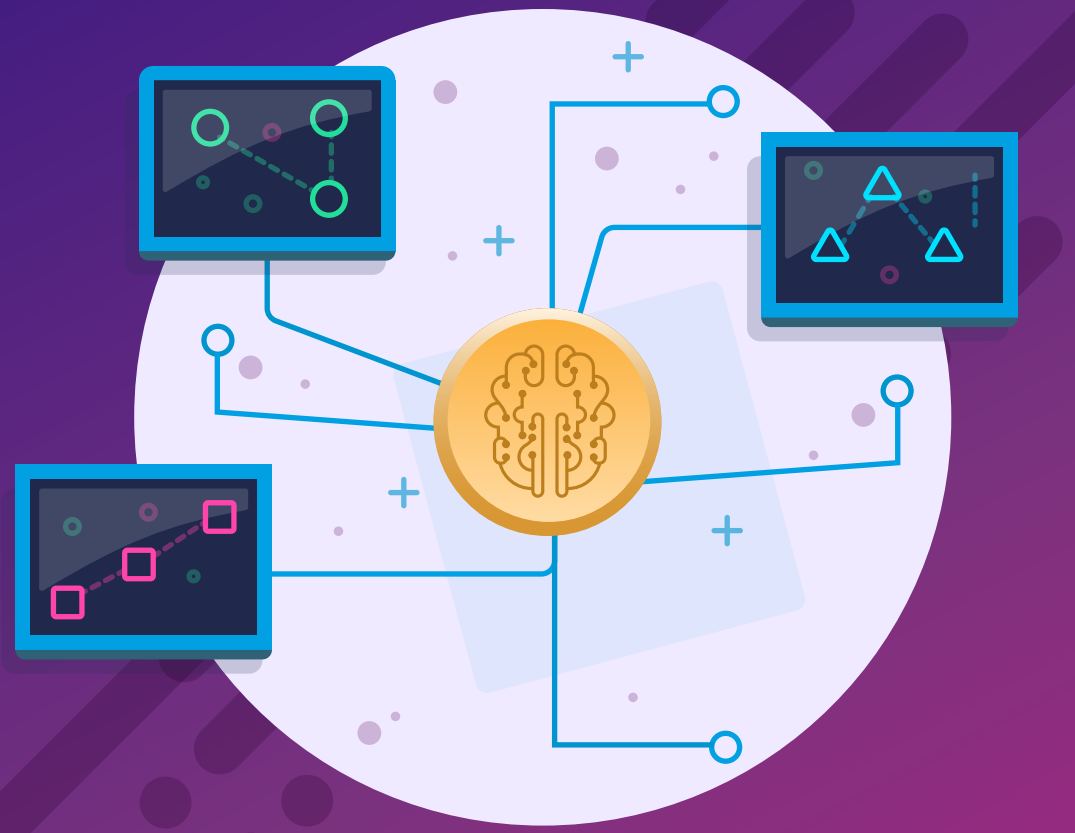
WHITEPAPER

How to manage T&E expenses with AI



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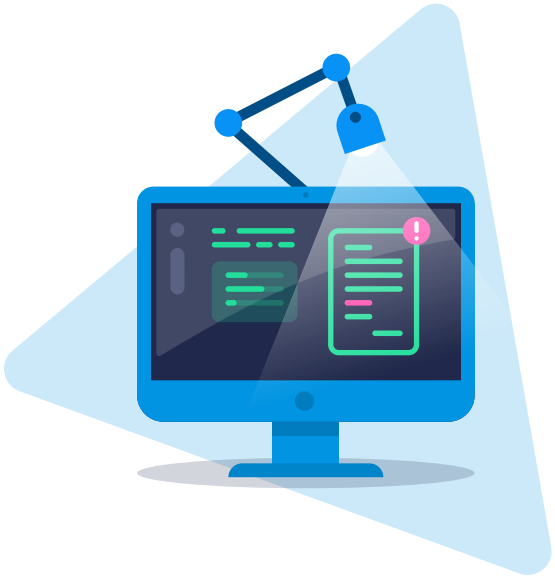
Introduction

If you associate AI with robots, you're not alone. But artificial intelligence has become much less about sci-fi and taking over the world, and much more about behind-the-scenes business transformation. Know those "you might like this" recommendations when you're shopping online? How about those "how can I help you?" widgets that pop up when you open a website? That's what real-life AI looks like today.

Defined broadly, AI is the ability of a machine to interpret and react to situations like a human. There are many different fields of AI. Computer vision (such as Snapchat filters and remote check deposit on your bank's mobile app) makes it possible for computers to interpret the visual world. Machine learning describes mathematical models that allow computers to learn from experience, as people do, so that they can make meaningful predictions about future events. Semantic analysis helps computers use logic to make inferences based on other information they've received. Natural language processing enables computers to understand and respond to text — for example, creating chatbots that can automatically respond to customer communication.

When it comes to AI, there's a wide variety of different techniques and frameworks. Here are a few of the most common building blocks of today's AI-powered tools.

The building blocks of AI



MACHINE LEARNING

Can computers learn from experience like humans do? With machine learning, the answer is yes. This general framework of mathematical models enables computers to make predictions based on past experience. For example, hedge funds can use machine learning algorithms to predict stock market performance and execute trades at high velocity and volume. Marketers use machine learning models to learn what products customers are likely to buy and target campaigns accordingly. Netflix uses machine learning to figure out, based on your browsing and viewing history, exactly what shows you'll probably like from their catalog.

One subfield of machine learning is known as deep learning. Deep learning uses complex models called neural networks to help computers more effectively analyze images and understand text. These technological advances have helped enable advances in AI-based applications like self-driving cars and industrial robots.

COMPUTER VISION

Snapchat filters, Face ID on your iPhone, remote check deposit on your bank's mobile app — all these are common examples of computer vision technology. With computer vision, computers can identify visual objects, extract any useful information, and categorize what they see. This technology has a wide variety of applications — computer vision can help manufacturers automate inspections of products, police forces perform visual surveillance, self-driving cars navigate safely on the road, and much, much more.

SEMANTIC ANALYSIS

From the time they're babies, humans learn how to use contextual clues to better understand the meaning of words and phrases. Semantic analysis is a field of AI that helps computers do the same by using logic to reason from designed models. Computers can use semantic analysis to extract specific, useful information from unstructured data — for example, a chat app might use semantic analysis to help a customer resolve a query without having to ask a human for help.

NATURAL LANGUAGE PROCESSING

Like semantic analysis, natural language processing (NLP) is also focused on understanding text. NLP uses many of the building blocks of AI described above, including machine learning, deep learning, and semantic analysis, to help more effectively program computers to process, analyze, and understand text. NLP can be used for automated (but not robotic!) customer support chat bots, improving results for conversational search terms, helping companies sift through and analyze customer feedback, and more.

5 reasons you need AI in your T&E process

Even if you have a T&E system in place, it's impossible to catch everything. With the average enterprise processing nearly 9,000 expense reports a month, it's inevitable that problems will arise, from undetected fraud, to lagging reimbursement times, and more. For end users (i.e., your finance team), AI-powered spend automation can make it significantly easier to detect and prevent fraudulent, mistaken, or out-of-policy spend.

Here are 5 ways AI helps your team manage T&E more cost-effectively and efficiently.

1 AUDIT 100% OF T&E SPEND, BEFORE PAYMENT

Partial expense report audits are the norm for many businesses — there's just not enough time to review everything. This is especially problematic for T&E expenses, which tend to be targets for employee fraud (think out-of-policy spend, unsanctioned travel upgrades, and more). The error rate for these expenses is high too, since there are so many reports coming from so many different people at any given time. AI automatically reviews every T&E item on every expense report prior to payment and detects any reports that are likely to contain violations. Auditors can review these reports in more detail while paying out the low-risk reports automatically.

2 SNIFF OUT FRAUD

Because AI reviews everything, it becomes much easier to detect not only one-off instances of fraud, but also suspicious patterns arising from an individual employee or a certain team. Many enterprising employees will slip in fraudulent expense reports with legitimate spend to make it harder for finance teams to catch them — but AI is too smart to fall for those kinds of tricks.

3 ADHERE TO CORPORATE POLICY

Many organizations rely on managers to ensure employees comply with their company T&E policy. In this process, managers must approve expense reports before forwarding on to the finance team for reimbursement. With AI, managers no longer need to be involved in the approval process. AI can proactively enforce company requirements without requiring manager approval, verify each expense against your T&E policy, and automatically route low-risk reports for quicker reimbursement. What's more, with AI, you can see high-level analytics to help alert you to any widespread T&E problems or schemes, and create a proactive plan to address them.

4 COMPLY WITH REGULATIONS

AI looks out for numerous risk factors to ensure that expense reports comply not only with your internal corporate policy, but also with any applicable external regulations. These might include anti-bribery and corruption laws, which bar companies from offering foreign officials and politically exposed persons anything of value, or healthcare transparency laws, which require drug companies and makers of medical devices and supplies to document all relationships with doctors or teaching hospitals.

For example, AI quickly and easily scans T&E spend to make sure attendees at business lunches don't appear on any lists of politically exposed persons, and alerts you to any potential risk factors that might result in fees or other punishment.

5

GET INSIGHT INTO SPENDING BEHAVIOR

Not only does AI make your day-to-day audit processes faster and easier, but it also helps provide a bird's-eye view on on T&E spend behavior across the organization. AI automatically provides data-driven insights to help you address issues or guide policy changes across the organization. For example, looking at the data from travel spend might help you realize that your allowed budget for San Francisco lodging is woefully out of date. Or, you might see that while the organization as a whole is doing pretty well keeping to the T&E guidelines, the sales team has a penchant for overspending on client dinners. Having this information easily accessible enables your finance team to more effectively reinforce policies, address misconduct, and avoid widespread issues down the line.

Conclusion

For most companies and even for companies that have already introduced some degree of automation, there's a huge opportunity to improve the T&E process and make life easier for your finance team and employees alike. Artificial intelligence (AI) helps your business reduce travel and entertainment spend, comply with policy, and streamline processes.

About AppZen

AppZen delivers the leading AI-driven platform for modern finance teams. The AppZen Platform is built on 7 years of learning from thousands of online sources, thousands of customers and billions of financial documents and transactions like invoices, contracts, expense and accounting data. Starting with business spend, we automate manual process, uncover problems and optimize decision making at scale for finance organizations around the globe, including one-third of the Fortune 500. The AppZen Platform combines patented computer vision, semantic analysis, and deep learning to understand financial transactions in business context and make decisions before those transactions happen. It is a must-have for CFOs and their teams to comply with policy and regulations, streamline process, and reduce spend.

Over 1,650 enterprises have standardized on AppZen, including four of the top five banks, four of the top ten media companies, four of the top ten pharmaceutical manufacturers, two of the top five aerospace companies, and six of the top ten software providers. Visit us at www.appzen.com and follow us on Twitter @AppZen

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