



**How SoterGenius
Will Forever
Change the Way
We Manage Risk**

Executive Summary

Artificial intelligence is a multi-billion dollar industry with projections of it becoming valued at over \$1.8T by 2030. AI now impacts every facet of our lives and is transforming the way we do business. According to the [World Economic Forum](#), 82% of executives have already deployed AI or will in 2024. From transportation to health care to manufacturing, AI has a multitude of use cases and has proven to be effective at creating efficiencies.

AI's power can be used to quickly analyse large amounts of data to detect hazards, trends, and predict where an organization faces risk. In the realm of safety and risk management, the prevention of injuries is paramount. Focusing on injury prevention and regulatory compliance is essential for all businesses to ensure a safe working environment and to avoid legal and financial repercussions.

AI is reshaping safety and risk management by enhancing efficiency and improving injury prevention strategies. Soter has been at the forefront of the AI revolution since first introducing their wearable technology in 2017 and now launching SoterGenius, the world's first comprehensive safety tool designed to aid in regulatory compliance, hazard identification and mitigation, risk assessments, and generating solutions to solve safety-related problems.

Introduction

Traditional safety and risk management paradigms have undergone significant changes over the past few decades, driven by advancements in technology, regulatory changes, and evolving organizational cultures.

One notable change is the shift from reactive to proactive risk assessment methods, focusing on identifying and mitigating risks before they lead to incidents. Historically, assessments required a person to physically conduct an audit, relying on their ability to identify hazards. This approach is limited by the constraints of time, location, and the auditor's experience and access to information. With advancements in technology, video and AI can be leveraged to accomplish more with less effort and time.

This paper seeks to demonstrate that implementing SoterGenius will enhance efficiency, improve accuracy of hazard identification, and result in productivity gains. This AI tool will change the way safety professionals and risk consultants manage risk for good.

Meeting Today's Challenges

Safety and risk professionals are responsible for a multitude of tasks including creating and reviewing safety plans, managing incidents and associated reporting, maintaining company and government compliance, preventing workplace hazards, analyzing safety data, conducting inspections, preparing and delivering training and the list goes on. Much of this work requires significant time commitments and can keep the safety or risk professional confined to their desk. How can one make an impact on safety culture and get employees engaged if their time is taken by tasks that necessitate hours behind a computer?

The rapid evolution of technology, particularly Artificial Intelligence (AI), has introduced groundbreaking solutions to address the multifaceted challenges in this domain. Generative AI, a subset of AI that can produce human-like content, has emerged as a pivotal tool in enhancing workplace safety.

By providing safety professionals with detailed, up-to-date information, AI enhances their ability to advocate for essential safety interventions and maintain a culture of continuous improvement.

SoterGenius is a revolutionary tool that will augment and streamline the safety workflow allowing safety and more time on preventative strategies and building rapport with workers.

AI Integrated into the Risk Management Process

SoterGenius is an advanced AI platform designed to provide instant health and safety-related answers, automate compliance checks against [OSHA standards](#), identify and correct workplace safety errors through image and video analysis, resolve workstation hazards, perform industry research, and generate custom safety materials.

With an extensive dataset of over 20 million data points, it has the context of every single standard, regulation, violation, and inspection that has ever been documented. It uses this knowledge to holistically analyze documents, images, videos, and questions to provide quick and accurate responses to a wide range of health and safety concerns, covering various scenarios and compliance requirements.

SoterGenius is a valuable resource to quickly identify hazards, assess risk, investigate the existing condition and possible countermeasures, and evaluate the effectiveness of control measures. From portfolio and organizational insights and analytics to predictive risk monitoring, become a more valued risk management partner by not only reducing losses but also suggesting strategies for productivity improvements

The Benefits of Using SoterGenius

1. Instant Hazard and Standard Violation Detection

- a. Traditional methods of hazard identification and compliance verification can take hours or even days. Risk consultants manually sift through extensive documentation and conduct detailed on-site inspections to ensure compliance with OSHA standards. SoterGenius drastically reduces this time by providing instant responses to health and safety queries.
- b. The platform's EHS Q&A Assistant and automated compliance checks offer immediate answers and reviews, ensuring that hazards and violations are identified within seconds, automating compliance checks, and identifying workplace safety errors through sophisticated image analysis. This not only saves valuable time but also allows consultants to focus on more strategic tasks.

2. Elimination of Subjectivity

- a. Human error and subjectivity can often cloud hazard analysis. Consultants might overlook certain hazards due to familiarity or lack of expertise in specific areas. SoterGenius addresses this by providing an objective, third-party perspective on safety and compliance.
- b. The Workplace Inspection Tool serves as an unbiased eye, identifying hazards based on a comprehensive dataset of over 20 million data points related to standards, regulations, violations, and inspections.
- c. With an accuracy rate of 96%-99% when compared to OSHA standards, SoterGenius ensures that no potential hazard goes unnoticed.

3. Accuracy in Identifying Hazards

- a. Every consultant has their own areas of expertise, which can sometimes lead to gaps in hazard identification. SoterGenius leverages its extensive database to provide thorough analysis across all areas of workplace safety, reducing a consultant's potential errors or omissions.
- b. The Industry Surveillance Tool conducts in-depth research on industry-specific hazards and best practices, helping consultants stay informed and proactive.
- c. The Documentation Generator creates tailored safety materials, ensuring that all training and guidelines are relevant and up-to-date.
- d. Real-World Application
 - i. A risk consultant specializing in chemical safety might miss ergonomic hazards in a workstation setup. SoterGenius can analyze the workstation setup through images and suggest ergonomic adjustments to prevent injuries. This ensures a holistic approach to safety, covering all potential hazards.

4. Efficiency

- a. Decrease the time of an audit by 45%
 - i. Automate the regulatory search and eliminate time required to find specific regulation violation
 - ii. Reduce time organizing photos and videos
 - iii. Reduce time identifying solutions by having SoterGenius source vendors, costs, and countermeasures across the hierarchy of controls
- b. Serve 30% more clients
 - i. Through an optimized audit process, generating reports will take less time allowing access to more clients
 - ii. Gain recognition in the industry as a leader leveraging cutting-edge technology
- c. Reduce the cost of travel & accommodation
- d. SoterGenius can be customized to include a knowledge for company-specific policies and standards thereby eliminating the need to cross-reference government and organization compliance
- e. Reduce costs through leveraging AI for the regulatory reference search and solution ideation. SoterGenius can automate these tasks and serve as a full-circle platform from identifying hazards, to assessing risk, to generating solutions, vendors, and estimated costs for implementation of solutions.
 - i. Consider a scenario where a risk consultant needs to evaluate a manufacturing facility for OSHA compliance. Traditionally, this would involve extensive manual inspection, collection of data, and documentation review, taking several days.
 - ii. With SoterGenius, the consultant can upload images of the facility, receive instant feedback on potential violations, and access detailed reports on required corrective actions within minutes. This efficiency not only saves time but also allows consultants to handle more clients and tasks, increasing their productivity.

5. Focus on Prevention

- a. By reducing the time spent on compliance and manual checks, consultants can focus on developing proactive strategies aimed at preventing injuries and incidents.
- b. With instant answers and automated compliance checks, consultants can dedicate more time to strategic planning and implementing preventative measures.
- c. The Industry Surveillance Tool helps consultants learn from the mistakes of others in their industry, fostering a culture of continuous improvement.

6. Streamlined Operations

- a. SoterGenius significantly boosts productivity by streamlining various aspects of a consultant's or safety person's workflow.
- b. Instant health and safety answers, automated compliance checks, and rapid document analysis save considerable time, allowing consultants to handle more tasks efficiently.
- c. Accurate hazard identification and objective analysis reduce the need for rework and improve overall safety outcomes.

7. Revenue Gains

- i. Additional revenue generated from the AI tools with new value added service offerings
- ii. By automating routine tasks and providing precise hazard analysis, consultants can serve more clients, offer more value, and generate more revenue.
- iii. SoterGenius offers the unique opportunity for safety and operations staff to analyze videos for productivity improvements within workstations

8. Strategic Impact

- a. SoterGenius will automate and speed up the compliance check process, allowing safety and risk professionals to focus on implementing more proactive, high impact strategies. This shift towards proactive management not only improves safety outcomes but also enhances the consultant's value to clients.
- b. SoterGenius enhances customer response times by delivering instant answers to inquiries.
- c. The personalized approach strengthens relationships and creates unique experiences for customers.
- d. Utilizing and visualizing AI with SoterGenius positions the end-user as a pioneering leader in the industry.

Real-World Application: Manufacturing Client

- 1600 employees
- 1,000,000 facility
- TRIR of 9.2 (industry norm is 3.4)
- Average of 3 OSHA inspections per year
 - Causes major disruption to safety managers workload
 - Forces other work and projects to be delayed
 - Direct and indirect costs are over \$600,000 annually
- Dozens of safety issues reported monthly
- Lack of trust between employees and management

The consultant was able to audit the facility in one day using SoterGenius. Images and videos were analyzed producing a report containing violations, standard references, and potential solutions within seconds for each image analyzed.

The fast compliance-related portion of the audit allowed the consultant to focus on a deeper, more fundamental issue: the safety culture at the organization.

Days after completing the physical audit and having conducted a culture-based survey, the consultant was able to facilitate problem-solving safety culture workshops with multiple teams of employees and managers.

The results of the workshops outlined plans for the next 30-60-90 days with the ultimate goal of improving relationships and fostering a more proactive and caring work environment.

Conclusion

SoterGenius empowers consultants to deliver superior safety outcomes at a fraction of the time and cost. As the industry continues to evolve, embracing advanced AI solutions like SoterGenius will be crucial for staying ahead and ensuring the highest standards of workplace safety and compliance.

The adoption of SoterGenius not only optimizes operational efficiency but also fosters a proactive culture of safety and compliance, making it an indispensable asset for any forward-thinking organization.

- Streamline your audit workflow and decrease audit time by up to 45%
- Quickly identify hazards, cite the regulatory reference, and offer solutions to mitigate the risk of injury
- Conduct multiple assessments at once. Provide more value in your reporting by having SoterGenius analyze images and videos for ergonomic risk, safety violations, productivity improvements, and possible solutions to reduce the risk of injury or incident