

Wheat from the Chaff

ACTIVU THOUGHT LEADERSHIP BY **JOHN STARK**

Prioritized, automated information presentation delivers better traffic management

Information overload is the inevitable result of the flourishing modern digital infrastructure, information economy, and Internet of Things (IoT). The result is that critical events are easily missed in the avalanche of data that teams and managers are expected to monitor.

This is especially serious in the intelligent traffic management industry, where a missed signal—captured by monitoring systems but lost in noise, or possibly missed by monitoring processes altogether—can very quickly lead to catastrophic results. The normal function of communities and society depend on traffic managers, and losses from these kinds of info-glut failures include financial losses, property destruction, injury, and sadly, even loss of life.

Traffic management organizations are increasingly challenged by conditions, that on the face of it, should result in better oversight of road conditions and a better ability to clear traffic congestion and respond to incidents on monitored roadways – however, this is often not the case.

Information overload is a real issue.

Intelligent traffic management organizations collect more sensor data, install more live cameras, put up more public signage, and have ubiquitous crowd-sourced traffic information services, along with data driven tools that all generate enormous volumes of data, all flowing into urban traffic management centers... providing detailed, comprehensive information on current road conditions.

However, information overload is a real issue under these developing conditions. Recognizing valuable information with reasonable confidence to act is critical.

Recognition is the first step, then the typical workflow can ensue: categorize, communicate with other elements of the organization, dispatch appropriate internal or external resources, modify traffic flows, inform the public, and finally clear a situation. Time is of the essence, always.

As a simple example: an accident occurs along a busy roadway... how long before you notice that it occurred? You need to quickly determine: is this a low-impact fender bender? Does the accident block or partially block the roadway? Does the accident involve more than one direction? Does it impact public transportation? Are there hazardous materials involved, or other potential risks to the public?

Without more detailed information, the operator is left to search for the right camera—if it exists—perhaps moving a camera, which can take yet more time. Mistakes are costly, dispatching a road crew to a traffic condition that clears before they arrive wastes valuable resources, but NOT dispatching to truly emergent situations is even worse.

To make matters worse, investment in technology provides senior management justification to reduce head count, further exacerbating the need for tools that help operators make faster, better decisions, with confidence.

Today, vendors are bringing tools to market that can help alleviate this situation. By ingesting signaling, camera, sensor, and socially-sourced data, it's possible to proactively and automatically determine what events are of a critical nature, collect disparate information together to provide complete situational awareness, and disseminate this information to those who need to see and understand, and who can take decisive action, ensuring our public roadways are running optimally.

Modern technology and experts pushing the boundaries of these issues can help enumerate strategies and tactics to ensure common operating picture visibility, and recommend the tools best suited to the challenge of truly effective intelligent traffic operations.