

The Use of Artificial Intelligence to Accelerate Small and Medium Sized Business Customer Journey Development

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ABSTRACT

In this case study, we explore the use of artificial intelligence (AI) to assist small and medium sized businesses in more fully automating their customer journey process. More fully detailed is how an American medium-sized business used AI to comb through their various marketing data, shift their target marketing strategy, and help create a more structured funnel to help the firm identify opportunities and close gaps in their customer relationship process. This process led to immediate gains and greater, more fruitful interactions with customers as they proceeded from product identification all the way to sales closure and support after the sale.

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INTRODUCTION

Background

2023 will be known as the “Year of ChatGPT”, or more generally, the year that generative artificial intelligence (GAI) became widely available for general purpose usage to the public. This is of course true in the areas of focus for this case study: the sales, marketing, and customer journey process (Kshreti et al. 2023, He and Zhang 2023, Moser et al. 2023), as predicted by Perino (2023). For example, Jia’s (2023) experiment showed how AI assistance in the sales lead process increases the employees’ creativity during the customer interaction process, which was further shown to increase sales.

By the end of 2023, dozens of new tools came into the market to accelerate marketing and sales efforts, specifically addressing:

- Prospect research & list building
- Data analysis & predictive modeling
- Marketing automation
- Multi-channel & social media marketing placement & scheduling
- Search engine optimization (SEO)
- Chat
- Content development
- Creative & design
- Customer relationship management (CRM)
- Event & meeting automation
- Document & notetaking automation

However, this new technology is not simply a plug-and-play that one can purchase off the shelf at Best Buy and use as one-size-fits-all. Dwivedi et al. (2023) performed experiments to show that the customer purchase journey is not enhanced simply by throwing GAI and chatbots at the problem. Careful design of customer-facing GAI is necessary to gain the trust of the customer, and the researchers specifically identified warmth as a feature which will increase the engagement and positivity in interactions with the customer.

Soni (2023) chose to focus specifically on the small and medium sized business in his research. His study showed that GAI works well in these businesses, but that the firm must have well-educated human capital to more directly take advantage of the opportunities provided by GAI. Here is where we aim to build upon the literature and demonstrate more fully the GAI-Powered Case Study in a small company environment. We will explore the benefits, barriers, and results of implementing artificial intelligence (AI) and automation throughout the customer journey.

Organizational Background

In November 2023, a specialty construction firm (SCF) in the Mountain West wanted to bring a more data-driven approach to its marketing and sales strategy. The firm had historically generated \$3-5M per year through 12-20 installation contracts. In 2022 it had begun shifting its business model from selling its high-quality, safety-conscious athletic fields to entrepreneurs and backyard enthusiasts to focus on relationships with social enterprises like YMCAs, Jewish Community Centers (JCCs), camps, and Boys & Girls Clubs. They saw untapped potential to help social enterprises drive membership, program revenue, community engagement, and sustainability.

SCF was entering its second decade in operation, offered a unique patented product, and had begun the shift from business-to-consumer (B2C) to business-to-business (B2B) marketing organically in late 2022 and through 2023, with promising early results. They had expanded product offerings over the years, from outdoor fields focused on a single sport to outdoor and indoor fields that facilitated all-day programming with sports from pickleball to soccer to volleyball. They were a small team looking for smart technology implementation to help fill the gaps and reduce customer friction and advance these larger, long sales-cycle deals more quickly.

CASE DESCRIPTION

Business Challenge

The company faced four clear challenges.

- Despite a shift in messaging and adding a second website to their marketing mix, advertising and promotion efforts continued to attract a disproportionate volume of dreamers and entrepreneurs who often lacked the business savvy, land, and capital to turn dreams to reality.
- While several YMCAs had successfully installed their fields for membership growth, the large decision-making committee, associated fundraising campaigns, and slower pace of business of some non-profit clients left them with a stagnating pipeline, and each deal required many more touches to get to close.
- The company wanted to maintain its B2C entrepreneur pipeline and lean into deep relationship and credibility building with the social enterprise customer segment, but had both budget and staffing constraints.
- With a team of 20 including their installers in the field, they did not have an internal marketing or tech leader to conceptualize, prioritize, and project manage this significant strategy shift.

SCF saw AI and automation as cost-effective, fast-to-market components of the solution to these business problems and engaged RevOppAI for outside expertise. The following objectives were identified for a multi-sprint 90-day engagement.

- Reposition the company as the solution for membership, engagement, & program growth for social enterprises.
- Clearly define the social enterprise customer segment and increase engagement at all stages of the sales funnel, especially mid-funnel.
- Shorten a long sales cycle by leveraging peer to peer testimonial & success stories.
- Implement AI tools and systems that would position a junior marketing hire and the existing sales team for success post-engagement.

While enthusiastic about AI adoption, the team did not have an established AI Use Policy. They valued keeping proprietary data and trade secrets confidential, so had only brought one AI tool in house so far and limited their use of free tools like ChatGPT.

AI Implementation

Phase I: Customer Segment Assessment

RevOppAI first conducted an in-depth marketing and sales analysis of existing marketing channels and the team's CRM. AI brought efficiency to the process. A team without full-time developers, RevOppAI cut the time required for exploratory data analysis and predictive analytics by 60% using DeepNote, a

language-based data notebook tool for teams. Visual representations like the logarithmic lead source bar chart and scatter plot of sales gestation below helped drive home for a busy, boots-on-the-ground focused team how their strategy shift was impacting cash flow, deal size and sales cycles. It also demonstrated the importance of automation and AI in tracking marketing and sales data accurately so SCF could effectively tell their story to investors, business partners, and ownership.

While SCF had significant lead volume, its focus on prospect research and outbound marketing strategies was best represented logarithmically in Figure 1. This representation was recommended by DeepNote’s AI.

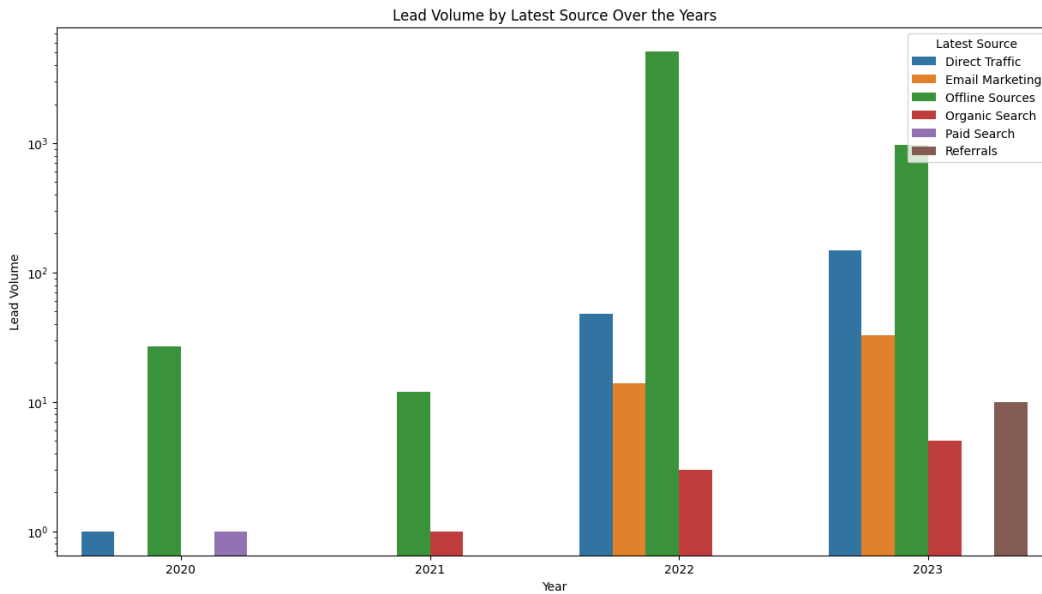


Figure 1. Lead Volume by Latest Source, All Segments

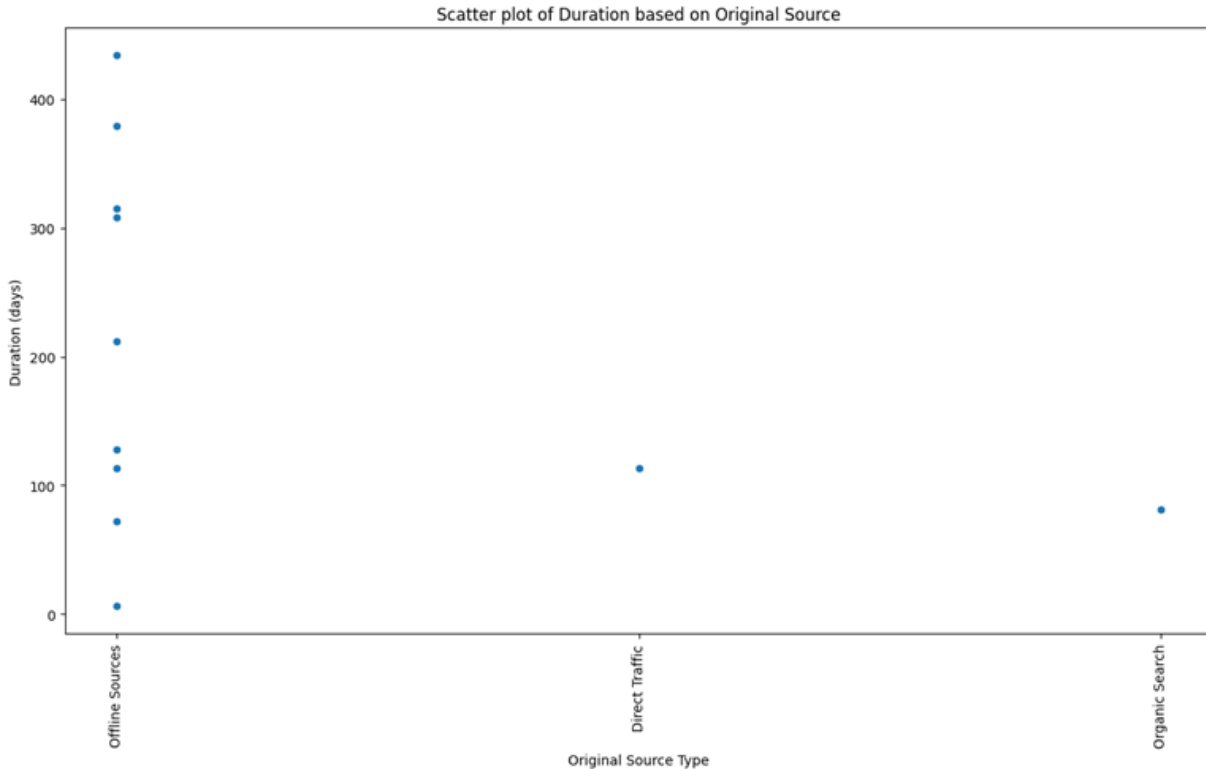


Figure 2. Days Deal Established to Closed Contract by Original Source

As you can see, Figure 2 is not the best way to visually represent the sales cycle. As with many current generation AI applications, further prompt engineering is needed to generate better data visualization, readability, and labeling.

With fewer than a dozen completed social enterprise projects and a handful of data points tracked on deals through the sales process, RevOppAI lacked big data for a robust analysis or predictive analytics on the specific customer segment. Knime, an open source visual programming tool, was also tested for regression analysis and decision trees, reinforcing the research conclusions.

RevOppAI was able to identify key distinctions for the social enterprise segment.

- Most were engaged through outbound or event marketing.
- Closed contracts were more than twice as large for social enterprises.
- Current deals not yet closed were even larger due to new bundling of additional installation and add-on services.
- Sales cycle skewed much longer, nearly three times the average for B2C customers.

Immediately actionable recommendations were delivered on new CRM workflows and integrations to quickly begin capturing data that would contribute to future predictive models. With the larger deal size and longer sales cycle, predictive analytics would become a critical tool for effective cashflow management. An effective customer journey also took on more importance, as loss of a single deal could blow the year's revenue targets, impact procurement, and idle install crews.

Phase II: AI Use Case Identification

Next, RevOppAI systematically helped the team identify AI use cases. Through the initial data assessment, onsite customer journey development, weekly team Level 10 meetings, and individual team member interviews, RevOppAI and the team identified tasks that were repetitive, rule-based, or consumed 15% or more of a team member's time. Those tasks were then evaluated for their ability to improve company return on investment (ROI) using a framework that placed efficiency and productivity as the foundation to free team members up for more creative and customer-focused work.

The visualization in Figure 3 is used with teams early in AI implementation to illustrate the foundational nature of using AI and automation to address repetitive, high-volume tasks that can drive operational efficiency and productivity. These early implementations ignite trust in automation, demonstrate ROI, and establish building blocks for later AI implementations addressing more complex and nuanced customer trust and team creativity use cases.

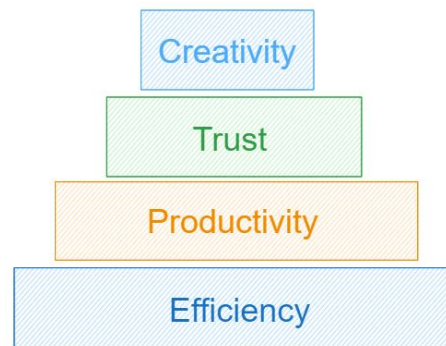


Figure 3. Framework for Prioritizing AI Use Case Implementation

An Ecosystem Approach

With limited budgets, staffing, and no onsite information technology (IT) leader or system admin, identifying local champions and building on existing system knowledge and capabilities were critical. For businesses as large as 2500 employees, this ecosystem thinking is essential. RevOppAI finds the smaller the enterprise, the more heavily weighted the lift for training, adoption, system maintenance, and ROI should be in the implementation plan.

Thus, SCF and RevOppAI prioritized 12 narrow use cases for a planned year-long implementation process. RevOppAI identified a combination of automation & AI solutions that leveraged 4 existing software tools and 4 additional software subscriptions at an additional cost of under \$600/month. Ultimately, the team selected 4 use cases to implement during the first 90 days. All leveraged AI assistant capabilities recently added to existing software subscriptions, adding minimal additional cost.

Where a simple, elegant, and transparent automation solution like a workflow was available for rule-based efficiency automations, this won out over AI for several reasons:

- Fewer points of failure when data is not being transformed from another modality to language to vectors and back again
- Visible, transparent and understandable for the team
- Requires less compute resources and expertise to maintain and manage

As noted in the example use cases in Table 1, each implementation leveraged multi-modal AI, employing at least two of the following AI solutions: coding, large language models (LLM), data processing, and image creation.

AI Use Case	Application	Example Uses in the Case
Customer Journey & Email/SMS marketing automation	Hubspot: Chatspot, Workflows	Chatspot LLM assistant built reports and accelerated support & implementation
	ChatGPT, Bard, Claude	Code validation, content revisions, A/B subject line options
Full visibility marketing stack performance dashboarding	Hubspot: Chatspot Google Console/Ads/G4 LinkedIn Meta YouTube Zapier X (Formerly Twitter)	Hubspot environment already benefited from a variety of integrations including Zapier and web forms. AI integrations without need for APIs accelerated data flow from social & search, quickly building lookalike audiences across channels
	ChatGPT	Code validation
Social Version & Post Automation	Canva AI	Accelerate versioning designs, image and template recommendations, copy recommendations, social scheduling from one platform
	Meta/Instagram AI	Organic & ad copy, social posting optimization
SEO/Keyword strategy development & implementation	Google Console/Ads AI SEM Rush SEOSiteCheck ChatGPT, Bard, Perplexity	Research, competitor research, technical audits, content development
	Chat GPT, DeepNote	Data classification, wrangling, and formatting
	Google Tag/Ads ChatGPT	UTM codes, pixels, code snippets

Table 1. AI Use Case Implementations

For smaller teams, AI lowers barriers to specialized knowledge like coding and data pre-processing for generalists executing a wide range of job functions. It also puts control at a smaller scale in the hands of owners and employees, reducing reliance and expense for outside marketing agencies and contractors. With proper training and implementation support, AI shows great potential to build internal capacity and talent in small businesses and smaller functional teams.

CONCLUSIONS

Business Impact

At the time of this submission, the AI solutions have been deployed for less than 60 days. Some measures of success, like staff time savings, are still under development. However, even at this early stage there is measurable ROI:

Enhanced Customer Engagement and Satisfaction

Through the introduction of AI solutions, SCF experienced a marked increase in the quality and quantity of prospect & customers interactions, which we expect to lead to higher deal closing and satisfaction over time.

- Year-over-year (YOY) existing website visits up 21%
- Increased traffic to lead conversion nearly 10%
- Social interactions increased ten-fold leveraging lookalike social audiences
- New website ramped up to 150 visits per week within 30 days without paid advertising
- Safe email sender score improved

The Hubspot report shown in Figure 4 is one of several on a dashboard drafted by ChatspotAI and customized to the business goals. It has put actionable data at the fingertips of team members in the field and company ownership.

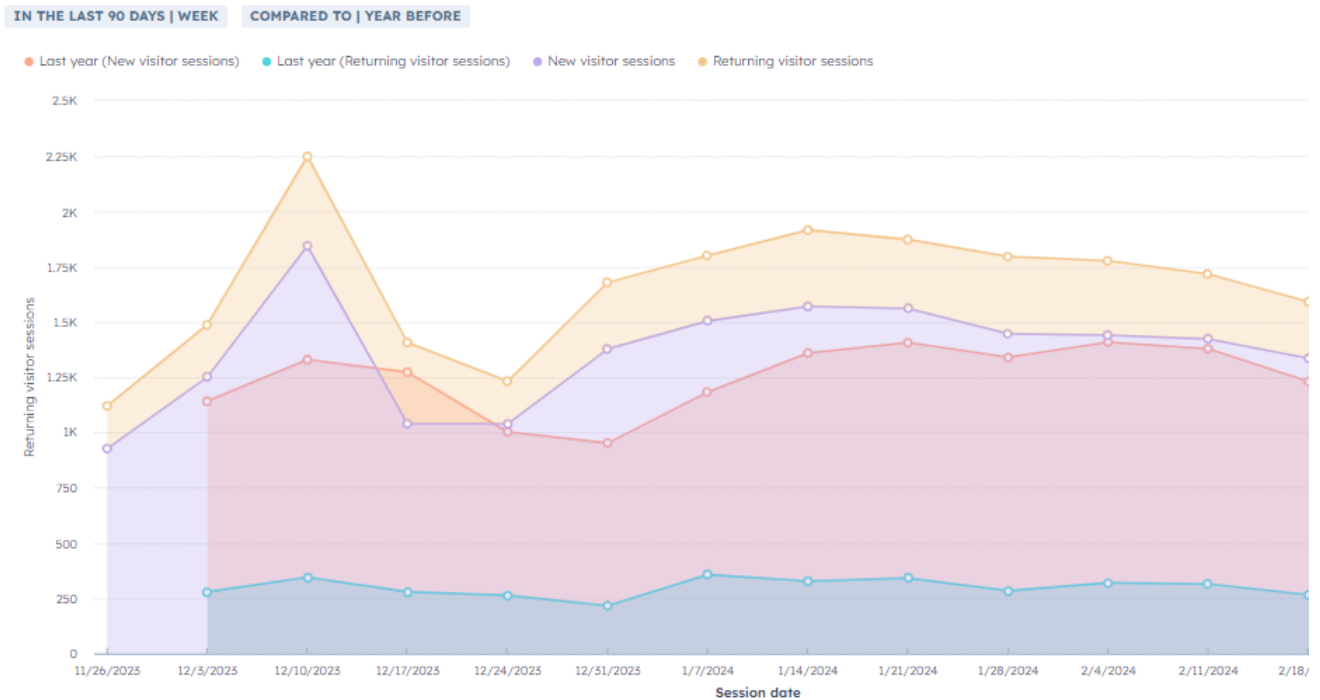


Figure 4. YOY New & Returning Website Traffic

Resource Allocation Optimization & Improved Productivity

AI and customer journey automation has enabled SCF to allocate its resources more efficiently, ensuring that every investment contributes directly to its goals.

- Sales staff spend more time meeting & connecting with prospects
- Email & text volume to the social enterprise segment is up 480% with higher deliverability, lower opt-out, and minimal decrease in click-through rate.

Boost in Marketing ROI

By leveraging AI for a targeted customer journey and consistent social presence, SCF decreased ad spend and enhanced the return on investment for its marketing efforts.

Challenges & Insights

Decision-Making Time

The process for decision-makers to consider, budget, and plan for AI implementation took considerable time. We initially attempted to fold this into a weekly sales and marketing meeting, but with the education needed found that was not adequate time to educate and field questions and recommendations for implementation development. We recommend any AI work group set aside at least 90 minutes each week to plan and review solutions in process.

However, small decision-making committees and the entrepreneurial mindset of smaller businesses presents a limited-time advantage in speed of adoption compared to larger organizations that will develop a full ecosystem AI implementation strategy before adoption. This potential competitive advantage is likely to dissipate through 2024 and 2025 as larger companies implement Chief AI officers, vice presidents of AI, and consulting efforts to further implementation.

Overcoming Skepticism

Overcoming the "we've always done it this way" mindset presents challenges even with early adopters. Provide as much solution transparency as possible, demonstrate, and measure time savings and increased productivity. Focus on small early wins that address real pain points in the team and create peer to peer learning to spread trust.

Tolerance for Error

The sales team and RevOppAI tested various prospect research tools including Clearbit, Zoominfo, and Hunterio, but eventually reverted to more traditional outbound prospect research methods due to the perceived lack of value against the subscription costs. Though an AI solution would have sped up full customer journey implementation by more than 30 days, SCF felt customer interactions were too precious to risk even a small percentage inaccuracy in the data.

Staff Monitoring, Maintenance, and Internal Advocacy

Ultimately, the determination was made not to add the junior marketer to the team. This created a gap in both knowledge transfer and future capacity building for the team to continue to build out AI-driven solutions and automation. While reporting and workflow alerts were also automated, adding automation layers brings on added responsibility for troubleshooting, tracking performance, and ROI on these tools. Teams will get the most out of AI solutions and automation efforts with ongoing monitoring, user feedback, iterative improvement, and ongoing usage training. AI implementation planning must not only consider work efficiencies gained and off-boarding of day-to-day responsibilities through automation, but also clearly define the ongoing responsibility for oversight.

Lessons Learned

Simplicity Over Complexity

It's crucial not to complicate processes unnecessarily. Where simpler, more transparent solutions exist, they should be prioritized.

Training and Processes

Providing replicable training tools and process guides, such as short demonstration videos (we used Loom, whose AI titles, transcripts, and removes filler words) and step-by-step guides, is essential to facilitate ongoing adoption and maximize the benefits of AI solutions.

ROI Measures

As new adopters of AI, the team struggled to clearly identify realistic productivity and efficiency goals. Future engagements will include a time study in the initial assessment phase to better prioritize use case implementation and measure these gains post-implementation.

DISCUSSION

The Future of AI for Small & Mid-Sized Businesses

AI tools continue to increase in affordability for businesses of all sizes. For example, Microsoft in early 2024 dropped their 300-seat minimum for CoPilot in their 365 line of software products. Emerging off-the-shelf solutions allow small- and mid-sized businesses to cost-effectively customize while protecting proprietary data. Popular small-business use cases include:

- Data analysis, predictive modeling & dashboarding of key business metrics made easily available to those not licensed for more expensive systems like Salesforce
- Customer “GPTs” and portals for self-service, training, and education
- For organizations with a higher service request volume, either within a chat or ticketing system, classification and response prompts that can improve response time, resolution, and customer satisfaction

Future use cases identified by SCF and RevOppAI include development of

- Customized, confidential LLM knowledgebase (i.e. ChatGPT Plus Teams) to be used across departments for team member on-boarding and training, chatbot service and sales inquiries, and content writing.
- Sales presentation & proposal versioning

In our quickly evolving technological environment, we look forward to generative AI moving from research to completing multi-step actions. This can help organizations like this one quickly take a new product to market, from spinning up a new website or landing page with promotional content, plugging together social, search, and analytics platforms, adapting search strategies to an emerging LLM-based research and search environment, and creating truly personalized customer journeys that allow customers to feel and even greater sense of control over the shopping experience.

While compute power and ownership of large data stores continue to be an advantage for large companies implementing AI, expanding access to pre-packaged subscription tools is helping to level the playing field for smaller organizations like SCF. Small- and mid-sized businesses (SMBs), however, bring the advantage of an entrepreneurial mindset that can drive fast adoption and implementation.

Future Research

In the years after this publication, there will be many more case studies as well as basic research. While we will discover many ways to improve the process of GAI integration into the enterprise, we will probably discover many more ways that these go wrong. While both are valuable, in this case we propose research into more fully automating the SMB customer journey for companies, perhaps even moving towards the fully automated journey as a service, or GAI-as-a-service (GAIaaS). Additionally, confidence levels and performance of predictive models developed with AI will be important with the lack of transparency of these models.

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