

# THE FUTURE OF SECURITY AND SURVEILLANCE

## The Changing Landscape of Security and Surveillance



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Security and surveillance systems have evolved significantly over the years. With the advent of AI and machine learning technologies, these systems are no longer limited to simple, rule-based monitoring activities. Renowned entrepreneur and AI expert Andrew Ng commented on this advancement, stating, "AI is the new electricity". He suggested that just as electricity transformed almost everything 100 years ago, AI is expected to do the same now, and that includes the security and surveillance sector<sup>[1]</sup>.

AI enables advanced detection capabilities, such as weapons detection, abandoned object detection, fire detection, and potential crime detection. This could include anything from arson to vandalism, all detectable in real-time, which was unthinkable with the traditional systems. The ability



## Introduction

As we march steadily forward into a new age of technology, the sophistication of surveillance and security systems continue to impress, proving themselves to be invaluable tools for businesses, institutions, and government bodies. By the end of 2021, the global surveillance camera market is expected to reach \$44 billion, a 21.9% increase compared to 2018<sup>[1]</sup>. An increasing emphasis on public safety and security, combined with advancements in artificial intelligence (AI), is propelling the growth of the surveillance and security industry.





## The Importance of Sentinel and Similar Products

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Sentinel, an AI-assisted video surveillance technology, exemplifies the future of the security and surveillance industry. It provides a comprehensive suite of tools for object detection, action detection, real-time detection capabilities, and more, that enable real-time responses to potential security threats.

According to the American physicist and data scientist, Alex Wissner-Gross, "In a world where the cost of sensing, computation, and actuation continues to plummet, the importance of knowing what to sense, how to compute, and when to act will only increase". Sentinel and similar AI-assisted surveillance tools embody this philosophy<sup>[^3^]</sup>. They intelligently process real-time data to detect anomalies, thereby enhancing decision-making processes and significantly improving security outcomes.

Moreover, Sentinel's sophisticated video search capabilities, business intelligence capabilities, and seamless integration with a variety of video management systems demonstrate its versatility and adaptability.

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## The Role of AI and Machine Learning in the Future of Security and Surveillance

AI is poised to play a pivotal role in shaping the future of security and surveillance. According to Grand View Research, the global AI in the security market is expected to reach \$11.95 billion by 2025, growing at a CAGR of 31.1% from 2020<sup>[4]</sup>.

AI-assisted surveillance systems like Sentinel are setting the trend by leveraging machine learning algorithms to provide precise, real-time alerts and notifications. They transform traditional video surveillance systems from passive tools into proactive detection systems. Moreover, Sentinel's advanced business intelligence tools can generate automated statistical analysis, enabling effortless extraction of operational data from surveillance video. This translates into smarter decision making and resource allocation, driving efficiencies and cost savings.



## Conclusion

In the ever-evolving landscape of security and surveillance, AI is playing an increasingly significant role. As Andrew Ng and Alex Wissner-Gross have pointed out, AI and machine learning are becoming indispensable tools in enhancing our ability to sense, compute, and act in a more intelligent and efficient manner.

Sentinel and similar AI-assisted surveillance systems are leading the charge in this revolution, providing precise, real-time detection, and response capabilities, coupled with advanced analytics. As technology continues to advance, AI's role in security and surveillance will continue to increase.

