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TRANSFORMING
INSURANCE
WITH
HUMAN-
CENTRIC
INNOVATION

PATRA

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CTO



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AI has the potential to reshape the insurance industry by tackling its heavy reliance on unstructured documents—vital for quoting, binding, servicing, renewals, and back-office transactions. Traditionally, processing these documents required extensive manual input, slowing down workflows and creating bottlenecks.

Patra is redefining this space with several proprietary AI-powered solutions, starting with PolicyCheckingAI (PCAI). PCAI brings AI-based automation and modern workflow to a longstanding industry pain point – policy checking. Policy checking has traditionally involved

hours of painstaking manual review of lengthy policy documents, using rulers and notepads to spot and note differences between documents.

PCAI combines machine learning (ML), natural language processing (NLP), computer vision, and GenAI to automate the most laborious parts of this process while relying on insurance professionals to validate and act upon the automated results. This provides unsurpassed efficiency while maintaining the quality and accuracy needed for this critical back-office process.

Patra's defining feature lies in PCAI's dual service models, which offer clients flexibility in incorporating



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AI into their workflows. Through PCAI's full-service model, Patra manages the entire process for clients end-to-end, leveraging its 6,500-strong workforce to retrieve documents, validate the AI results, and deliver the results securely within client systems. Alternatively, for agencies who prefer to keep this work in-house, PCAI's self-service version enables clients to use the AI-powered software directly, performing their own review and validation. These dual models allow Patra's clients to benefit from Patra's technology regardless of their operational needs. And with either approach, this blend of advanced automation and human verification ensures high accuracy, while freeing up time to focus on client-facing work.

"Our AI elevates human potential rather than replacing it. Our team uses these tools to manage diverse client needs on their behalf," says Tony Li, CTO, explaining Patra's commitment to balancing AI-driven efficiency with skilled human oversight.

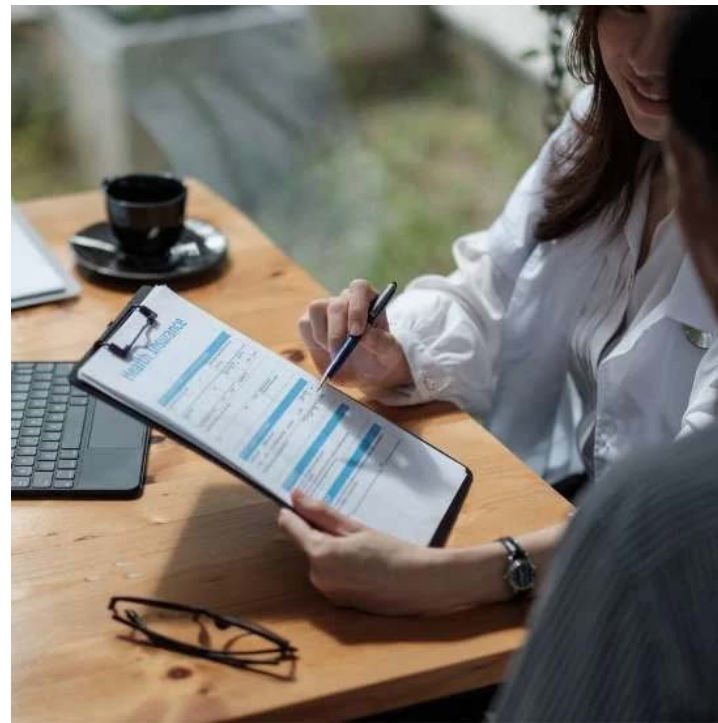
Optimizing Insurance Workflows, One Document at a Time

Patra's success with AI and ML models stems from the quality and volume of data it processes for its clients. After steady growth since entering the insurance industry in 2005, Patra now handles over 20 million transactions annually across various lines of business and carriers. This vast amount of data provides a foundation for Patra's AI systems to continually learn and get smarter.

"Our technology benefits from the breadth and depth of our business in two ways. First, our machine learning models benefit from the sheer size and diversity of the data and documents we process. Second, through years of processing at scale, we've defined best practices and data models for most key insurance processes, transactions, and document types. This allows Patra to build automation solutions that enhance each stage of the commercial policy lifecycle, whether quote comparison, certificate issuance, or policy checking," explains Li.

The wealth of industry experience and data resources also addresses one of the insurance sector's longstanding challenges—the lack of transparency, data standardization, and system connectivity between tens of thousands of brokers, wholesalers, MGAs, and carriers. While sectors like fintech have moved toward open standards and API-driven integration, the insurance industry relies heavily on exchanging unstructured documents for most key sales, servicing, and back-office transactions. This means that huge volumes of valuable data remain trapped in unstructured documents within broker and carrier systems.

Patra's proprietary transformer-based models quickly extract vital information from non-standardized policy documents, significantly reducing the time spent scouring documents for critical data. Future integrations with agency management systems (AMS) and document management systems (DMS) will further streamline workflows, automating routine tasks and enhancing efficiency.



A Faster and Reliable Approach to Automation

When documents enter Patra's system in either service model, its AI pipelines efficiently extract relevant data from even the most complex, unstructured formats. Once this data is extracted from multiple versions of a policy (say, the expiring and the renewal policy term), the data is matched against a predefined checklist of over 900 criteria to ensure all necessary elements are included. Automated keyword and document search capabilities further ensure relevant information is easily accessible when needed.

The real value emerges in the next step. In the full-service model, Patra's skilled team steps in to verify and validate the AI's findings, and to interpret the results, combining the efficiency of AI with the precision of human oversight. Here, clients receive AI-processed results that are ready for an agency/broker account team to act upon.

This hybrid AI-and-people approach allows Patra's systems and people to process large volumes of documents quickly and reliably, delivering higher-quality outcomes, minimizing errors -- and freeing up client time to focus on more strategic tasks while maintaining high levels of accuracy and control.

Any discrepancies are flagged for human review within full-service and self-service models, ensuring accuracy and reducing E&O risk for agency/broker clients. Once each policy is checked, the results are summarized in a clean report in PDF or Excel form, creating a comprehensive record. As the AI system processes more documents, it continually refines its capabilities, adapting to new

formats and becoming more accurate and adaptable, boosting efficiency even further.

Since the launch of PCAI's self-service version in August 2024, Patra has begun a rapid expansion of AI-services. "Since launching PCAI in 2022, setting a new industry standard, we've encountered overwhelming customer demand to apply this same approach to other industry pain points. We're responding to this demand by expanding our offering of PatraAI Services, with new services coming later in 2024 and regularly thereafter" says Li.

With its expanded AI Services, Patra builds on the strong foundation it laid with PolicyCheckingAI, extending automation to a broader range of document types, use cases and client needs. With this expanded capability, Patra plans to rapidly bring additional services to market, helping clients automate and streamline their document workflow.

Clients adopting PCAI quickly realize the benefit of a modern, AI-powered policy checking solution. One client had previously used Patra's traditional, manual policy checking service for its larger commercial accounts, while keeping its small commercial policy checking in-house – where it consumed precious account manager time, and sometimes didn't happen at all (resulting in E&O risk). This client first migrated to PCAI full-service for its larger accounts, and quickly enjoyed the fixed transaction pricing, and having a complete record of all the data and differences in multiple policy versions. They then piloted PCAI self-service within their small commercial team and found that they could quickly and cost-effectively check these policies in-house. Their account managers now spend minutes instead of hours on the task, freeing time up for account teams to focus on client-facing activity. And in both parts of their business, they've got a more comprehensive record than ever before of all aspects of these policies and how they changed from term to term.

Walking the Talk

Hylant's experience with Patra demonstrates the efficiency and consistency gained from a streamlined policy-checking process. Previously, Hylant's service specialists and managers conducted policy reviews through a two-step approach—an initial check of 15 key items within 10 days, followed by a complete review

60 days after receipt. The labor-intensive process extended the average completion time to 90 days, with each policy check requiring approximately 1.5 hours of team effort.

With Patra's support, policy checks are completed within 14 to 30 days at a flat rate based on policy type, significantly reducing Hylant's in-house costs. Patra's involvement has standardized policy processes across the client's offices and allowed additional verification steps without extra expenses. Patra now handles policy bookmarking, previously managed by Hylant and verifies that the issuing company listed in the Epic system matches the policy, minimizing issues related to invoicing, surplus lines and certificates of insurance. Patra also ensures correct policy number formatting that streamlines downloads and allows eDocs to bypass suspense queues, saving Hylant substantial time previously spent addressing these issues. Through this streamlined approach, the client has achieved faster, more consistent policy management, enhancing efficiency and operational effectiveness.

A Clear-Eyed Look at AI

When faced with pressure from private equity and shareholders to cut costs while maintaining quality, Patra emerges as a dependable partner in navigating the fast-moving advanced tech space. As AI becomes a necessity, many companies find themselves overwhelmed by the noise of insurtech startups. Its advantage lies in its deep industry knowledge and proven track record.

"In the race for innovation, it can be tempting to chase the latest trends," says Li. "While generative

AI garners a lot of attention, it's just one of many approaches available. Our strategy, however, is more measured. Rather than being swayed by the hype, we focus on selecting the right tools for each task."

Patra blends smaller, open-source AI models with larger, commercially recognized ones, such as ChatGPT or Claude, to prioritize efficiency and long-term value. This thoughtful approach avoids the pitfalls of blindly adopting the latest technologies and focuses instead on what delivers the best results.

The 'bag of tools' philosophy ensures AI is applied strategically rather than as a one-size-fits-all solution. By tailoring AI solutions to different aspects of complex challenges, Patra enhances efficiency and drives meaningful results for both the company and its customers. It's a testament to the exciting possibilities of the future of insurance—a partnership between technology and human ingenuity, driving business prosperity and employee satisfaction. **IO**

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PCAI HAS BEEN ONE OF THE MOST REQUESTED SERVICES FOR AUTOMATION SINCE ITS LAUNCH IN 2022, SETTING A NEW INDUSTRY STANDARD. THE OVERWHELMING CUSTOMER DEMAND HAS DRIVEN US TO EXPAND OUR OFFERINGS WITH PATRA AI DRIVEN SERVICES”