AXIS ai

With Axis AI - Artificial Intelligence and Machine Learning solutions, organizations have a superior alternative to manual keying or the ineffective results of other outdated and inferior solutions.

Patient:

- ○ Acceptable ○ Unacceptable
- ○ Too Long ○ Unacceptably Long
- ○ No
- ○ Poor
- Subgingival ○ Supergingival
- gingival ○ Supergingival
- ○ Under
- ○ Too Low
- ○ Open
- ○ Too Loose
- o Light
- r

Axis Enables Manufacturer to Automate Survey Data Collection With 100% Accuracy

A dental implant manufacturing company implemented a customer satisfaction survey process that utilized an intelligent document capture technology that automatically read survey responses and reported the data back to the vendor daily. This would have seemed like a straight forward solution, but there was a hitch, the surveys were completed by hand, and prior to the introduction of an Axis AI solution the quality of the recognition was unacceptable as it was coming back with below 80% accuracy.

By implementing Axis AI the Document Classification and Data Extraction Software with our Optical Mark Recognition (OMR), combined with Axis Technical VBPO (Virtual Business Process Outsourcing) the new results were delivered back with 100% accuracy.

The manufacturer needed to ensure that its client dental practices were satisfied with their products and if not, they needed to know, as soon as possible. By identifying quickly whether the product was meeting their high-level of quality and satisfaction, they could immediately address any issues found. Achieving these objectives depended in part on the ability to get quality feedback as soon as possible.

Every implant shipped with a survey, which had to be completed by hand. There are plenty of other solutions for completing surveys digitally, but many dentists are "old school," and the client achieved a higher response rate going with traditional paper forms. Unfortunately, the quality of the survey responses was inconsistent and in many cases the forms were completed with haste, so-called Lazy Marks, graded with fairly illegible marks. Marks that were not tracked correctly utilizing their original form processing solution.

What Makes Axis AI The Right Choice?

**Artificial Intelligence and Machine Learning systems,
organizations have a superior alternative to manual keying or
the ineffective results of other outdated and inferior solutions.**

OMR software traditionally requires legible and clear marks, however the quality of the marks received here were often outside the scope of legacy software solutions. Automated extraction from the original software solution returned less than 80% accuracy, this demanded that a large percentage of the surveys be manually reviewed and calculated. This process was time-consuming and expensive. It presented a major issue since they needed to segment the negative responses, then manually review and enter them into a data capture system and return the results back to the manufacture ASAP.

As you can imagine quality products are essential when you are dealing with dental implants, slow responses are not effective. Dentists have options when shopping for implant solutions, they need to know their concerns are being addressed immediately. Nobody is smiling when dental quality is in question.

SITUATION

The manufacturers' original solution was a traditional OMR form processing software solution. These solutions have been around for decades, they produced acceptable results with well-marked forms but were challenged with careless handwritten responses. They also don't take advantage of the technical advances in machine learning and artificial intelligence. Legacy document imaging solutions haven't been designed to learn as effectively as the Axis AI software.

INDUSTRY EXPERIENCE

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- OIL AND GAS
- FINANCIALS AND BANKING
- INSURANCE
- HEALTHCARE

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Microsoft
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Partner

Our software can learn when a careless tag really means a valid score, it's not as simple as fill in the dots as on many forms the tags were slashes, X's, check marks or in some cases just a line down a column.

After Axis reviewed the situation, we realized that although our software would produce a superior accuracy rate to the original software, looking at some of the sample surveys it was clear there was no way our solution could get 100% accuracy. The handwriting and the marks were in some cases barely legible for a human, let alone a machine. They needed a solution beyond pure technology.

SOLUTION

Axis addressed the challenge by combining automated data extraction with human manual data entry.   Our software would segment forms that presented issues that the computer couldn't address and had our quality and review team manually read the surveys and enter in the data by hand.

Handwriting today still presents the biggest challenge to automated data extraction, humans have the brainpower and experience to read even the worst handwriting and nasty marking of documents. Our software exceeded the previous solution by returning over 90% accuracy, but there were still some surveys with some serious issues. Think about some of the handwriting you've seen on a prescription from your doctor, you can't make out what they have written, but somehow the pharmacy gets you the right medicine. Our subject matter experts knew what to expect in the survey's comments and with their manual data entry were able to raise the accuracy, resulting in the production of 100% of the surveys being processed correctly and quickly.

BENEFITS

Since implementation, the client is now able to process close to 10,000 surveys per month, with the turnaround on the form's batches in under 24 hours. The client scans the forms one day and has all the results back the next morning.

The reporting system now returns data as JSON XML formatted data, immediately ready to import into their customer management and resolution response process. They can scale on demand and don't have to worry about the fluctuations in staffing requirements. With a superior process that's lower in cost and faster than their previous solution.

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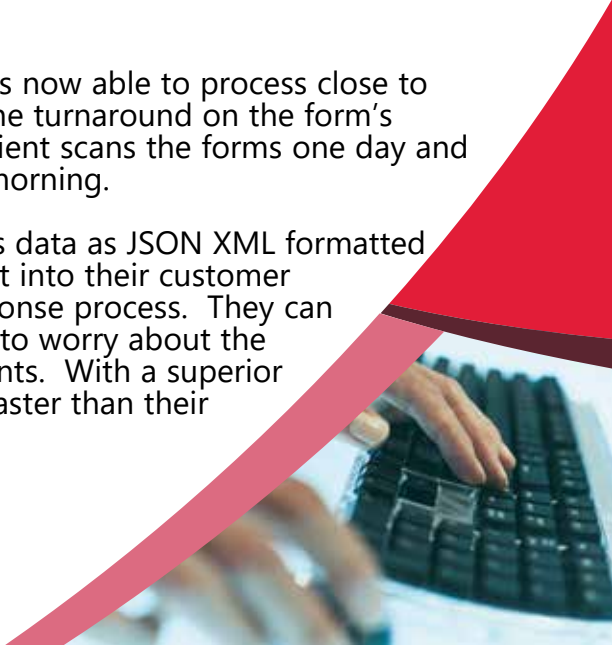
They have relieved their staff of the rather monotonous and frustrating practice of manual review and data entry, allowing their subject matter experts to focus on a faster customer response rate and quality control, versus time-consuming and costly human intervention.

FUTURE

As in many cases, technology is only part of the solution. Axis' staff training, awareness and an understanding of the problems they face and how technology can help in their working practices is critical in helping our client understand the best way to address their business challenges. The client's IT team is working with our Axis business teams to help get the most out of some of their other technology investments.

Many software vendors offer good products, they also have partnerships to enable those solutions. Axis, on the other hand, is your one-stop-shop offering consulting, software solutions and business process outsourcing (BPO) to handle the complete lifecycle and workflow of complex document processing challenges.

Since 2002, Axis has served as a trusted technology advisor to leading companies in the mortgage, title, healthcare and financial services industries. Fast, fluid and focused, our global team offers unmatched technical and business expertise at a reasonable cost. We combine the comprehensive skills and resources of a global consulting firm with a personal, solution-oriented approach.

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