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The Complete Guide to Using AI-Powered Video Analytics to Improve Campus Safety and Security

AI-powered video analytics solutions that help campus security and safety professionals build and maintain safe and productive higher-educational institutions for students, faculty and staff

Creating a Safer Environment for Higher-Education Institutions

The last several years have seen a steady rise in on-campus crimes and incidents such as active-shooter situations, theft, vandalism, sexual assault and more. Unsurprisingly, this rise in crime has had a direct impact on college selection and enrollment. In fact, according to the Journal of College Admission, **70%** of parents believed campus safety was critical in deciding a school.

As such, maintaining a high-level standard of safety and security at academic institutions should be a top priority amongst educators and university decision makers. As educational leaders and administrators continue to search for ways of making their academic environments more productive, security teams are proactively seeking solutions to better-protect students, staff and faculty members.

With more students now returning to campus in the post-COVID era, it is becoming increasingly necessary for educators to make their campuses feel safe from potential threats of violence, danger and crime. However, many institutions do not possess the personnel, financial resources or budgetary allocations necessary to properly safeguard their campuses.

For years, universities and campuses have proactively taken many steps to develop safer environments for their students, staff and faculty including: improving crime reporting processes, increasing identification procedures for entering and exiting campuses and implementing proper evacuation processes. However, the new challenges presented in the past several years mean that security teams have much more work to do in order to create learning environments that foster an ongoing sense of safety and security.

One key aspect of any strong security stance is in the use of video analytics, which can help security teams make sense of surveillance content that is being fed to them from across campus. But often, these analytics simply cannot keep pace with the incredibly high volume of video content that is being generated on a regular basis.

The incorporation of AI has significantly improved the video analytics space over the past few years helping to streamline and automate the often overwhelming task of manually reviewing either live or recorded video. But exactly how can AI-powered video analytics improve your physical security infrastructure?

As a starting point, this guide outlines some of the key issues facing educators and physical security administrators and how AI-powered video analytics can help improve their campus safety and security.

Fortifying Key Access Points

One key way by which security leaders can significantly enhance their security stance is by using AI-powered video analytics to monitor and protect key areas of their campus from unauthorized access. For closed campuses that need perimeter security to open campuses that allow regular foot traffic throughout, it is vital to minimize unauthorized individuals from entering off-limits areas, such as dormitories, secure labs, offices, dining halls and more.

Keeping personally identifiable data safe and secure is also a top concern in today's day and age. Whether it is healthcare records at on-campus medical centers, sensitive student financial data or university-exclusive research information, security practitioners should do everything in their power to protect critical student/faculty information and records.

With AI-powered video analytics, intrusion zones can quickly and easily be created, and alerts can be generated when those zones are crossed. Additionally, loitering alerts can protect critical areas from unauthorized access or presence by notifying when a person or vehicle is detected for longer than a specified timeframe. Crowd-size alerts can be set up to be triggered when there are too many or too few individuals detected in a camera's field of view, helping support health and safety initiatives.

Beyond real-time alerting of key access points, AI-powered video analytics can also serve as a powerful tool in post-event investigations, allowing security teams to easily sort through hours and hours of video footage to quickly locate key suspects and build cases that can be shared out as needed. These investigations can prove to be incredibly valuable deterrents for common campus crimes such as vandalism, break-ins and the like.

Improving Student Safety on Campus via Blocklists

Keeping students safe and secure on campus is critical to creating an educational environment in which they can flourish, both personally and academically. However, if students find themselves constantly in fear of

violence, vandalism or other potential threats, they will be unable to thrive and grow as aspiring young adults.

The National Center for Education Statistics reported over **27,300 criminal incidents** on campuses at post-secondary institutions to police and security agencies in 2019. Among the most common forms of crime were forcible sex offenses, burglaries, theft and vandalism. Additionally (and unfortunately), active-shooter situations have also been a growing concern for students, faculty and staff in recent years.

Because students may be vulnerable to both on- and off-campus threats, universities should take the steps necessary to help individuals feel safe and protected at all times. To do so, one key tool is in the establishment of blocklists, in which known individuals can be placed and alerted on when they are present on campus. These individuals can include:

- **Sex offenders or violent criminals:** blocklists can alert security personnel about individuals that may be a threat to students or staff

- **Disgruntled ex-students and/or employees off campus grounds:** keeping blocklists of these types of individuals can provide situational awareness and mitigate potential issues from happening before they become a major threat

Video analytics, when enhanced with AI, can monitor hundreds or thousands of cameras in real time and produce alerts on specific persons of interest. With this information in hand, security staff can then pinpoint and identify potential threats often and early and react more efficiently.

One unique feature of Vintra Fortify is its ability to quickly re-identify an individual over multiple cameras in a privacy-protected fashion, providing security teams a heightened sense of situational awareness as they trace a person of interest's journey across campus – all while protecting personally identifiable information.

In addition, Vintra's Live Re-ID technology features the ability to alert security teams as to the last known position of that person of interest, providing the location of potential threats in real time when it matters most.

The most common crimes at colleges and university campuses include **burglaries (42%)** and **sexual harassment (31%)**. Vintra Fortify can identify persons of interest in a privacy-protected fashion and help security teams quickly mitigate potential safety issues and threats.

Maximizing Safety and Security Resources

The COVID-19 pandemic has had a tremendous impact on the physical security space in recent years, with all types of industries having difficulties in hiring and maintaining trained guard staff. The nation is currently experiencing a profound security-guard shortage and **34%** of security professionals have experienced turnover as a direct result of COVID-19.

Rife with significant turnover, a lack of training and insufficient financial resources, many security teams have become overwhelmingly understaffed, creating new security risks. Security guard teams may be unable to monitor multiple locations and video surveillance cameras concurrently. Today's security leader not only has made every dollar go farther, they need to ensure that their approach to security on their campus does not wane.

Think of Vintra's AI-powered video analytics as a 24x7 guard. One that never sleeps, needs a break, never takes vacation and whose eyes never tire of staring at screen after screen of video content. Vintra makes all video searchable, allowing users to find relevant footage when they have less information and would need to go through hours or days of video.

Vintra Fortify can help force-multiply your efforts using the power of AI technology to streamline and automate key processes and systems, cutting down post-event investigation times by over 80% and freeing up key resources to do more productive work. Instead of relying upon guard staff inefficiently staring at a multitude of computer screens, teams can respond promptly to mitigate safety concerns while saving valuable resources and manpower hours.

As a result, human resources can be better directed – perhaps out showing a physical presence on campus – driving higher levels of safety and security. Additionally, for universities with multiple campuses, Vintra can easily link disparate teams and infrastructures together to act as a single unit and help create a higher level of security situational awareness.
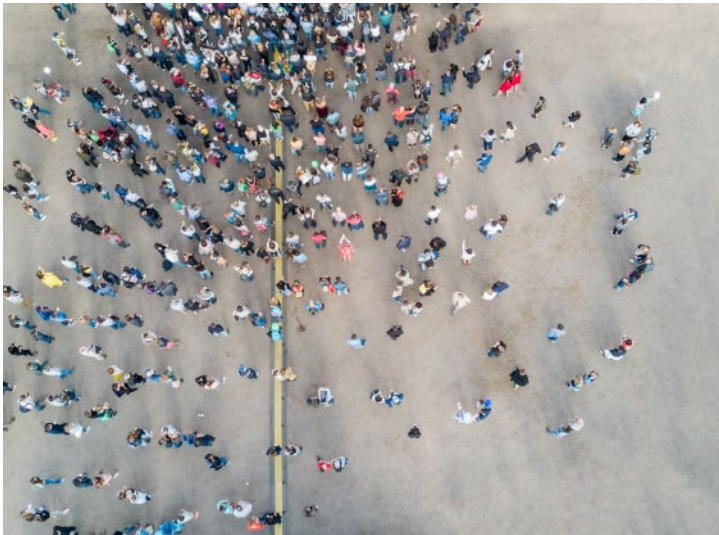
Easily Integratable Technological Solutions

Beyond video surveillance systems, colleges and universities often manage massive conglomerates of systems and security tools including alarm systems, central monitoring stations, mass-notification systems and more. Integrating each of these technologies and solutions into a single cohesive system can often prove difficult for physical security teams. Bringing each of these solutions together in an easily accessible environment is a critical way to help maximize the efficiency of security teams and staff members.

Vintra's AI-powered video technologies can seamlessly integrate various camera networks and technologies into a single easy-to-use system – with no "rip and replace'' required. With an open-API approach that integrates with various Video Management Systems (VMS), Vintra makes what you already have – from your VMS, access control system and even constrained security team – smarter. Vintra has partnered with Genetec and Milestone, leaders in the VMS space, to create a unified security platform solution that provides security professionals with best-in-class video analytics.

For example, security operators can define real-time rules to be alerted on directly inside their VMS – so they don't have to change their workflows to use Vintra – including perimeter intrusion, suspicious activities

such as loitering, crowd formation, or when a known offender is detected on site. All the power of their VMS can be leveraged with procedures starting from a Vintra-generated event.

For post-event investigations, VMS users can quickly get insights about a past situation by easily accessing any recorded footage, uploading that footage into the Vintra platform and determining the when and the where of a given incident.

One additional area in which Vintra Fortify can integrate with other key security aspects is regarding access control, in which the identity of a badgeholder can be verified using AI-powered video analytics. This simple process, in which Vintra Fortify validates each badge swipe by comparing that individual with a reference image on file, can significantly strengthen a campus security infrastructure – not to mention help the university save lost revenue due to shared-badge access to dining halls and the like.

Lastly, one key feature of Vintra Fortify for us is our ability to unlock new use cases using AI-powered video analytics, such as business intelligence. Vintra Fortify provides security leaders with an easy ability to leverage machine learning on their video analytics metadata, resulting in valuable insights regarding such things as building occupancy and usage, student traffic flows, staff safety and so much more.

Vintra BI is a complete solution, delivered as a single module that works seamlessly with Vintra Fortify, that allows data captured by enterprise cameras and a university's VMS to be made valuable by Vintra and then that value extended beyond security to other parts of the organization – such as HR, Operations or Real Estate – via an open API.

Accordingly, the insights provided by Vintra BI can prove extremely valuable from a safety and security standpoint, as these various other teams can have actionable data to help them better understand campus usage during high-traffic events, which may suggest improvements in staffing, signage and event setup.

An Enterprise-grade Solution to Secure All Aspects of Campus

Reportedly over **75%** of all data breaches in the education sector occurred at higher education institutions, and data security is currently considered the **second-largest liability risk** for those institutions. In a world where data breaches and ransomware occurrences have become rampant, the owness is on campus security teams to protect not only their physical campus, but also any data belonging to their students, staff and faculty members.

At Vintra, we understand this well, and know that data security also extends to the tools used by security professionals. Vintra Fortify was designed and built as an enterprise-grade security solution, incorporating

Security Assertion Markup Language (SAML) for single sign-on and secure authentication, features robust password and administrator policies and is third-party penetration tested.

Additionally, the Vintra Fortify platform is 100% auditable, logging user searches and maintaining all pertinent information regarding individual usage to ensure the platform is not being used for malicious or deceitful purposes. Vintra Fortify provides in-depth reports that create an additional level of transparency as part of our best-practices approach.

Lastly, Vintra Fortify can be deployed on-premise or in the cloud – the latter featuring the latest in encryption technologies and compliance controls to ensure that your instance is the most secure, high-performing, resilient and efficient infrastructure for your organization.

Conclusion

The safety of students, faculty and staff should remain a top priority for educational administrators at academic institutions of all sizes. Protecting the welfare of individuals on campus will help to establish a secure environment in which students can flourish both in and out of the classroom.

Vintra Fortify provides a modern-day approach to using video as a key security tool, enabling colleges and universities to use the power of AI to help keep individuals safe on campus, even when financial resources and budgets may be limited.

Security that is smarter, more efficient and using the latest in leading-edge technology – not unlike the students that are thriving in your safe campus environment.

About Vintra

Vintra creates AI-powered video analytics solutions that transform real-world video into actionable, tailored and trusted intelligence. As an enterprise-grade software solution that can be integrated with existing security cameras – both fixed or mobile – it can help academic institutions of any size stay safe against potential dangers and threats.

Across campuses of Fortune 100 companies, leading universities and major healthcare providers, some of the largest organizations in the United States trust Vintra to dramatically fortify their physical security and safety stance, even when financial budgets and resources may be limited.

For more information regarding Vintra's AI-powered video analytics for higher-education institutions, please visit Vintra or talk with one of our team members at (408) 610-8959.

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