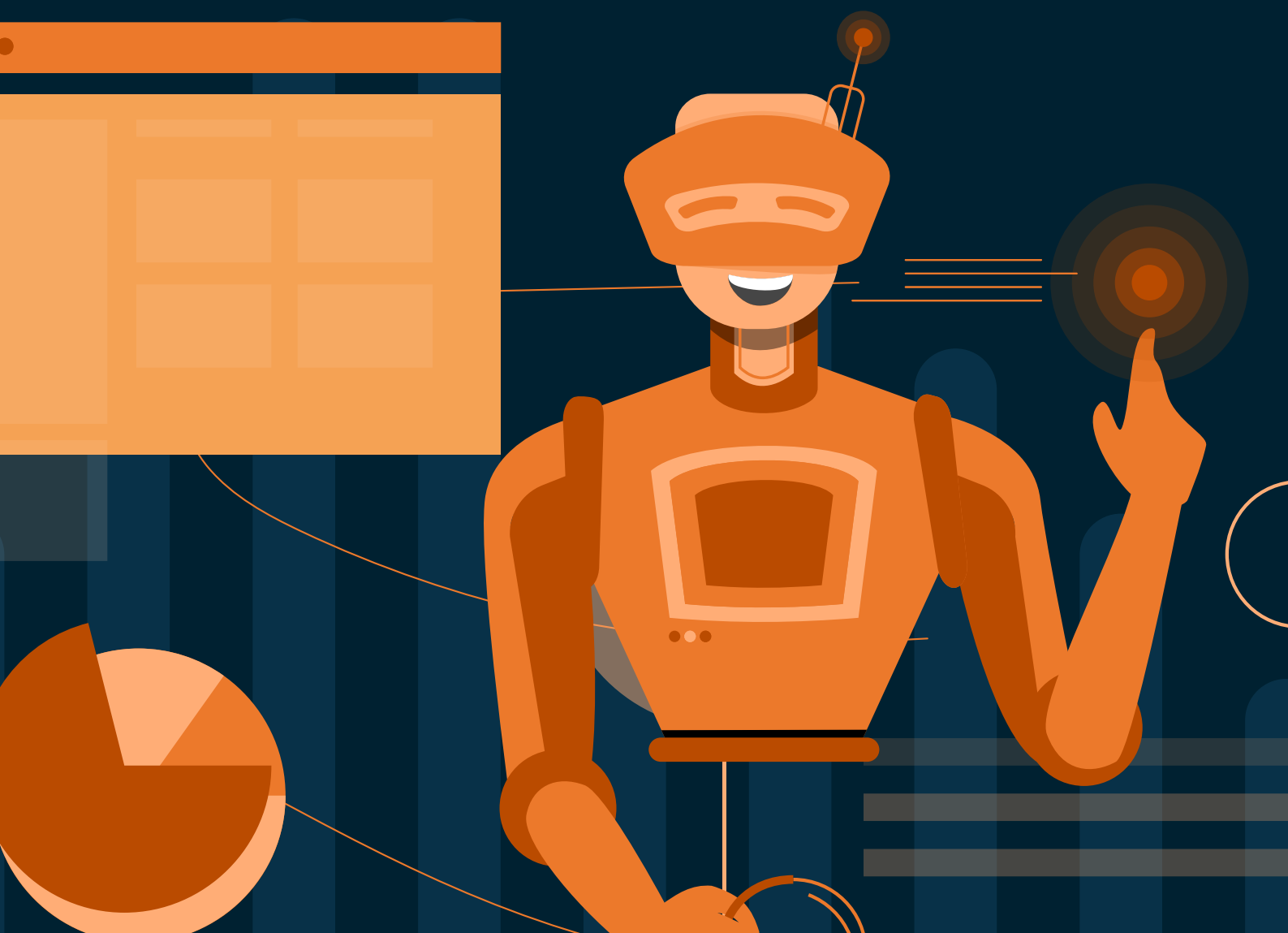


Prodigal White Paper

# Transforming Insights: From Old-School Analytics to High-Performance Conversational Intelligence

How ProVoice Can Improve Your Analytics Using Artificial Intelligence And Machine Learning



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# Introduction

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In the last 20 years, with the use of voice-to-text and word or phrase searches to generate smarter lists of calls for QA teams to listen to, random 2% samples of calls have helped identify more targeted lists of specific call-types — helping to find those ‘needle in a haystack’ situations that must be assessed. The emerging challenge is that those semi-targeted lists are still only 20-40% accurate (inclusive of false-negatives). While helpful, this text-string-search capability doesn’t provide firms the confidence that they’ve assessed a representative sample of every call type, or offer them the broader confidence to act on what the findings reveal.

However, with the introduction of Natural Language Processing (NLP), Artificial Intelligence (AI) and Machine Learning (ML) specifically tuned for lenders and bankers, we are finally seeing accuracy rates of 80-90 percent. It is at this critical level that firms are finally able to expose highly accurate, rapid and actionable insights.

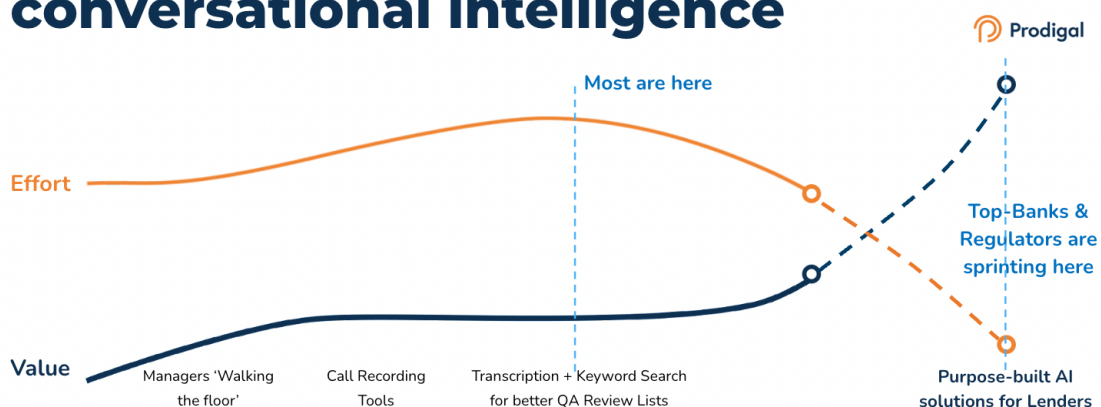
In the next two years, 44 percent of the top 50 banks are planning to replace their outdated voice analytics platforms. This move will begin the major shift from text-search query tools to better and faster AI-driven solutions for all lender and agency contact centers.

## How can Prodigal deliver 80%+ accuracy out of the box?

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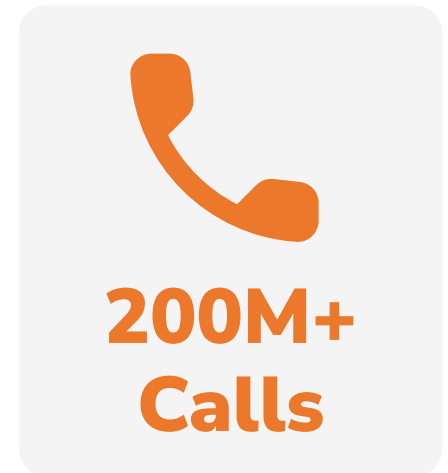
Products can only work out of the box when what went into the box carries a ton of experience with it. Prodigal’s machine learning models are built from the ground up to understand the full conversational context and implications of lending and banking interactions. All new clients get to benefit from years of model optimization and inline error feedback from current clients, as well as the 200+ million calls that have helped target key topics and the context in which they are said.

### Step-change advancements in conversational intelligence



Due to Prodigal's deep vertical focus on these financial interactions, we have a deep expertise. Our models and analytics have been curated using 200M+ calls, which corresponds to over 10% of US borrowers. This focus means our models have been trained on lender workflows, jargon and call contexts. No other vendor or custom-built solution has been able to duplicate our concentrated results, as it is only possible via processing vast amounts of data and ever advancing the accuracy of the insights from user feedback.

Using our expertise, Prodigal has built a curated set of content that has been fine-tuned for the industry and for accuracy. Our software has been tested and refined by our existing wide customer base of lenders, servicers, collection agencies, debt buyers, healthcare revenue cycle management and law firms. This means that from Day 0, you'll have a curated set of highly actionable analytics to go live with, rather than spending months setting up your custom analytics.



## What sets ProVoice apart from competitors?

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### Let's get technical...



#### Audio & Text Search

Our base analytics solution goes beyond transcription or speech-to-text accuracy. We use both transcription and phonetic searches for the purposes of detecting actual event types on calls.



#### Entity Recognition

We employ entity-recognition models that understand the context of conversation and then categorize the important snippets of information into salient points of detection. This contextual understanding sets us apart from the competitors who rely heavily on transcription and are often unable to detect and accurately categorize important pieces of information into specific 'entities' and the context in which the information is given, such as balance stated, payment plan arrangements, settlement amounts, client names, etc.





## **Models That Understand Context for Event Detection**

Our models go far further than simple text string searches; they follow the context of the conversation and predict what the meaning of a sentence is, even if the sentence is incorrectly transcribed. This capability alone allows Prodigal to be far more accurate than the competitors, as their solutions are a direct function of the original 85% accurate transcription.

Consider redaction capability as an example of contextual accuracy. Most models search for key phrases like number sets. This results in significant over-redaction, removing things like consumer account number when they only want to redact social security numbers. Our redaction models follow the context of the conversation to help improve accuracy and prevent over-redaction. Given Prodigal's focus on the financial vertical and our model design, our models handily beat out Amazon's redaction models in accuracy.

Furthermore, sentiment models typically only look for keywords and then gauge the sentiment based on the presence of those words. Prodigal's models, however, follow the context of the call and gauge the borrower and agent sentiment based on the full conversation.

Competitor models, for example, might mark a conversation where the borrowers says "No, I'm not angry, just thinking." as a negative sentiment due to the word angry. Prodigal's software would mark that as neutral or positive based on the remainder of the context.



## **Improved Accuracy and Range of Detection Due to Semantic Similarity**

Typical event detection analytics are done by searching for a select list of phrases, which if detected in the transcript will then trigger that event. Wrong Number Detection could be triggered by: "This is a wrong number." or "You called the wrong number." In the typical models, the following phrase would not trigger the event: "There is no person by that name here." This is due to the fact that this phrase was not included while building the analytics.

Prodigal utilizes semantic similarity models that ingest an initial list of phrases to look for, but goes a step further by introducing our purpose-built ML models to analyze context and expand on those phrases. While it begins with the same basic phrases as Competitor Model A, our model learns and understands additional context — and flags topical phrases accordingly. For instance, our software will flag the phrase: "You've got the wrong person." or "There's no person by that name here." It requires no heavy lifting during setup, and no heavy lifting to achieve, maintain or optimize accuracy performance over time.

# Why is this accuracy important?

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To arm your company with the long-awaited insights to allow confident action, you need to trust your analytics. Prodigal's dedication to generating 'as good as/better than a QA analyst' accuracy means you don't have to do additional random-sample validation. It also means you don't have to stay up at night wondering if you've caught everything in QA. Your company can finally act with confidence and without having to validate with the random sample test.

For example, while other solutions (with 20-50% accuracy) will create reasonably targeted QA review lists that intend to expose calls with certain attributes, only half of those calls will actually include the issues needing to be assessed. The other half will be 'false positives'. And there is a whole other set of calls that were never identified at all ('false negatives'). As a result, while helpful and interesting, that level of accuracy doesn't yield insights you can act on without still listening to a statistical sample of all calls to determine if that target attribute is being serviced correctly. Alternatively, with a Prodigal solution that produces 80%+ accuracy (inclusive of false positives and negatives), you can act on your insights without the validation delay or cost. **Imagine being able to review 100 percent of calls across 100+ attributes every day and have exceptions, trend reporting and recommended actions waiting for you each morning.**

## What is possible with 80%+ accuracy?

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Prodigal's ProVoice software can be implemented in a variety of phases — each subsequent step forward requires a small investment in tag, scorecard or process configuration, but also yields significant incremental benefit. Below are some of the key takeaways users of our product have realized.

### **1 Phase 1 Configuration:**

The software will auto-assess 100% of the calls for purpose, policy, regulatory and customer experience procedure/script adherence. It will also auto-generate QA review lists, provide a platform to review/score these lists and produce heatmap-like views that highlight specific topics or agents that need targeted coaching.

**2****Phase 2 Configuration:**

The software helps redesign and automate the QA process by auto-completing review scorecards. It will also locate critical but very rare call situations that could be overlooked. With this setup, clients can enable in-app agent engagement and call-specific feedback, providing a better process for agent and agency onboarding, training and monitoring

**3****Phase 3 Configuration:**

At this level, the software can extract further insights to drive more complex agent training. Using the data in this phase, clients can reprioritize compliance focus, create analytic strategies and produce more effective agency assignment strategies.

## Case study

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We are a top 25 bank and have used a leading voice analytics solution for 2 years. We have invested the skills from 10 data scientists for these 2 years and can't get the accuracy above a fully-loaded 50%. While working on it has enabled us to generate a list of wildly exciting potential opportunities (ex: automating disposition codes, 75% reduction of QA staffing, far more targeted risk and digital migration strategies), we are hitting the reset button and are now working with Prodigal solely because of the accuracy generated by their highly tuned ML models and use-case-built UIs.

While their solution does require some configuration to align with our definition of target procedures or policies in order to obtain the performance we'd like, it comes out of the box with most of what is needed and achieved 70+% across the board in just the first week — and will allow us to reallocate most of our data scientists to other efforts. After signing the agreement just last month, we are expecting to deploy a first wave of capabilities that are aimed at automating the assignment of call purpose tags that are expected to yield a 25% QA team productivity lift in less than a month.

# What does it take to implement and maintain?

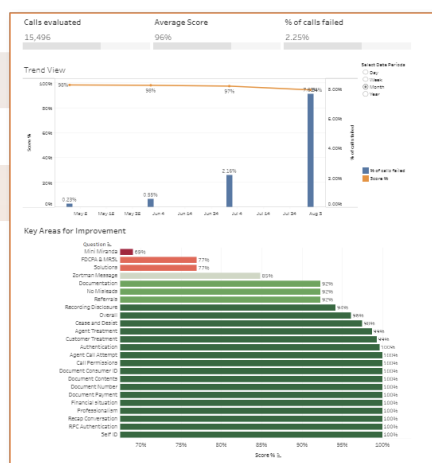
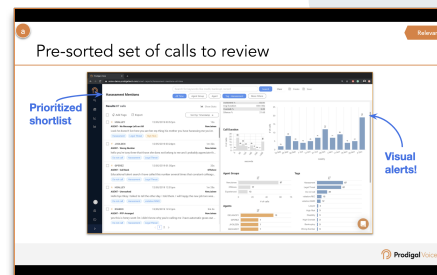
There is very little to no IT development to implement Prodigal's ProVoice software. Prodigal simply needs access to a client's telephony platform to access the needed audio files and associated metadata to begin analysis. From there, it takes just a few hours to train the impacted QA manager and associates on our web portal, which has a simple UI for ease of use. In most cases, Prodigal goes from contract to production in less than a month.

Our platform then provides visual analytics for the call log of your company. These visual analytics make it easier to pinpoint successes and possible improvements, further boosting the productivity and effectiveness of your company.

## What is coming next?

Next up: Time for your organization to finally find the foundational understanding you've been looking for. Better, faster, cheaper, more comprehensive call reviews give you a faster and more transparent understanding of every customer interaction, allowing you to achieve desired business outcomes.

As if reaching your KPIs wasn't enough, Prodigal clients also often build better relationships with their 'upstream' and 'downstream' operating partners, including regulators, analysts, strategists, collectors, originators and loan servicers.



Learn More

Go to [prodigaltech.com](https://prodigaltech.com) for more information or to request a demo.

