

Rajat Khare Explains How AI-Powered Video Technology Is Transforming Remote Inspections

The way organizations monitor infrastructure is changing rapidly. Advances in artificial intelligence, computer vision, and video technology are making it possible to inspect assets remotely and identify potential problems without sending teams to every physical location.

For industries operating across large construction sites, renewable-energy facilities, utilities, and other distributed infrastructure, this shift can have significant operational and financial implications. Instead of relying exclusively on physical inspections and manual reporting, organizations can increasingly capture visual information at the source and use AI-enabled systems to analyze it.

[Rajat Khare- a deep-tech investor](#), venture capitalist, and founder of Luxembourg-based Boundary Holding, has highlighted the potential of technologies that combine operational efficiency with environmental considerations. His investment interests have included areas such as clean technology and other emerging technologies where digital tools can address real-world operational challenges.



From Physical Inspections to Remote Monitoring

Large infrastructure projects can involve hundreds of workers, contractors, equipment, and geographically dispersed sites. Keeping track of everything through conventional inspections can require substantial travel, manpower, and coordination.

The renewable-energy sector provides a useful example.

At Enel Green Power, technology engineer Michele Ronco has explored the use of short-form video as part of the information-gathering process for large renewable-energy projects. Solar developments can involve investments running into hundreds of millions of dollars, making reliable project information particularly important during construction.

Video can add an additional layer of evidence to conventional data submissions. Rather than relying solely on written updates or photographs, project teams can capture visual information from the site and share it remotely.

This allows stakeholders to review conditions without necessarily being physically present at the location. Potential issues can therefore be identified earlier, while inspection and project-management teams gain greater visibility into what is happening on the ground.

Why AI and Video Are Becoming Important for Industry

The combination of video and artificial intelligence goes beyond simply allowing people to watch a remote location.

AI systems can process visual information and identify patterns that may require attention. Depending on the application, these systems can assist with detecting equipment abnormalities, construction issues, safety concerns, or changes in physical conditions.

This creates a different approach to infrastructure monitoring.

Instead of waiting for an inspection team to arrive, organizations can capture information remotely, transmit it to an AI-enabled system, and receive analysis that can help determine whether further investigation or corrective action is required.

For companies managing numerous locations, even small improvements in inspection efficiency can translate into meaningful reductions in travel, coordination, and downtime.

Why Investors Are Exploring Video-Based AI

The development of AI-powered inspection technology represents an intersection of several growing technology trends: computer vision, machine learning, remote monitoring, and industrial automation.

For investors interested in deep technology, this combination presents opportunities beyond conventional software applications. AI-powered inspection systems can potentially address problems faced by industries where physical assets, rather than purely digital processes, form the core of business operations.

Rajat Khare has expressed interest in the broader development of AI-driven technologies and has described video-based systems as being at an early stage of their potential development.

Boundary Holding has also shown interest in sectors including clean technology, medical technology, and waste-management solutions, reflecting a broader focus on technology-driven businesses addressing practical industrial and environmental challenges.

Companies Developing AI-Powered Visual Inspection Solutions

A number of technology companies have contributed to the development of AI-enabled visual inspection and remote-support solutions.

[Khare mentions Vyntelligence](#), for example, has developed technology around video-based information gathering and analysis. Its approach demonstrates how short video recordings can become useful sources of operational information rather than simply serving as documentation.

Other companies, including TechSee and Blitz, have worked on applications involving remote visual assistance, diagnostics, and video-based analysis.

The use cases differ by industry.

In telecommunications and utilities, remote visual support can help technical teams understand equipment problems without immediately sending specialists to the site. In construction and infrastructure, computer vision can assist with identifying issues involving materials, positioning, site conditions, and safety.

As these systems mature, their value is increasingly tied to how effectively they can transform raw visual information into actionable business intelligence.

How AI-Based Video Inspection Technology Works

The underlying process typically combines video capture, data transmission, computer vision, and machine-learning models.

A simplified workflow can look like this:

1. Video is captured

Workers, cameras, sensors, or drones collect visual information from an asset or worksite.

2. The footage is transmitted

The recorded material can be transferred from the remote location to a platform where it can be processed.

3. AI analyzes the visual information

Computer-vision models examine the footage for predefined patterns, abnormalities, or other indicators that may require attention.

4. Potential issues are flagged

The system can highlight observations such as visible damage, equipment abnormalities, construction inconsistencies, or safety-related concerns.

5. Teams decide on the appropriate action

Human specialists can review the findings and determine whether maintenance, additional inspection, or corrective work is necessary.

This model does not necessarily eliminate human involvement. Instead, it can shift human expertise toward reviewing important findings and making decisions rather than spending as much time traveling to locations simply to collect information.

Applications Across Infrastructure and Industry

The potential applications extend across several sectors.

Renewable Energy

Solar and other renewable-energy installations can cover large areas and involve substantial infrastructure. Remote video inspection can help project teams monitor construction progress, equipment conditions, and site activities.

Construction

Construction companies can use visual data to monitor work progress and identify issues involving materials, positioning, workmanship, or safety.

Utilities

Utility operators often manage infrastructure distributed across large geographic areas. Remote visual assessments can help teams investigate potential problems before deciding whether a physical visit is required.

Manufacturing

Factories can potentially use computer vision to monitor equipment and production environments, helping identify anomalies that may require intervention.

Telecommunications

Remote visual assistance can allow technical experts to examine equipment and guide field personnel without always requiring an additional specialist to travel to the location.

The Sustainability Case for Remote Inspections

The benefits of AI-powered video inspection are not limited to cost and efficiency.

Traditional inspection models can involve considerable travel. When specialists have to visit multiple sites regularly, transportation contributes to fuel consumption and associated emissions.

Remote inspection can reduce the number of journeys required for certain types of assessment. A technician or specialist may be able to review video evidence remotely and determine whether a physical visit is actually necessary.

For organizations operating hundreds or thousands of geographically distributed assets, reducing unnecessary travel could contribute to a smaller operational footprint.

This is particularly relevant as businesses face increasing pressure to improve efficiency while also addressing sustainability objectives.

From Data Collection to Intelligent Decision-Making

One of the most important developments in this area is the transition from simply collecting video to extracting useful information from it.

A video recording by itself provides evidence. AI can potentially turn that evidence into structured observations, alerts, and recommendations.

That distinction is important for large organizations. The objective is not simply to replace an inspector's physical presence with a camera. Instead, the broader goal is to create a system in which visual information can move quickly from the field to decision-makers.

As AI models improve and organizations accumulate more inspection data, these systems may also become increasingly capable of recognizing recurring patterns and helping teams prioritize maintenance and intervention.

What Comes Next for AI-Powered Inspections?

AI-powered video inspection remains an evolving technology area, but its potential is already attracting attention across infrastructure-intensive industries.

The convergence of artificial intelligence, computer vision, connected devices, and remote collaboration could make physical inspections more selective and data-driven.

For investors such as Rajat Khare and technology-focused investment firms such as Boundary Holding, these developments represent part of a wider deep-tech ecosystem in which software and AI are increasingly being applied to physical-world challenges.

The long-term opportunity lies not simply in recording more video, but in making that visual information useful. When organizations can identify problems earlier, reduce unnecessary site visits, improve operational visibility, and make decisions using real-time information, remote inspection becomes more than a monitoring tool—it becomes part of a broader digital transformation of industrial operations.

Conclusion

AI-powered video technology is changing how businesses approach inspection and infrastructure monitoring. By combining remote video capture with computer vision and machine learning, organizations can gain greater visibility into geographically dispersed operations while potentially reducing inspection-related travel, costs, and delays.

From renewable-energy projects and construction sites to utilities, manufacturing, and telecommunications, the technology has applications across multiple industries.

As deep-tech investment continues to support innovations that connect AI with real-world infrastructure, video-based inspection could become an increasingly important component of modern industrial operations. The shift is ultimately from periodic, location-dependent inspections toward continuous, technology-assisted visibility—and that could reshape how organizations manage physical assets in the years ahead.

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