How AI is driving product design in the payments industry



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Introduction

Artificial intelligence is transforming industries worldwide, and the payments industry is no exception. By streamlining product design and optimizing operations, AI is empowering manufacturers and fleet managers to meet the challenges of a rapidly changing market. According to **McKinsey & Company**, global investment in AI technologies reached $165 billion in 2023, with a significant portion allocated to automotive and logistics innovations.

For payments fintechs, AI offers new opportunities. AI can help companies solve long standing customer problems in new ways – new technology allows businesses to design faster, remove the work from work, and help accelerate growth.



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Using AI to transform the customer experience for fleet card customers

Karen Stroup joined WEX in 2022 as Chief Digital Officer. Stroup oversees WEX's product experiences, enabling capabilities, design, data and analytics, AI, and transforming WEX's ways of working to help unlock growth and create exceptional customer experiences. "On my team we get to reimagine future experiences, understand where the product is going, how market trends are playing out, and what could be developed in the next few years while also being a steward of WEX's products and experiences in the short-term." With all of these imperatives, Stroup's team is working to build WEX's product and design capabilities and elevate them in the service of enhancing the customer experience and unlocking growth.

Using AI to transform the customer experience for fleet card customers

Across WEX's lines of business Stroup's team finds ways to improve products through AI. One example comes from WEX's Benefits line of business. This part of WEX's business offers complete benefits administration, including benefits accounts such as HSAs, FSAs, HRAs, LSAs, and COBRA. Daniel VanderMeer, on Stroup's team, led a team that trained AI to serve as a "Benefits Assistant," for its Benefits customers. As Stroup saw it, "The opportunity for AI to transform the open enrollment process for Benefits was extraordinary." The tool provides users with—as Stroup describes it, "a healthcare professional in your pocket."

Benefits Assistant is an on demand guide for anyone who has to make changes to their benefits. Using generative AI, the assistant plunks a new and unique interface right on top of the large language model (LLM). "You've got all the data underneath, and what this enables us to do is create that human interaction for its customers where you can ask questions specific to your individual needs and get responses in a conversational workflow," says Stroup. Behind the scenes, WEX's AI analyzes all the data about the customer and responds to their questions using the information it's already analyzed.

Recently we sat down with VanderMeer, WEX Principal Data Scientist, to talk about how his team thinks about AI in our industry and how AI is helping to improve WEX products. "We see embedding intelligence into our products as a giant opportunity to improve the lives of our customers and to add to the value in our products. We want to delight our customers, and we achieve that by helping them quickly solve the problems that they care about. When AI is deployed effectively it can reduce the friction present in our lives and free us up to do our important work."

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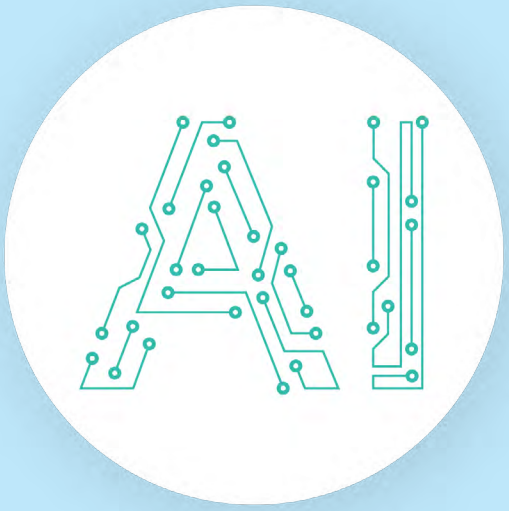

A career in technology that led to product design for a fintech

VanderMeer, originally from the Netherlands, moved to the U.S. to study mathematics and computer science as a teenager. “After college I ran a small software company called ‘Polarity Software,’ building custom software solutions across a number of industries. We were a small team, so we had to wear a lot of hats. I had to learn how to handle a lot of different aspects of the software business, the technology, the product, UI/UX. But the most important thing I learned was to focus on the customer above all else. If you can deeply understand what your customers care about, you can anticipate solutions that will resonate with them and you can provide value.”

The advent of machine learning and AI and how payments tools were built at WEX

Early in his career at WEX, Daniel helped design and architect ClearView, the WEX fleet manager analytics platform. “It was during the building of ClearView that I became obsessed with Machine Learning and AI. The ability for systems to learn and improve over time was very compelling.” He is currently heading up a team under Stroup focused on transforming and reimagining internal and external products using AI.

In 2024, VanderMeer partnered closely with WEX health product managers in order to re-imagine the company’s benefits product using AI and was instrumental throughout the process all the way to its recent launch. His process of developing the idea for the Benefit Assistant sheds some light on how Stroup’s team works.

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The path to new product ideas can be organic to just living our lives

VanderMeer often comes up with ideas for new products in unexpected places. For the Benefits Assistant, he was at the airport flying home after a WEX event and ended up chatting with another WEXer, Adam Cohen, an expert in Health Benefits, who was waiting for the same flight. Cohen and VanderMeer ended up discussing WEX's health insurance benefits. VanderMeer realized he could learn a lot from Cohen about how to maximize his health benefits. "He was telling me all about HSAs and how you can use your health care dollars as an investment vehicle and I quickly realized that I'm not even close to optimizing my medical benefits. "We then very naturally stumbled onto the idea, 'Wouldn't it be fantastic if everybody had an 'Adam?' If we made an AI that's like Adam Cohen...and available during open enrollment, they could just talk to this AI and get answers to all their benefits questions."

WEX CEO Melissa Smith happened to be waiting to get on the same flight and joined VanderMeer and Cohen's conversation. After an energetic impromptu brainstorming session, VanderMeer says, they unanimously decided to explore this idea. "We have something very interesting and potentially disruptive here..." The following week, Daniel partnered with Adam and others to create the first in a series of prototypes of what would become the WEX Benefits Assistant.

This partnership marked the beginning of an extensive and educational journey toward developing a production-grade medical benefits AI. The project involved rigorous AI training and fine-tuning, thorough evaluation in partnership with WEX benefits experts, exhaustive testing, and close coordination with WEX's AI engineering partners. This was all done to ensure scalability while addressing critical privacy, compliance, and legal considerations.

"It's relatively easy to build a prototype of an idea using foundational models, but it's actually very difficult to build robust AI solutions that are highly accurate, that can operate at high scale and that are deeply personalized for each individual customer. The true power of AI is unlocked when you can produce technology that your customers can deeply trust to produce insights and to take action on their behalf."



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AI-driven telematics and fleet management

The fleet segment also provides opportunities for innovation leveraging AI. “We are embedding sophisticated intelligence directly into fleet management processes.” WEX serves approximately 19 million vehicles globally (as of 2024), encompassing its U.S. fleet operations, over-the-road (OTR) trucking fleets, and European market segments.

The innovation team’s latest AI initiative leverages advanced algorithms that seamlessly integrate fleet payment information with real-time telematics data collected directly from vehicles. This powerful combination provides fleet managers immediate, actionable intelligence, making it easier to understand what is happening within their complex workflows, to be able to deal with problems and to be able to make adjustments to optimize operations.

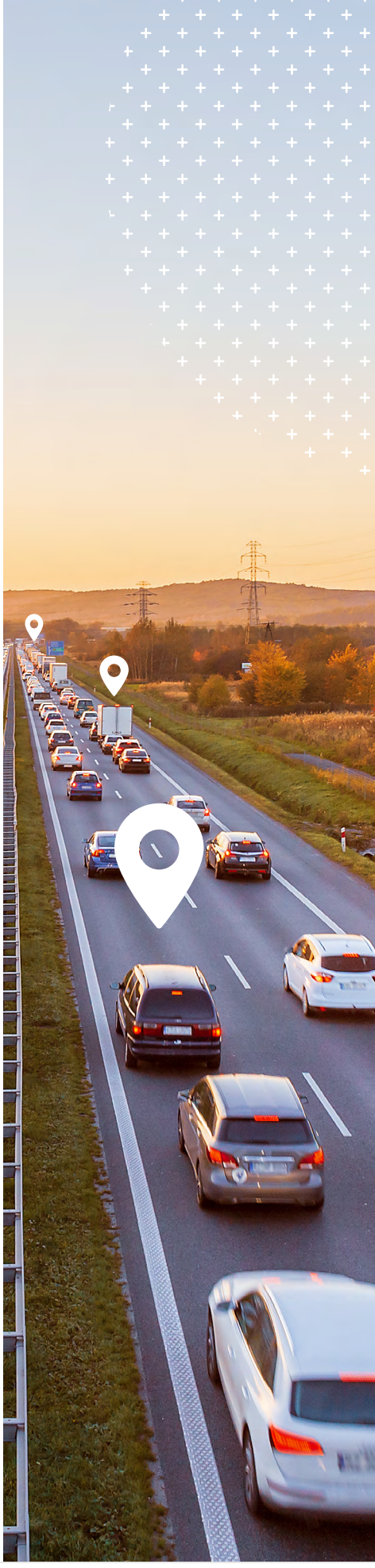
By harnessing sophisticated algorithms designed to process large volumes of real-time data, fleet managers can swiftly detect trends, identify inefficiencies, and optimize their operations. These advanced systems continuously analyze both financial transactions and vehicle performance data, enabling more precise decision-making and operational clarity.

AI for optimizing the user experience

The primary focus of this innovation is to embed intelligence seamlessly into the user experience, automating mundane tasks and presenting insights clearly. This intuitive approach reduces complexity and helps fleet managers effortlessly manage their day-to-day operations without getting bogged down in tedious manual processes.

Ultimately, by automating routine tasks and enhancing data visibility, VanderMeer’s AI allows fleet managers to dedicate more time to addressing critical issues, planning strategically, and making informed decisions. Like the Benefits Assistant AI, this new fleet technology prioritizes seamless scalability, compliance with rigorous privacy standards, and adherence to legal considerations. And it does all of this while also providing confidence and peace of mind to fleet operators.

Additionally, with LLMs, Vandermeer is making the interface more sophisticated, in turn, helping WEX customers. “You should just be able to ask a question, for instance, ‘which drivers are buying premium?’ Then our tool can intercept that question, understand it, and respond with data analytics compiled by AI.”



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AI for simplifying tasks for the customer

The same goes for the simplest of tasks. If a customer enters the interface and wants to add a card, or get a replacement card, the technology will streamline and simplify this process. With multimodal AI, and VIN decoding, the tool makes that process extremely simple. The user messages the AI assistant and gets it done.

The tool's sophistication has exciting implications. When it receives the same question from customers repeatedly, it adapts its pool of responses to include this new question that keeps popping up. As a result, those commonly asked questions become easier for fuel card customers to resolve using chat either in the office or on the road to a job site.

With AI, the customer's information is at the ready, reducing what is required of them when filling out a form online. For many fleet card users who work for themselves or have just a few employees, the CEO, the driver, the CFO, the customer service rep, and the salesperson are all the same person. Many small businesses use fuel cards. Taking complexity out of administrative tasks by incorporating today's LLM technology makes the administrators' job easier.

Transforming the online experience with AI technology

Stroup describes AI at WEX as existing in two different categories, "The first category of how we think about using AI at WEX is in the form of AI assistants. This would be an agent or a generative-AI-enabled chat bot: a tool offering the customer assistance along the way. The other category uses AI to provide personalized advice. This could be embedded into the experience and is just providing guidance as the customer goes through the interface." At WEX, Stroup's team is producing both of these types of scenarios in their product development work.

When building AI tools that provide personalized advice to customers, the question Stroup's team needs to answer is "How do you tee up the right messages to the right customers at the right time to help them optimize their choices?" WEX serves companies of all sizes from very small businesses to exceptionally large organizations as well as government and municipal organizations, so it's vital for Stroup's team to develop tools that can scale up and down depending on the business use case.

"A lot of times people don't know when they're using AI." Stroup says. Take the example of logging into your Netflix or Amazon account and making selections about what movie or show you're going to watch. These experiences are powered by AI, and most people don't conceive of that when they're interacting with their Amazon account. At the same time, customers really appreciate the outcomes resulting from AI implementation in an interface. "What people are concerned about is not so much whether it was AI or not but if they feel confident in the decision they made while using your product or service." Stroup says. "AI can help us ease those decisions for customers and provide the data customers need to make those decisions in a more confident and best-facilitated manner."

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Easing the burden for call center staff so that customers get what they're looking for faster and easier

We've all experienced the deepening pain of being passed from one call center representative to another. What's really frustrating is when each person you speak to asks you to repeat account information to verify who you are. With AI that process can be streamlined and not only will the pass-offs be minimized, but ideally you'll only be asked once who you are and why you're calling. Not only that, but many issues that you might have called the call center for in the past will now be solved through the AI in your app and in the self-service entities that fleet card companies are developing and implementing using LLMs and generative AI.

For Stroup, the efficiencies that AI makes possible are about taking out what many perceive as the mundane parts of a job to open up space for more interesting and creative work. Here she talks about what that means for call center work: "Working in a call center has to be one of the hardest jobs there is. People are worried about AI taking their job away but I actually think about it in the opposite way: AI can make your job better. It takes out the mundane, stressful parts of a job that cause friction and take up a lot of time to create better experiences and make you better at your job. We hear that from our own employees when we are empowering them with the right data to do their job better."

How AI can improve employee performance and engagement

Within WEX, there has been marked improvement for employees using LLM tools Stroup's team developed. The improvements have been noted in both customer experience and in the ease and efficiency of WEX's call center work. "Statistically, we know that we are answering customer questions with more accuracy. The opportunity we've discovered is that it's not just about the data, it's about the customer experience."

Part of what Stroup's team has been tasked with is training call center staff on the new technology. This isn't your chat bot of old. LLMs allow for a superior experience that far exceeds what the chat bots that have been kicking around for the last decade have provided. "The greater ubiquity of LLM chat experiences in the marketplace the more the perception will change and improve, but we are also working proactively to change perceptions now, at the early stage of the journey."



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How AI can transform the way you run your business

Stroup leads her team with three bold goals for the company:

1. To drive productivity.
2. To reimagine experiences with AI top of mind.
3. To educate all of WEX's employees.

Developing an AI-driven company starts with creating goals around your desire. Stroup put a stake in the ground at WEX that AI would change the way the company operates and for all 6,500 employees to lean into it and figure it out. "We made a lot more progress by having those goals in place. It created a level of accountability."

Implementing AI in your organization requires habit change. "We are all creatures of habit. If you say 'I'm going to drink water and exercise every day' they say it takes three weeks to create a habit. That's what we challenged ourselves to do."

Stroup started with her colleagues on the executive leadership team at WEX and challenged them to create a new habit whereby three times a day they would use some kind of AI.

Stroup gives two examples of how she introduced that new habit structure in her own life. She used AI to help her craft interview questions for an upcoming interview and she used AI to map out ways she could get more productivity from her product marketing team. What she discovered with that second use case was that in addition to using AI in her daily work she could also use it to drive transformation. The tool mapped out how each member of her team could use AI to be more effective in their work.



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The path forward with AI and why we all need to dive in now

“Right now there’s a stat that says men are using gen AI tools 20% more than women. A fascinating statistic that we can do something about.” Stroup goes on to say that she thinks in four or five years this is going to be how people work and solving for that gender gap now, while AI is still in its infancy, is crucial. It requires a different way of thinking and the skill of prompting the tool to unlock the questions that it will best answer for the user requires a certain kind of creativity.

“AI feels like an intimidating topic. Even when you talk about things like prompt engineering, it sounds intimidating. But it’s not engineering. It’s what we already do every day in our work.” She advises AI leaders within companies trying to drive change for their organizations to make AI approachable and fun. She also recommends creating a call to action for the technological and cultural shift of adopting AI into your business operations. “A lot of people worry that AI is going to take their job, but the reality is that it’s more likely going to be someone who uses AI well that is going to take your job.” Learn how to use the tool, and you can accelerate your career.

Storytelling and using real world examples relevant to each unique audience will help you make your case to the business in which you work that AI is good for business. Tell stories of someone in your company who has used AI to save the company money, for example. Additionally Stroup recommends the “hands on keyboard” method of change management. Instead of talking about the new tool, get people working within it when you train them. At the end of Stroup’s team’s AI training they ask for a commitment from employees about how they will start to use AI in their work.



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Conclusion: AI as the future of fleet product design

The integration of artificial intelligence in fleet product design is no longer a futuristic concept—it is a present-day reality. AI-powered innovations are reshaping telematics, fleet management, and the customer experience, enabling organizations to enhance efficiency, reduce costs, and drive strategic decision-making.

At WEX, AI is embedded into product development to deliver smarter, more intuitive solutions that meet the evolving needs of fleet operators. From AI-driven fraud detection to intelligent data analytics tools like ClearView, WEX is leveraging AI to streamline operations and improve customer experiences. Under the leadership of industry experts like Karen Stroup and Daniel VanderMeer, AI is used to reimagine digital experiences, empower customers with actionable insights, and make operations more efficient across WEX's product portfolio.

As AI continues to advance, businesses that embrace these innovations will gain a competitive edge. The ability to leverage AI for predictive analytics, real-time decision-making, and automation will define the next era of fleet management. Organizations that integrate AI into their core business processes now will be better positioned to navigate industry disruptions and capitalize on new opportunities.

AI is not just a technological shift—it is a transformational force that is redefining how the fleet industry operates. Now is the time for businesses to adopt AI-driven strategies and position themselves at the forefront of this era of change.

As Stroup sees it, AI will continue to transform WEX's product development space and she and her team will continue to encourage innovation and creativity.



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All fleet cards are not the same, and different types of fuel cards suit the needs of different kinds and sizes of businesses. View WEX's **fleet card comparison chart** to see which fleet fuel card is right for you.

WEX speaks the language of small business operators. Whether you're looking to **modernize your insight and reporting efforts**, save on fuel costs or take advantage of the latest **GPS tracking technologies**, WEX offers solutions to simplify the business of running a business. To learn more about **WEX, a dynamic and nimble global organization**, please **visit our About WEX page**.

Learn more on how to better manage your small business:

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BloombergNEF
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Deloitte
World Economic Forum
Geotab
Volvo Group
Automotive News
International Renewable Energy Agency (IRENA)
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