Predictive Dialing Today

A Sytel Compendium
with Special Reference to the US

Technology
Performance
Compliance
Practice

Contents

Introduction

The paper looks at predictive dialers in today's markets both in the US and also in other major territories around the world. Its purpose is to throw light on how dialers are designed, regulated and used. And in particular, our aim is to use these issues to set our own dialer, the Sytel Dialer, in context.

Why the US focus? What happens in the US sets a template for what happens in other countries around the world. We are going to consider telephony issues and also compliance issues, insofar as they apply to outbound calling only.

We aren't going to address wider issues, such as who may be called, when and how often. These are important issues and users of our predictive dialer can manage these through our real-time compliance engine.

And there are other things that dialers do, such as call progress detection and allocation of live calls to agents, but the standout function is how they dial and that's the subject of this paper.

Simply put, predictive dialers can dial multiple numbers per agent, enabling them to enjoy higher talk time per hour than otherwise. We will explore how this is done.

Some Dialer History

But first let's go back to predictive dialing roots in the US. This was particularly in Collections and Long Distance Winback in the 1990s. The typical live call rate[1] was in the range of 30%-40% and campaign sizes were usually 50+ agents. These statistics are kind to dialers and you didn't need a first-class dialer design to get good predictive performance.

But the market was changing, and consumers were getting fed up with answering the phone and either the caller hangs up, or there is just silence. Around 1998, the US Federal Trade Commission (FTC) told industry, especially telemarketers who had jumped on the bandwagon, to get their act together and stop the growing incidence of such calls.

Under pressure from the FTC, the US Direct Marketing Association produced a code of conduct, which quickly was more honoured in the breach than in the observance. Reaction in the UK was similar. In the US, the FTC eventually got fed up and brought in their own code of practice for telemarketers in 2002. The UK did likewise, but with a wider remit.

Usually when regulations are imposed in any industry sector in the US, regulators and industry get together to agree on how product shortcomings should be addressed, and then often, set appropriate timelines for compliance. Take for example how car emissions standards have been

[1] The number of calls answered by consumers per 100 calls dialed.

set in the US. A period of time was given for industry to innovate and be in line with changing regulations. Such a coming together **never** happened in the dialer market in the US, or indeed the UK.

Some major users in the US told the FTC that they were dialing at very low levels of abandoned calls, whereas typically rates were actually up to 40% of live calls.

The FTC realised that a voluntary code of practice didn't work and held hearings in 2002 to figure out what to do. A transcript can be found here:

http://www.sytel.com/wp-content/uploads/2021/11/tsrfrn.pdf

Sytel was actively involved as an advisor in these hearings.

Because of past experience, the FTC had no love of dialers and happily took the industry at its word, when it claimed (erroneously) that it was operating at very low levels of abandoned calls. It made it easier for the FTC to set a 3% maximum for abandoned calls in its regulations. There was in fact no scope for a higher figure, since the State of California had already set a 3% limit.

Astonishingly, no one told the FTC that dialer vendors would struggle to dial efficiently at this low level of abandoned calls. Nor were the FTC interested! They didn't care. Most dialer vendors and also the US Direct Marketing Association, thought that because of years of bad practice, predictive dialing would get banned. Sytel was a sounding board to the FTC at the time and advised that it was possible to run dialers effectively at a 3% abandoned call rate.

Anyway, this rate became enshrined in the FTC Telesales Rule – see Section 5 below.

For reasons Sytel is not aware of, it was decided that the FTC regulations should apply to telemarketing activities only and not to other verticals such as collections and market research.

No vendor complained about the regulations! Some vendors took steps to try and improve their products – and then marketing departments kicked in with claims of being able to operate effectively under compliance!

Even as this note is being updated in 2025, there is remarkably little informed discussion between regulators and vendors. This includes particularly the UK and the US, but also other countries such as India and Australia.

And the reason simply is that there is still a gulf between what regulators expect on compliance and what most vendors are able to do. Or to put it differently, in our experience, many vendors have not innovated sufficiently for their dialing products to remain effective under compliance.

All About Dialer Design

Dialer designs vary widely. For example:

- Some are very basic, e.g. where the multiple dial function is just a ratchet mechanism that can be raised or lowered by either the dialer supervisor, or the dialer itself.
- Some systems rely upon predial logic to determine when an agent is on a call and try and estimate when the call will finish
- More recently the idea of using standby agents has (again) become popular.
- And other dialers employ a variety of algorithmic functions, AI and Machine Learning.

A common theme across all dialers is that of adaptation. At best, they make an informed guess, get it a bit wrong, and then nudge the dialer in another direction, at which point the underlying conditions being dialed for may already have changed.

We are happy to comment on other dialers as relevant.

In practice, the only way to achieve effective predictive performance without lots of nuisance calls is to use a combination of massive simulation and AI as Sytel has been developing and refining over many years.

Sytel Dialer Design

The predictive dialing problem cannot be solved with the methods above, including all algorithmic approaches. It is Non-Polynomial (NP) complete.

Hence why Sytel has spent many man-years in the design, building and constant improvement of a specialist simulation engine, the Virtual Event Machine (VEM®), to make pacing decisions, with the challenge of providing the best possible performance for any set of campaign conditions.

And that led us to develop and deploy AI techniques, many years before they became in vogue. In a traditional sense, AI involves applying learning models to datasets to achieve a specific goal. For predictive dialing, two datasets are needed:

- detailed call history and
- the real-time current state of resources

To address it, Sytel's approach is to perform continuous iterative simulations, reacting instantly to **all** state and event changes on a campaign

Combining iterative simulations and real-time decision-making is inherently difficult, even with the most advanced processing techniques. Most of the work required cannot be done in parallel so is limited by single-thread processing speed.

Sytel's highly optimized native code has been perfected over decades, enabling it to deliver new pacing decisions for even the most complex campaigns, in under 30 milliseconds.

And a single campaign may run multiple simulations at once to accommodate the differing behaviors of leads, retries, and callbacks.

Speed is crucial: Every time an event happens, e.g. a call is launched, or answered, or a customer hangs up, or an agent changes state, or wants to go on break, the shape of the dataset changes and the pacing needs to be re-run to make a new dial decision.

In a campaign with 100 outbound agents, that's many times per second, growing exponentially as the live call rate drops.

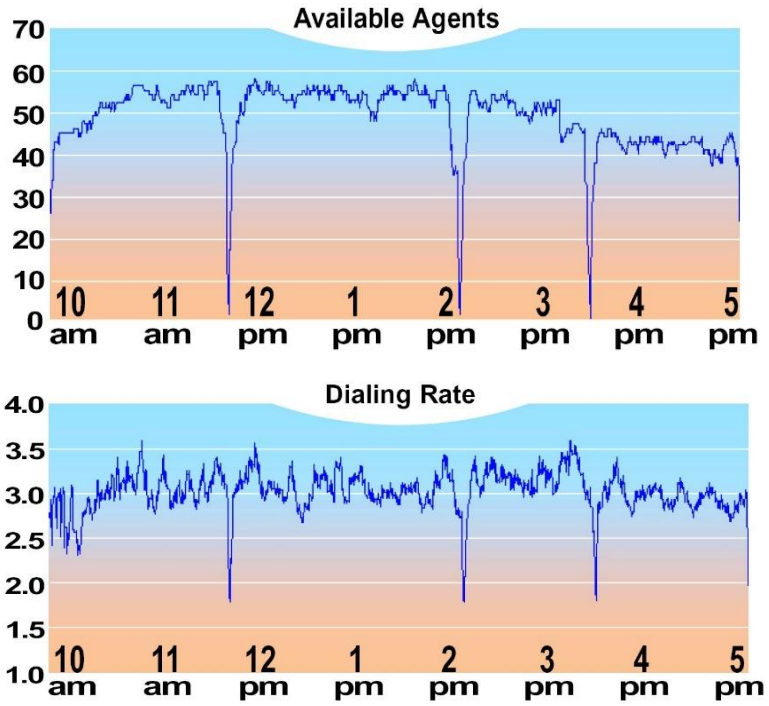


Figure 1. The Sytel Dialer at work

Earlier in the paper we noted that agent-specific predialing is not productive. A well-designed dialer does generate a predialing effect but not related to any specific agent.

Figure 1 graphs agent availability against the dialing rate, in a campaign run by a leading BPO. As you can see, the higher the number of agents on a campaign, the higher the dialing rate, whilst the abandoned call rate was kept within compliance rules. As the dialing rate goes up, the dialer is effectively predialing not for an agent, but for **any** agent.

Note the three dips in agent numbers as they went on break and how the dialer immediately recalculated the correct dialing rate to avoid unwanted abandoned calls; the abandoned call rate stayed at 2% of live calls throughout the campaign.

What is Dialer Compliance?

The telecom regulators in the UK and the US provide the standard. There are three basic rules. You may dial multiple numbers in respect of each agent, provided that you comply as follows:-

(i) Early Hangups:

The scope for any productivity gain from this practice (sometimes known as cancel dial) under compliance is extremely small, and the chances are that you are actually hanging up on a number that is already ringing. Early hangups should be avoided and cannot be made with the Sytel Dialer. When a number is dialed, it should be allowed to ring for at least 15 seconds, as per compliance rules. In today's markets,

for calls to cell phones, there is a case for industry to suggest going back to a lower number. We are not aware of any pressure to do so.

(ii) Abandoned Calls:

Some users calculate this measure as follows; - (abandoned calls)/completed dials. This is an 'all calls' measure and has been rejected by all regulators. Some vendors encourage their users to adopt it on the basis that it sustains a much higher dialing rate. It does so only at the expense of a lot more abandoned calls, particularly with low live call levels. Take for example a campaign with a live call rate of say 20%, then the 'all calls' measure of say 3% translates into an abandoned call rate of almost 15% when the 'live calls' measure is used.

Use of the 'all calls' definition is not just wrong but very bad practice. It is worth reminding ourselves that an abandoned call is one less consumer for your agents to talk to![2]

(iii) Live Customers Should Not be Held in Queue:

Non-compliance with this rule is certainly the biggest contributor to nuisance calls in all countries where predictive dialing is used. The point of the rule, as far as the regulators are concerned, is to minimise the nuisance by playing a message when no agent is available. For example, such as '*Oops we slipped up. We called you but don't have an agent available. We will call you back shortly and make sure that an agent will indeed be there to talk to you*', or similar, and then hanging up and classifying the call as abandoned.

Instead of doing this, we see some contact centers putting calls on hold, and either allowing dead air or playing a message asking customers to hang on since an agent will be available shortly.

It perhaps takes a special sort of person who is happy to be treated in this way.

We have always thought this is not just a bad practice but one that is not in the interests of contact centers. We conducted our own experiment some years ago and made 100 live calls on a random basis across the US, just to see how customers reacted. We asked our caller to say nothing and just record the point at which a customer hung up on what they saw as a dead air call. And we asked our caller to take a note of anything these customers said – to the dead air line. Conventional wisdom is that people hang up early. Many of us say that is how we behave. We want to show that we have no truck with silent calls and that we kill them quickly.

It simply isn't true! When you call somebody, people genuinely want to know what is going on. Could be really good news. Or maybe you haven't talked to someone today, so you hang on. In our test, the average hangup time was 13 seconds! Now dialer vendors know this, and it is one reason why their own

[2] As an approximate measure to make the conversion to the 'all calls' rate, simply divide 100 by the live call % and then multiply the 'all calls' rate by this number.

customers are sometimes encouraged to do it!

Playing a message such as "*we will get to you shortly*" instead of dead air, may make little difference. The people we contacted were very unhappy and subjected the person doing the test to some serious invective.

So, the point of all this is that to ring a customer and keep them waiting is not just a straight intrusion on their privacy; it's bad for the health of the campaign. Customers resent it and it is certain to interfere with the quality of the call.

Coping with Compliance

Sytel doesn't mandate compliance, but our advice always is to work with it and see what performance you can achieve. Even in a no rules environment, there's no point in racking up lots of nuisance calls, if compliant dialing gives really good results.

The best basis for judging whether a predictive dialer is any good, is how much extra talk time per agent hour it can produce without lots of nuisance calls, when dialing under compliance conditions or similar, as it moves from progressive to predictive mode.

The improved performance can be described as 'predictive gain'. Go to Appendix 1 to see what is achievable with a well-designed dialer, such as the Sytel Dialer. Note that the lower the live call rate, the higher the predictive gain. And of course, the corollary of this is that if a dialer is not designed to cope with compliance, then the opportunity cost (i.e. the loss in productivity) can be equally big.

What has been very noticeable over the years is that no responsible company anywhere – certainly in the more developed countries – wants to dial outside the kind of limits set by the FTC (US) and Ofcom (UK) compliance rules, even when they are not directly applicable in the particular country or market vertical. A good example of this is Market Research. The bigger players, many of them Sytel customers, are inclined to dial within compliance limits, even when, as in the US, they don't apply to their vertical.

There has been no serious public debate as to whether dialers can dial effectively under compliance. The dialer community was essentially a 'no-show' when it came to deciding, for example, what a reasonable level for abandoned calls should be under the FTC Telesales Rule. And as noted earlier, other vendors by and large haven't complained about compliance but rather tend to support compliance rules and their adherence to them!

Nevertheless, in Sytel's view, we have seen little evidence of other dialers that were built from the ground up to deliver very good performance under compliance. This matters because a dialer that was not designed to do this may have to sacrifice performance substantially in order to remain within compliance limits.

As people don't answer their phones and live call rates have fallen, the challenge of

dialing effectively under compliance has just got a whole lot harder.

To help understand this, imagine that you are running a predictive campaign where..

- Just two in every ten calls are answered by a person, and
- you are working within a limit of 3% for abandoned calls, measured as a % of live calls (typical compliance setting)

What is the maximum number of abandoned calls you can make under compliance per one thousand calls dialed? The answer lies in the associated footnote.[3] Don't look! Try and figure out the answer for yourself first. If you get the wrong answer, do not feel bad. Most people don't get it, because intuitively it just seems impossibly low.

The result is completely at odds with how dialers have been designed and thought of historically. Suddenly abandoned calls are not only the sole kind of nuisance call that a dialer can make, but they have also become a very scarce resource. Use up your small quota too quickly and you have to dial in progressive mode to remain compliant!

Unless predictive dialers have been designed from the ground up to cope instantly and precisely with any and all changes to campaign conditions then they are unlikely to get far into the 1000 calls in our example, before having to revert to progressive dialing.

Performance Check on the Sytel Dialer

There are several things that can be done to check out Sytel Dialer performance, especially against the competition:

- Trials are always available. The results should be clear very quickly and, in practice, there is no need to run these for more than a few days.
- Request a demo of Sytel's planning tool, Oceanic®. This can be used to show the extent of 'predictive gain' possible, for any outbound campaign.
- In addition, as the customer wishes, a side-by-side comparison can be run with any other dialer. Sytel has experience of such bakeoffs and can advise on setup, such that like is compared with like.
- Without even doing a bakeoff, Sytel can do an analysis of logs produced by other dialers, carefully excluding any personal information, to show how they dial compared to Sytel.

Dialer Challenges

Let's consider some typical challenges met by Sytel's AI Dialer on a regular basis:-

(i) Live call rate less than 10%

Sytel has many customers, especially in the Collections market whose live call

[3] 20/100 x 3/100 = 6 per 1000

rates are very low. The 'predictive gain' can be 25 minutes or more in the hour.

For comparable dialing performance against other vendors, at this level of live calls it is not uncommon for the Sytel Dialer to be dialing at say 3% abandoned calls, when a competitor is well into double digit abandoned calls.

(ii) Significant patterns of bad data

Good dialing conditions are when users clean their lists so that all numbers are valid, and networks never get overloaded and/or return bad codes. The real world is different, and dialers not only need to highlight such data for user action, they also need to manage their pacing so that agents are still kept supplied with a constant stream of answered calls. The Sytel Dialer does this seamlessly, without user intervention, even when bad data rates are as high as 90%.

(iii) Constant changes in agent numbers

See Figure 1 above again. The most challenging job for any dialer is to cope with agent movements. As agents enter and leave campaigns, the pacing needs to recalculate immediately, as happened here, in order to avoid abandoned calls.

(iv) Sudden changes in talk/wrap times

Some campaigns may consist of discrete data sets, linked together. As the dialer moves from one list to another, the running history kept by the dialer will change suddenly. It will take some little time for the dialer to know that it is facing a permanent change in dialing conditions – and hence adapt the simulation. As noted in (ii) above, managing such inherent unpredictability is built into the dialer's design.

But better still is when users let the dialer know that the list type is changing, or that they are working with multiple lists. Then it can react immediately, including by running multiple simulations, for lists being used in parallel.

The FCC and TCPA in the US

In the past year, the FCC has confirmed its status as the leading US regulator in respect of rules for predictive dialing. Our frank view is that the provisions of the TCPA are not fit for purpose and we have made a number of submissions to the FCC with a view to encouraging constructive change and also in response to requests for comments.

Readers who want to get a sense of our own contribution to the debate should go to the FCC's Electronic Comment Filing System (ECFS) and search under Sytel.

In the past, the FCC has not always been quick to act on dialing issues, but in October 2025 it produced a bombshell. Not only has it swept away the existing dialing provisions in the TCPA – an action we have been arguing that was long overdue – but it is considering doing away completely with all dialing rules, potentially exposing the US to outbound chaos!

The proposals delivered another shock in signalling a much tougher regime for caller identity. Whether onshore or offshore, there is a move to number transparency

and branding, meaning all outbound calls will be traceable, back to their source.

Our view is that if the proposals in respect of transparency are adopted, as seems certain, then consumers, in future will only pick up an incoming call to them if it is branded, i.e. they know who is calling them.

The US market is slowly waking up to what the combination of these proposals actually means. Here's our view:

- If you use a dialer that only achieves good performance on the back of lots of nuisance calls, then all such calls have your brand on them!
- Will consumers willingly tolerate this, or will it damage the brand?
- There will be a new regulator. The FCC is no longer interested – too much work! The consumer steps in and will be a much more effective regulator. The answer to the question in the previous bullet is a certain yes.
- So nowhere for under-performing dialers to hide!
- Does the FCC realise the full enormity of their actions? We think it unlikely. But they may well be doing the voice outbound market a real favour, by forcing other dialer vendors to up their game and improve their dialing engines, to minimise nuisance calls.

A Global Perspective

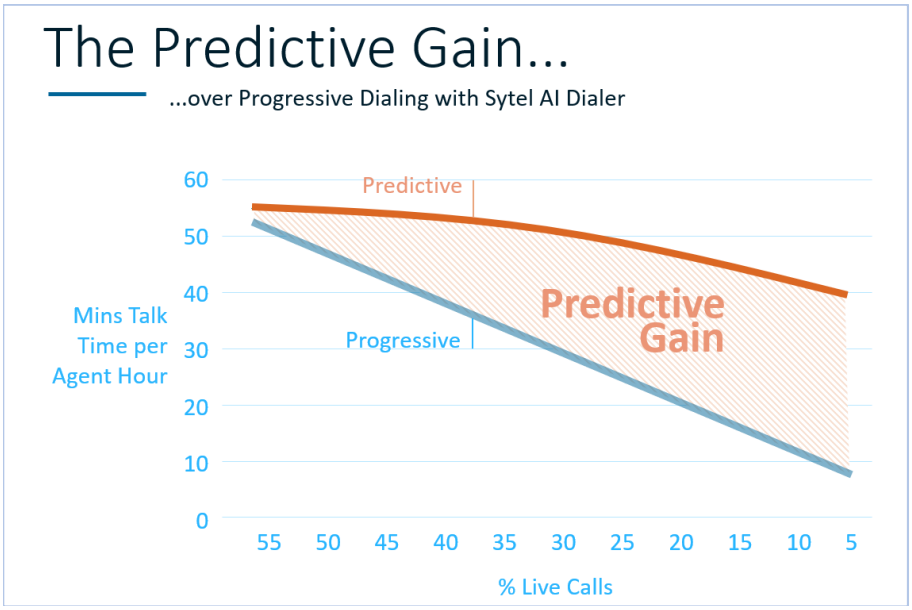
The issues discussed in this paper have relevance across the globe. But there is a common fundamental issue: How can dialers be deployed productively without causing lots of nuisance calls?

The number of people answering their phones everywhere has declined, and live call rates can be as low as 5% in Collections! As noted elsewhere and as shown in Appendix 1, this means a rise in predictive gain.

But in our experience, many dialers in today's markets struggle to maintain good performance without high levels of nuisance calls, with answered calls either abandoned by the dialer or placed into hold queues. The Sytel Dialer provides a solution to this problem.

In due course the impact of the FCC's proposals in the US (see previous section) will be felt around the world, with branding becoming widespread, and eventually an improvement in dialer quality, for there is no choice but to innovate.

Appendix 1 - Predictive Gain



This graph allows us to show how a predictive dialer can deliver enhanced performance compared with progressive dialing, defined as just one trunk being dialed each time an agent is available.

If we consider the 15% live calls point on the X axis, we can measure the increased talk time per hour that the Sytel Dialer brings, by referring to the vertical scale on the Y axis. We can see a difference (i.e. the benefit) of just over 25 mins in the hour.

- The **straight blue line** is just arithmetic. It is what progressive dialing does. When the live call rate is high, so too is talk time per agent.
- The **curved red line** represents an approximation of performance by the Sytel Dialer under the conditions shown, for example a maximum of 3% abandoned calls measured as a % of live calls and just 25 agents.
- Effectively the red line is a measure of how much better a well-designed dialer is than progressive dialing. The test for any dialer is how much predictive gain they can achieve, measured against the Y axis.
- The graph shows clearly that the tougher the dialing conditions (i.e. low live calls), the greater the benefit brought by predictive dialing.

The potential gain a dialer offers, as well as the opportunity cost, goes up as the live call rate drops. To get this into perspective, just look back at the puzzle we posed on page 9.

P.S. If you are a dialer user reading this, do you know your typical predictive gain under both compliant and non-compliant dialing conditions?

Appendix 2 - A User Strategy for a Well-Designed Dialer

There is huge scope, in Sytel's view, for users to come up with some very innovative strategies as to how to deploy the Sytel Dialer.

We believe that many users dial outside strict compliance limits and would welcome a performant dialer that can work well within them, for example within the limits set by the FTC Telesales Rule.

Many consumers are wary of answering the phone and live call rates are at historic lows. This creates a big dilemma for users of other dialers. Avoid nuisance calls or go for reasonable performance, **but you can't have both!**

In our experience many users are only too aware of the negative impact that nuisance calls have on their brand and are often reverting to progressive dialing. From a productivity point of view, as can be seen in Appendix 1, this is not a good solution.

It is no wonder then that digital outreach is popular, as users and vendors struggle to reach their consumer bases. But a lot of research shows that many consumers still welcome a well-conducted conversation. Imagine the following voice outreach programme:-

- When we call you, we will have an agent ready to talk to you
- We will never place you in a wait queue while we look for an agent to talk to you
- We will also never hang up on a ringing call to you, because no agent is available to you, should you answer the call
- And in the very unlikely event that we can't talk to you, we will play you a message, apologising. Then we will be sure to have an agent available and have them call you back immediately.

Combined with a strategy of branding the name of the caller rather than number spoofing, this, in Sytel's view, is a way of earning trust with consumers and seeing live calling rates rise. But it needs the power of a well-designed dialer, like the Sytel Dialer, to be effective!

Appendix 3 - Can AI Build a Predictive Dialer?

As indicated in this paper, we have deployed some AI techniques in the development of our dialer, but we have never considered handing AI the full task. Let's see why.

When Sytel built its first dialer many years ago, we looked at a range of designs and settled quickly on the approach that still underpins our pacing engine today. At the time we were pleased, we could see a sensible dialing rate emerge, and the early results looked reasonable.

What we didn't appreciate then was how much adjustment and fine-tuning would follow. Getting from "a dialer that works" to "a dialer that performs well under all dialing conditions, with minimal nuisance calls, across every kind of campaign and condition" has taken many years. That was the real lesson: dialing is fundamentally about planning for the unexpected, and you only learn what "unexpected" looks like by living through it, again and again, on live traffic.

AI has changed how quickly software can be built. If you're weighing up build versus buy, it's fair to ask: with AI doing so much of the heavy lifting, why not build a predictive dialer yourselves? Building a dialer is relatively easy. Building a very good predictive dialer is not.

The hard part has never been writing the code. It's continuously balancing two outcomes that pull in opposite directions: keeping agents highly productive, and keeping abandoned calls within a very low limit, while answer rates, talk times, and agent availability are all shifting, often second by second.

And let's be clear on abandoned calls. You need to achieve good results and no more than 3% abandoned calls, measured as a percentage of live calls. And you can't rely upon cancel dials or putting answered numbers into hold queues. Why? Well it's not just because of regulation but more importantly it's because consumers are catching up. Outbound numbers are now becoming transparent. Make too many nuisance calls and you will get penalised for it by consumers. The brand suffers.

AI can speed up development, simulation, and testing. What it can't hand you is the accumulated judgement of how a dialer should behave: when to accelerate, when to hold back, which signals matter and which are noise.

That judgement only comes from watching an engine run against real traffic, for years, and learning from what goes wrong. Sytel has spent 30 years building exactly that judgement into our engine. It adapts automatically to changing conditions in real time, rather than relying on a team of people to keep tuning it by hand. So when someone says, "with AI, we can build this ourselves," our answer is simple:

Choosing a proven engine removes the development time, engineering spend, and operational trial-and-error that building and refining a predictive dialer from scratch demands — including the years of unglamorous fine-tuning we went through

ourselves — so you don't have to. We're always happy to show you exactly how the engine behaves under real, changing conditions, not just describe it. Before you commit engineering time to building your own, it's worth seeing what 30 years of tuning looks like in practice.