

What happens in a world where silos don't exist, spreadsheets aren't used and data analysis is possible without deep coding skills?

If you were able to access any data, system and process to identify opportunity what would that unlock for you and your organization?

The case for intelligent automation

In our experience, intelligent automation looks like this:

Quick wins
Switching to no-code data access and integration solution set always produces a measurable return in a matter of days or weeks
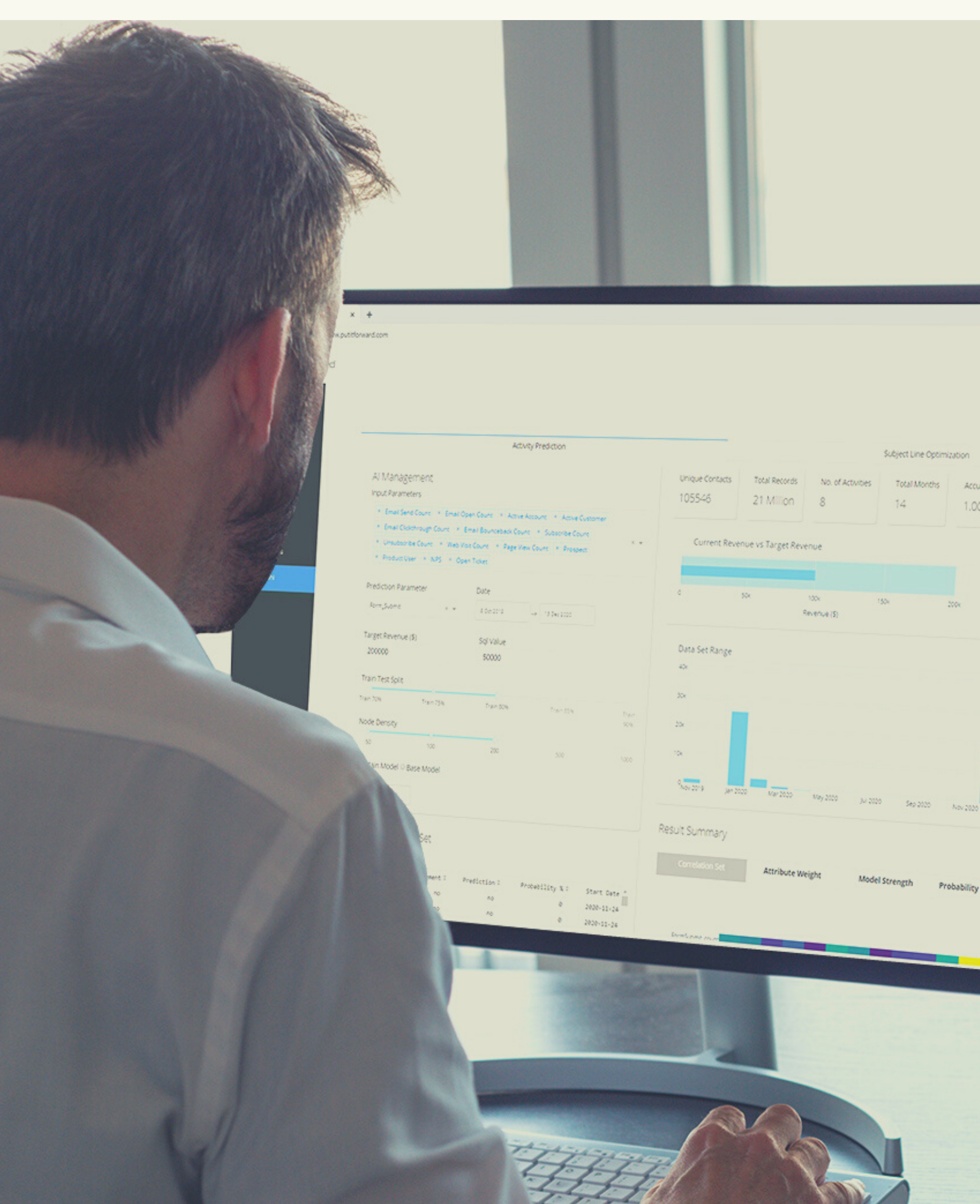
Mine for Insights - Time for Action
Automation and seeing into the underlying data changes the way the workday is focused - away from menial tasks to creative high-value ones. You'll never have to deal with the same issues over and over again.

Continuous Improvement
When you eliminate procedural gatekeepers, you change the way an entire organization works. Team members at all levels begin coming up with new ways to expand their own capabilities.

It's such a big change that it's called Intelligent Automation.

WHY USE PUT IT FORWARD FOR INTELLIGENT AUTOMATION?

Intelligent Automation
And your organizational ROI? Glad you asked.

1. Top line growth
2. Bottom line savings
3. Speed to market
4. Dramatic efficiency gains
5. Fast upskilling of workforces

Why Use Put It Forward for Intelligent Automation

Start anywhere. Solve everything.

Put It Forward is the only quick and easy-to-use, end-to-end intelligent automation platform that you - and everyone you work with - to solve problems faster than you ever thought possible.

You can use the platform to discover, connect, integrate, stage, analyze, orchestrate and use predictive analytics all in one place.

What's in it for you:
- Fast data preparation
- Scalable integration (hundreds of connectors)
- Repeatable process flows
- Code-free modelling through an intuitive interface
- Performance, ROI, security and governance all built in as well

(translation - it's like bringing milk and cookies to your IT department)

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ROI
METRICS

Why Professionals Love Put It Forward

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Put It Forward provides a comprehensive end-to-end tool platform to address everything related to intelligent automation.

Increase Conversion Rates by 70-90%
PTC

2700% decrease in operational cost for data governance
Charles Schwab

$200,000 saved annually using automation
Truist

"For me when our internal teams tried to replicate the Put It Forward technology that was when the pin dropped … these are really smart people"

Sarika Saoji, **Symantec**

"Put It Forward is a solution that I simply love - it can solve so many problems in our company"

Jeff Carano, **Cengage Learning**

"What you just did for our teams productivity and how we work was magic - you guys are rock stars, I'm truly blown away"

Uma Asthana, **Facebook**

Next Level Experiences

The Essential Guide to Intelligent Automation

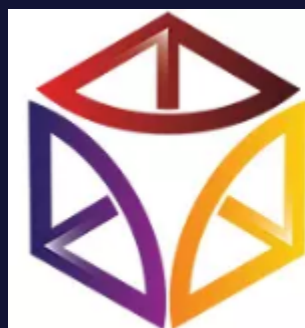Go from the essentials of intelligent automation to detail step by step.

Put It Forward | What Is Intelligent Automation And How To Make It Work

Intelligent automation automates non-routine processes and tasks that require some level of thought. Learn its...

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Get an understanding of the drag and drop predictive analytics.

What is Predictive Analytics: Benefits, Types and Tools

Predictive analytics uncover and unlock meaning within an organization's data and turn it into events on which the...

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